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AMIGA FORMAT

Achtung!

The Germans are coming! In offices and bedrooms from Bonn to Bremen, new software, revolutionary hardware and even new operating systems are emerging. Find out why and what this means for the future...

Accelerate!



Cyberstorm Mark 2 – the next generation of '060 accelerators from Phase 5

Browsing

Hisoft finally release IBrowse and Termite TCP – bringing the Amiga up-to-date on the net



Storming

The very latest C compiler has arrived from Germany – does StormC herald a new dawn for Amiga development?

Quantum Leaping

We continue with our extensive exploration of emulation. This month we take a look at QDos – the first multitasking operating system for home computers

Alien Breeding

You may have created a quick layout, but what are you going to put in it? This month's exclusive AB3D II editor tutorial will show you

Punishment!

A blow by blow review of what is claimed to be the greatest Amiga beat-em-up ever, Capital Punishment!



Reviewed this issue: DNA, Humans III, Cyberstorm Mark 2, CD Drives, StormC, Termite TCP & IBrowse.
PLUS: tutorials on Multimedia, Alien Breed 3D II, OctaMED and Real 3D 2

See back cover for details of the CD

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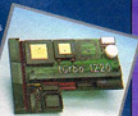
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Achtung!

Much Amiga hardware is now being developed in Germany. German companies like Maxon and ProDad are powerful forces in the software market. What exactly does this mean for the future of the Amiga?

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Coverdisks

Art Effect 1.1



Disk A
The demo of this great new art package – at last the Amiga might have a program to rival Photoshop on the Mac and PC

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Fortress of Eve

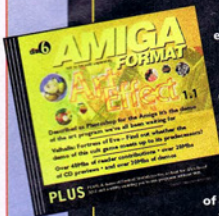


Disk B
A demo of the latest *Valhalla* game.

Plus: *Football Stats Pro*, a cheat for *AB3D II* and a utility enabling you to run programs without going through Workbench.

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CD-ROM



As well as all the excellent programs that feature on this month's Coverdisks we've got over 20Mbs of music mods, over 40Mbs of reader contributions, over 20Mbs of CD previews and over 30Mbs of demos. You'll also find hints and tips for over 1300 games. Enjoy!

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Coverdisk Instructions

AMIGA p105

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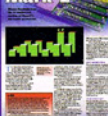
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Cyberstorm Mark 2



DNA



DNA P35

Genetic puzzling on the battlefield in this interesting first release from Applause.



REAL 3D2 P92
We never knew Graeme had any sort of talent whatsoever until he started writing this excellent tutorial.



EMULATE P23

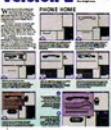
If you have a hankering to return to the days of the QL, check out this feature (and find the software on the CD).



CYBERSTORM P54

Not bigger, but better and faster certainly, as Simon Goodwin finds out. Also, check out the news pages for the latest on the Cyberstorm PowerPC.

Real 3D Version 2



IDE DRIVES P56

Connecting external devices just gets cheaper and easier as this new system proves.



HUMANS III 37

More comic puzzling in the follow up to, er, Humans II, I expect.

Month In View

This month the irrepressible Nick Veitch is trying to convince us all that C compilers are actually important...

Four years. That's about how long it is since I did any C programming. But this month I was compelled to check out the StormC development system from Haage & Partner (who, incidentally, also make an appearance in our cover feature this month). It wasn't just that I had a desire to see how much I could remember, or even that StormC looked so good that I couldn't resist playing with it (although it does).

It was rather the realisation that this software, along with other development tools like PhxAss (written by another German, who also appears in our cover feature), represents the future for

the Amiga, certainly at the high end level, and eventually for home users too. Both of these products are being developed to take advantage of Amigas equipped with faster processors (speaking of which, check out the news on the PowerPC upgrade). Software development is crucial. The PowerAmiga will have the raw speed to thrash the average PC, but without the software it will be all for nothing. So you see, tedious as these things may be to some people, they are actually vital to the future of the Amiga.

Of course, I did have to take a break or two to play the rather excellent Capital Punishment...



Nick Veitch, Editor

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Complete CD Rom for all Amigas

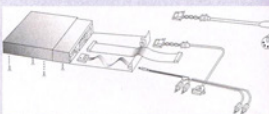
Quad Speed CD Rom for A500 (needs AlfaPower V6.8 or higher)	£129
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External IDE CD Rom Upgrade Kit comprises of:

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All hard drives comes with cable and software.	

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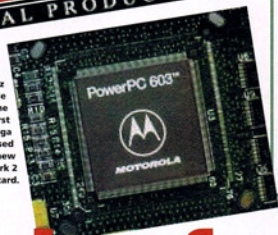




AMIGA FORMAT news

- Phase 5 to concentrate on add-on cards p11
- Design the new Viscorp logo p12
- More mirror sites for CUCUG p13
- ClickBOOM exclusive p14

A 150MHz PowerPC 603e will form the basis of the first PPC Amiga expansion, based around the new Cyberstorm Mark 2 accelerator card.



Delay for Phase5 PowerUp Project

Phase 5's planned PowerPC based Amiga, the aptly named PowerUp project, has hit delays, largely as a result of wrangles over Escom's bankruptcy.

Revealed in *AI86*, the PowerUp project is an ambitious attempt to produce a PowerPC based Amiga clone which would have backward compatibility with older software, but also take advantage of the much more powerful PowerPC processor.

Now Phase 5 tell us they have been forced to modify their initial plans, after it became clear that talks with Viscorp could not commence until the details of their purchase of Amiga Technologies have been finalised.

The short-term goals of the the PowerUp project have now been adjusted to take into account the fact that early availability of a fully PowerPC based AmigaDOS replacement is unlikely. Instead, the emphasis of the project at the moment is to get their PowerPC upgrade cards finished.

These cards, based around the Cyberstorm Mark 2 (reviewed on page 54), will piggy-back a 68040/060 and a PowerPC chip, allowing full backwards compatibility with the existing

operating system (existing Cyberstorm Mark 2 owners will even be able to add the PPC module to their card). The PowerPC chip will be accessed through a series of special libraries, enabling programmers to develop and test PowerPC software in a stable environment. A special native PPC scheduler will allow multitasking, and parallel processing with the 68k chip, but the PPC will still not be able to call OS functions directly.

This upgrade card will then form a solid basis on which new software, and indeed the replacement operating system, can be developed - specifications for the completely PowerPC-based Amiga clone should be released in the next few months.

Developer versions will begin shipping late September, with a full release to follow soon.



PageStream3

SoftLogik have pledged their continued support for the Amiga with the announcement that they are releasing PageStream 3.2.

The company say that the release of the fully featured DTP package illustrates their continued commitment to their Amiga customers.

"We'd like to thank our customers who have stuck with us through the last couple of years" said a company spokesperson.

"The only way we can continue to support them is if we release regular upgrades. We've been listening to their requests and have added some of the most popular features," he continued.

New features include:

- Configurable toolbar
- Show/Hide toolbar
- Eyedropper tool
- Hanging indent button
- Increase/Decrease Indent buttons
- Default Tab spacing
- True Pasteboard
- Open Recent
- Effect filters
- Masks

Matching script commands have been added for all of the above features. The price for the new release has not yet been set, but there is expected to be only a minor upgrade fee.



SoftLogik PUBLISHING CORPORATION

PageStream Pre-Release for Macintosh

Get a special pre-release version of PageStream for Macintosh for just \$50. This is your chance to get a world-class desktop publishing program at a once-in-a-lifetime price. The offer won't last long!

Coming in September: PageStream 3.2 for Mac & Amiga

SoftLogik will soon release a surprise update to PageStream 3.2.2 which includes a custom toolbar, automatic nested indents, an Eyedropper tool for faster formatting, effects, and much more!

How to use PageStream 3.1 or 3.2 for Amiga

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Look also for the most popular Amiga word processor! Use TrueType Fonts, get up to 30 times faster, and take advantage of background printing, create text effects, use true Touchstones, and more!

DO IT YOURSELF

Many Amiga users are keen to upgrade their equipment by the cheapest means possible and Eyetech have just announced a range of products designed to help people do just that.

If you want to buy part of the CDPlus package to use with an existing CD-ROM or hard drive then Eyetech are offering power supplies, cables and casing, all at very reasonable prices.

Eyetech are also offering a 10% reduction on all orders over £100 made before the 30th.

September. For more information call Eyetech on 01642 713185 or email at: eyetech@cx.com.pulink.co.uk

A WELCOME TO POWER READERS

Hello there. You used to read that Amiga Power didn't you? Well, look, we're not going to hold it against you Okay? I mean, they've all pushed off now, and anyway the differences we had were fairly minor. I mean, take Rise of the Robots. We gave it 19%. It was not very good. Likewise Kick Off '96 is this year's lowest scoring game with just 9%.

So you see, we were all on the same side really. And if you don't believe us, check out the kicking Andy Smith dishes out to, amongst other things, games sent in by our own readers...

24 HOUR HELP

Direct Software, the company featured in last month's news are now running a 24 hour helpline for Amiga users. Call them on 01683 769498.

OUR APOLOGIES

Last month (AFB9) we failed to credit Alexis Lissos for the artwork on the cover. Our apologies to Alexis for the mistake.

Announcing AWeb II

A Web, the popular Amiga web browser is now updated and is being released commercially. The new browser will be bundled with "HTML Heaven", a suite of HTML generating tools by Paul Kolenbrander, and additional web utilities in a package to be called "AWeb II". This will be distributed in the UK by Blittersoft at a retail price of £39.95.

AWeb II is available now and will include:

- Support for background images, localisation, icons, hierarchical list, background/text/link colours, image borders, centering, enhanced lists, user-configurable AREXX menu, more AREXX commands, limited frame support, history window, external default images, plug-in support for mail/FTP/telnet/news, automatic TCP stack start/stop, and other new HTML 3.2 tags, with more to come.
- HTML-Heaven v2.0, with new ToolChest and Charrie programs,



added support for HTML 3.2 tags, HTML tutorial, and WYSIWYG editing using AWeb with almost any AREXX compatible text editor. Create your own Web Pages and documents with ease by simple point & click insertion of tags from the tool lists, and now Charrie adds HTML entities as well. More new features are under development.

- AWebMail & AWebFTP AREXX plug-ins by Josef Faulkner.



- FTPMount v0.8, an FTP filesystem plug-in by Evan Scott.
- HTTX, an HTML to text conversion program by Gabriele Favrin. This will allow the page to be either saved as a file or printed as formatted text via the included AREXX plug-ins.
- Some additional AREXX plug-ins and Locale catalogues should also be available by the release date.
- A free upgrade will be provided to registered purchasers of AWeb II once the addition of table support and further HTML 3.2 features have been completed.

The authors wish to assure the existing registered users of the shareware versions of AWeb v1.x and HTML-Heaven v1.x that they will be able to upgrade to the new version.

AWeb II requires at least 2Mb RAM and more is recommended; Workbench/KS 3.0 or better; a TCP/IP stack to access the WWW; and the appropriate GIF and JPEG datatypes.

Design a Logo

Viscorp have announced a new competition that aims to prove their commitment to the Amiga. They want a new logo, incorporating the trademark images of the Amiga and are inviting budding artists to have a go at designing one. The logo will appear on all corporate information and the winning design will be credited on the official corporate information packet. The specifications of the new logo are as follows:

1. The logo MUST be in a form that will show up in NTSC and PAL broadcast video.
 2. The logo must be in a form colour separable and printable.
 3. The logo must incorporate the Amiga double-checkmark in the "V" of Viscorp.
 4. The logo should incorporate the Amiga rainbow colour stripes in the "o" of Viscorp.
 5. The logo must be designed on an Amiga.
- All entries should be sent to Viscorp, 111 N. Canal St. Suite 933, Chicago, IL 60606, USA.

Save Save Save...

Gordon Harwood Computers have announced price cuts on their Amiga products and the release of a range of new Blizzard accelerators.

The price cuts, effective from September mean that buyers can save £20 on the Blizzard 1230-IV and the Blizzard 1260 and up to £50 on the Cyberstorm II '060.

New products due for release during September and October include a low cost Blizzard 1240 for Amiga A1200 Tower System owners, a Blizzard 2040 for the A2000 and a Cyberstorm II 040 accelerator for the



A3000/3000/4000/4000T. For full details of price reductions and new products contact Gordon Harwoods on 01773 836781 or email at: 100271.3557@compuserve.com.



CUCUG web site goes East

Amiga users in Eastern Europe can now access Amiga sites on the web faster and more reliably. The Champaign-Urbana Commodore Users Group (CUCUG) announced today that Inter-Spider, an Internet Service Provider located in Cracow, Poland, would be hosting its popular World Wide Web site.

CUCUG maintains the award-winning Amiga Web Directory and Agnes, an advanced Amiga WWW search utility. Both have become very popular with Amiga users throughout the world.

A process known as "mirroring" makes an identical copy of a Web site available to users closer to their own connection on the Internet. This usually results in more reliable connects and faster response.

CUCUG's webmaster, Kevin Hesel stated, "Users in Eastern Europe have been asking us to set up a mirror there for quite some time. We are grateful to Inter-Spider for finally making it possible."

Zbigniew Baniewicz, proprietor of Inter-Spider added, "There is a need to establish an easy-to-connect site with news from Commodore world for many Polish Amiga users." He went on to say that, "there was also a sentimental reason - my first computer was a Commodore VIC-20!"

According to Hesel, this is CUCUG's fourth mirror. Other mirrors are currently located in Australia, Italy and the United Kingdom.

The primary CUCUG site is maintained at Champaign, Illinois in the United States. The address for the new CUCUG mirror site in Cracow is:

<http://www.ispid.com.pl/mirrors/cucug/>

CUCUG's main site can be found at:

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

and the UK mirror site can be found at:

<http://www.iprom.com/amigaweb/amiga.html>



Iprom is the UK mirror site for the Amiga Web Directory.



The Champaign-Urbana
Commodore Users Group

The Amiga Web Directory is a hugely popular web site with Amiga users from all around the world. Now users in Eastern Europe can enjoy it too.

Winners

In the August issue of Amiga Format we ran a competition in conjunction with 21st Century to win a set of four pinball games, comprising Slam Tilt, Pinball Fantasies, Pinball Illusions, and Pinball Mania. We were inundated with postcards - but surprisingly many of you got the answers wrong. The correct answers were:

1. Slam Tilt was the game to receive the highest review score in AF.
2. A 'tilt' is a bad thing that happens when you jiggle the pinball table.
3. Nick Veitch had the best score on the local 'Twilight Zone' table and
4. Tommy was the name of the deaf, dumb and blind kid in the famous opera who "sure played a mean pinball".

The winners of the games are: Lee Atkins, Oswaldswile, Lancs; Miss G. Corns, St Helens, Merseyside; Mr P. J. Moon, Portland, Dorset; Luigi Dorezno, Italy; Chris Ward, New Eldham, London; Andy Till, Wimborne, Dorset; Doug

Nelson, Northampton and Rachel Southgate.

London. Congratulations to all the winners - if you haven't already got your prizes they will be with you soon.

The Bradford Column



It's a real shame when previously respectable software publishers decide to push any old rubbish out because they decide a format is living through its last days. Do they think that owners are so desperate for new software that they'll buy anything simply because it's

new? Obviously they do; that can only be the reason why Anco saw fit to stick Kick Off '96 out into a disbelieving marketplace. Well, they're only Amiga owners, aren't they? This will probably be our last release so it doesn't matter.

Ridiculous. Should they ever decide to release another Amiga title the poor blighters who have rushed out and bought KO '96 will shun it like the plague. And what about Amiga owners who subsequently move to other formats? When they see an Anco title: 'Ah Anco, that rings a bell. Oh yes, Kick Off '96. Ugh...?' And bloody good job too. If any other software publishers have a cack title kicking around please, thanks for the thought, but we'd prefer to remember you when you were at your best. And it's in your own best future interests too.

Do they think that owners are so desperate for software that they'll buy anything?

There is one good side to the world and his wife moving to PC too, of course. Those insidious individuals who made a living out of commercial piracy have also deserted the Amiga. Copying Monkey Island 2 onto 11 floppies? Leave it out John, that's far too much work. You want CD-ROM, you do. Get 100 titles onto one CD. Lovely.

Hopefully the software companies and developers who continue to support the Amiga will not suffer anything like as much as their predecessors (who, ironically, have nearly all gone to PC and are suffering even worse than ever). They might not sell 100,000 copies of Charlie Chimp 4 (hell, they won't) but neither will it be making unscheduled appearances on a BBS or car boot sale. Which, given the enormity of the problem in the PC market (bracing itself for the arrival of DVD - each disc can contain the equivalent of 12,430 3.5" floppies) must be some consolation.

Finally, has anyone ever seen an Amiga Surfer pack outside of a computer show mock-up-this-is-the-box-and-it's-shipping-real-soon-now? Did it ever come out? Even little old ladies are now talking about the Internet and AT missed a glorious opportunity of hitting the public with a 'all in one box at a reasonable price' Internet proposition. And every day that goes by these little old ladies are spending £1,500 out of their pensions on a machine that will be obsolete in a year. They could be buying an old-tech machine which would have done the job just as well but for a third of the price. Makes you bloody spit, doesn't it?

Dale Bradford is now appearing in the popular farce "When Did You Last See Your Retailer?" at London's Olympia. Amiga Format doesn't necessarily agree with this or, indeed, anything he may say in his so-called "column".

Become an expert at the rather satisfying dinosaur slug fest that is Primal Rage

GAMEBUSTERS

PAGE 43



To cap it all?

Full of determination to create what they consider to be the best Amiga games ever, **Andy Smith** chats to Canadian newcomers ClickBOOM...



So, Alex, has anyone, you know, told you that you sound a lot like Peter Lorre? Go on, say "The haaaand".

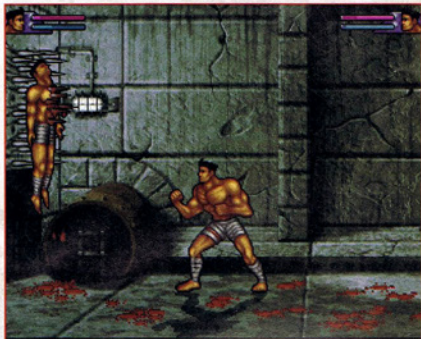


No really, Alex, you do! Don't laugh out of politeness, I'm sure I'm not the first to have pointed it out to you!

Capital Punishment's creators, ClickBOOM, may reckon they've created the best Amiga fighting game ever but for the definitive review, check out page 31 of this very issue.

One thing's for sure though, they talk a good game. Alexander Petrovic, manager of ClickBOOM, reckons they've knocked all previous Amiga fighting games into a cocked hat by concentrating on the playability. "We've put a lot of effort into making *Capital Punishment* look tremendous - our guys can do some amazing graphics - but that's not the main thing. We wanted the game to be playable above all..."

Capital Punishment began life a couple of years ago after Alex had been tinkering around on the Spectrum during the 80s. After being wowed by some early Amiga games and after becoming bored with life as a graphic designer, Alex persuaded his bosses at Pxl Computers to get into games. Amiga games. But why the Amiga? And not the PC? "We love the Amiga, anyone can do PC games, and we have also started to develop *Capital Punishment* for the PC, but it's not as advanced as the Amiga version because that's the one we've been concentrating on. I love computers, I'm not into consoles like



Let's call this 'Hanging around?' How about 'stuck up?'. Or maybe you prefer 'nailed?'. We could do more, but I think you get the picture. This signifies the end of the bout by the way.

the Sony PlayStation or the Sega Saturn because the games you get for them look fabulous, you know, but they have no playability. I want to create games that are fabulous to play as well as being fabulous to look at."

And what makes *Capital Punishment* better than *Street Fighter*, *Primal Rage* and all the others that have gone before? "Those games are like, you know, not authentic enough. You can just hit your opponent somewhere near the arm say, and they fly across the screen. We don't want that, we want people to play *Capital Punishment* and be able to recognise that this is like real gameplay. You know."

And so what of the future? "Obviously we've got to see how well *Capital Punishment* does, but we're sticking with the Amiga. That's our plans. Obviously if it does really badly or we get really ripped off by the pirates then we're going to have to think again, but we're sticking with the Amiga. We're also going to be doing stuff on the PC too, but we love the Amiga and we will be making

more games for the Amiga. Our next game's going to be a kind of shoot-'em-up. Possibly."

Rush along to page 31 for the definitive review of *Capital Punishment*, and if you'd like to get hold of a demo of the game visit their website at:

www.io.org/~clkboom/amiga/ or write to them at:

Pxl Computers • ClickBOOM,
1270 Finch Avenue West,
Unit 13 • M3J 2G4,
Toronto • Canada



DOF! The bloke in white bandages slugs the bloke in blue bandages. Probably for looking at him in 'a funny way'. Or spilling his pint.



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"Argh! Crumbs, Colin, get it away!"
"Sorry Alan, thought you'd want a look..."

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As a reference tool it's ideal for all the family. If you just want to sit back and watch or have the younger members of the family entertained, the Epic Interactive Encyclopedia features many varied multimedia tours. Just click and go!

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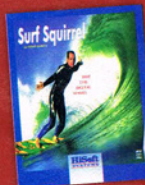
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Made in Germany

From accelerators to operating systems, big things are happening in Germany, as *Amiga Format* were pleased to discover...

The Amiga may well have been originally designed in America. It may have originally been owned by an American company. It may even have been accompanied by manuals which insisted on Americanised spellings. But the spiritual homeland of the Amiga is Europe. Nowhere else did the machines sell in such huge numbers, or have so much support.

Not surprisingly then, a lot of software and hardware development goes on in Europe. While it used to be true that the UK had it's fair share, maybe more than it's fair share, of developers (and don't think for a moment that we don't have them anymore – look at Digita, Almathera, HiSoft et al.) it seems more and more the case these days that German developers have a large share of the market.

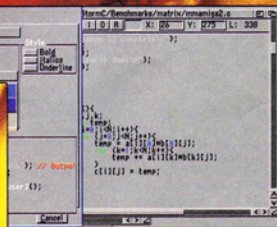
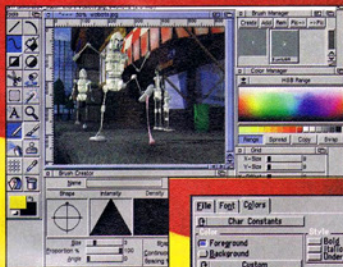
Over the next few pages we will be exploring the German Amiga market and it's key developers, how the machine got where it is and where it's going in the future. As you will see, the very future of the Amiga is at stake...

Contents

So, what exactly is the connection between Germany and the Amiga? **Page 18**

Amiga developers, Haage & Partner, give us their views. **Page 20**

Simon Goodwin visits Germany to bring us an on-the-spot report. **Page 20**





First of all, there was the A1000. While it was being launched in America, amongst loads of typically over-the-top razzamatazz and parties and endorsed by famous names like Andy Warhol and Debbie Harry, Germany, like the rest of Europe, had to wait.

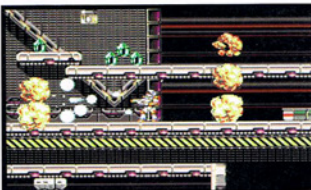
When the A1000s did arrive there were no marching bands to hail their arrival, no famous artists to wave and smile. There weren't even that many dealers stocking them. As in the UK, they slipped quietly into a few select stores, and were quickly purchased by the few people who knew anything about them.

But soon, all that was to change. The A500 had an immediate fanatical following. Just like in the UK, this low price, high spec Amiga hit the right spot when it came to value for money.

Datlight Robbery

One of the major reasons for the rapid uptake of machines was, ironically, the very reason which started to make game developers wary of the Amiga market – piracy. Not only was the Amiga cheap and powerful, with a great range of games software, but you could be assured, if you really tried, to get hold of most of this software very cheaply.

While a significant amount of piracy in the UK was done on a more personal basis (the old "hiring" a game from a legitimate software library for a night, copying it and then returning it – or even more evilly, buying the game, copying it and taking it back for a refund claiming it was defective), our cousins on the continent were even more organised. A former German "cracker", turned demo-coder told AF: "Everyone was doing the same thing. There didn't seem to be anything wrong in it, it just seemed like the thing to do. You didn't even have to bother with the pirate [BBS] boards, so many



It's just a shot away... *Turrican* was fast, playable, explosive and German.

people had the equipment you could even buy [pirated disks] in stores."

It is hardly surprising that much disk copying software emerged from Germany and surrounding countries. Of course, there were legitimate uses, but it would be foolish to believe that everyone used it legally...

This isn't to say there was any more piracy going on in Germany, or Europe in general, just that it was better organised and therefore, in all probability, had a greater impetus on the early popularity of the Amiga.

Starting out

It was around this time that software development really got off the ground in Germany. While the majority of Amiga applications development was undoubtedly taking place stateside,

German developers have also been responsible for classic games, like *Historyline*.

some German start-ups were beginning to enter the really vital market – games.

Companies like Rainbow Arts and Blue Byte were instrumental in raising the profile of the German market on the national stage. Both would produce worldwide best-sellers in the form of *Turrican* and *History Line 1914-17*.

Sadly, the "games-machine" label hurt as much as it helped. Few people would take the Amiga seriously as a personal computer, simply because it had some great games available. Does the Amiga still have the stigma of being a games machine in Germany?

"Yes, certainly, because C= and AT did not do any campaigning in Germany to change this. Some years ago they did a very nice advertising campaign in the US, but I think they should have done it in Germany instead!" Haage & Partner told us.

Frank Wille was more cautious about the terminology: "Unfortunately yes, although there are no games for it anymore. Maybe the word 'unserious' would be more suitable."

Sold!

The German Amiga market must have had a boost when Escom secured the



PROFILE: PRODAD

Background: Software developers, responsible for Gold rated products *Clarissa*, *Adorage* and *Monument Designer*. Amongst other things, they developed the SSA animation standard, which permits smooth animations in a variety of resolutions without palette-locking. Web site – <http://www.prodad.de>

★ What motivates you to develop new products for the Amiga

The Amiga's comfort, the hardware and the multitasking operating feature, motivate us to develop Amiga software.

★ Why are so many Amiga developers in Germany still developing for the platform, when elsewhere they have moved to other platforms?

Because of the success on the local market. The ProDAD operating system p-OS due for release in Spring '97 will motivate other developers to produce software. Without much effort, existing Amiga software can, in the future, also be used with p-OS on other platforms like the PC and Mac. This then means a much bigger market for the software originally developed for the Amiga.

★ Why do you think the Amiga has been so successful in Germany?

The Amiga has been so successful in Germany because of its strength in

Video editing, the PD concept and obviously because of ProDAD software...

★ Do you think that, on the whole, German developers have been more successful than their counterparts in other countries?

That question cannot be answered with a yes or a no. Innovations have always come from developers in different countries – the UK, US and so on. The German market is just our main market (Germany, Austria, Switzerland)

★ Do you think Escom helped or hindered the Amiga?

Escom, or Amiga Technologies have both hindered and helped the Amiga. They were a help in terms of production, but we feel they definitely hindered innovations.

★ What are your future plans for the Amiga?

As we have already mentioned, ProDAD is developing the p-OS which will also run on the Amiga, offering more and new possibilities to compensate certain weaknesses or older parts of the hardware.

The original Amiga platform will not be neglected. With the development of p-OS the Amiga will, indirectly, be better supported, since more products will be available for the Amiga and new markets will be opened.

PROFILE: FRANK WILLIE • PD AUTHOR

Background: One of the first Amiga owners, Frank has provided the world with several important development tools completely free of charge. Most notable of these is the PhxAss assembler, the first Amiga assembler to support the 68060 chip.

★ **How did you first get involved with the Amiga?**

In 1986, after working for three years with the VIC 20 and C64, I was really fascinated about the capabilities of Commodore's new system - the Amiga. I bought my dream computer, an Amiga 1000 with a 1081 monitor, in the same year.

★ **What motivates you to develop software on the Amiga?**

In my case, it's only the fun of programming in Assembler or C in my spare time. There are no financial aspects, as all of my software is freeware anyway.

★ **Why do you think that the Amiga has been so successful in Germany?**

The predecessor of the Amiga, the C64, was very successful in Germany too, so it was quite logical that most of the C64 owners upgraded to an Amiga. In those times (1986-90), there was no real opponent here in Germany. The Atari ST series was not as good as the Amiga and IBM-PCs or Apple's Macintosh were far too expensive.

Computers which were popular in England, like the Spectrum, BBC, Acorn, etc. had nearly no importance in Germany.

★ **Why are so many Amiga developers in Germany still developing for the platform, when elsewhere they have moved to other platforms?**

Maybe it's because there is still a large community of experienced Amiga developers, who have been programming since the '80s. Most of their systems are heavily upgraded and they invested thousands of DMs in these years. Some of them bought a PC for playing games on, but most programming is done on the Amiga. As far as I know, there are as

many Amigas in England as there are in Germany, but the English Amigas are usually smaller and are often used for playing games. I think this is the final difference between the two big Amiga nations.

★ **Do you think that, on the whole, German developers have been more successful than their counterparts in other countries?**

No, I don't think so. Okay, there is a lot of high quality PD software from German developers, but in my opinion the commercial Amiga software from America and the UK is better both in quantity and quality.

★ **Do you think Escom helped or hindered the Amiga?**

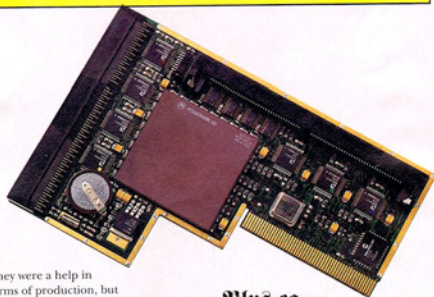
I think Escom helped to avoid the complete disappearance of the Amiga in the last months. But there were also no improvements in this period. Too many developers, or more precisely, software companies (as most developers prefer programming the Amiga over other systems), have left the Amiga in this time. In Germany it's now impossible to buy Amiga software in the big warehouses or computer shops.

★ **What are your future plans for the Amiga?**

I will continue supporting the Amiga, because it is more fun than programming for any other system. There will be a new release of PhxAss/PhxLink in the next few weeks on Amint. Additionally, I plan to release a freeware version of the PowerVisor debugger, which I am developing in place of the original author, Jorrit Tyberghein.

Further information:

Frank regularly post updates of his work onto Amint, and hopefully we will be able to get the next version of PhxAss on the Amiga Format CD next month.



They were a help in terms of production, but we feel they definitely hindered innovations."

Some of our interviewees were even less kind, but none was more philosophical than Haage & Partner: "When we heard of the take-over by Escom we thought it was good, but now we know it wasn't. On the other hand, we don't know what other buyers would have done with it."

Probably Frank Willie, author of the freeware assembler PhxAss, captured the general mood with his comments "I think Escom helped to avoid the complete disappearance of the Amiga in the last months. But there were no improvements in this period. Too many developers, or more precisely, software companies (as most developers prefer programming for the Amiga over other systems), left the Amiga during this period."

Plus ça change...

Well, whatever next. Viscorp's purchase of Amiga Technologies must have also come as a mixed blessing to many developers. Whilst at least the machine still had a future, the people controlling that destiny live across the ocean.

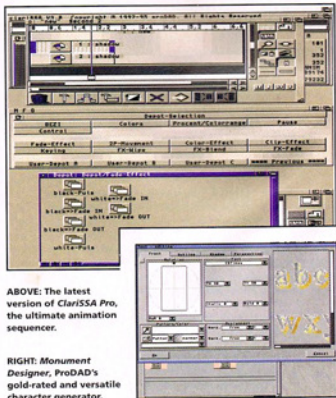
But the new willingness to discuss licensing the Amiga patents and technology has opened a new market for many manufacturers - cloning.

The German arm of Macrossystem has already produced the DraCo, a machine which is graphically compatible with the Amiga, and surely everyone must have heard about Phase 5's planned PowerPC-based Amiga. Although the project has been going through some teething trouble (see news this issue) and they got off to what

rights to the Amiga and all associated technology. For the first time, the Amiga was owned by a European company, and one which committed itself to developing the Amiga.

Unfortunately this was not always the case. As we now know, one of Escom's major failings was a big surplus in the month department coupled with a deficiency in trousers. They talked the talk, but when it came to actually doing things they seemed unwilling, or just simply inept. What we didn't know was that this was also keenly felt by the developers, who generally got little support from Escom.

According to ProDAD for example, "Escom, or Amiga Technologies have both hindered and helped the Amiga.



ABOVE: The latest version of Clarissa Pro, the ultimate animation sequencer.

RIGHT: Monument Designer, ProDAD's gold-rated and versatile character generator.

Continued overleaf ➔



And the innovation never stops – this image is from the excellent new image manipulation package, *Art Effect* from Haage & Partner.

can only be described as a "bad start" with Viscorp, this looks like the project which will reach fruition first.

The PIOS development team, although not exactly producing a strict Amiga clone, are developing a new operating system for PowerPC machines which they hope will have a degree of Amiga compatibility. Although the group includes industry names like John Smith (former head of Amiga Technologies UK and ex long term Commodore employee) and Dave Haynie (legendary ex-Commodore hardware designer, and, as a sideline presumably, author of the indispensable *DiskSalvo* disk recovery software), it is really based in Germany and is headed by Stefan Doymeyer, former president of Amiga Technologies GmbH.

ProdAD, the creators of such excellent animation tools as *Adorance* and *Clarissa*, are also working on a portable replacement operating system. This would allow developers to create applications which would work on other platforms as well as the Amiga.

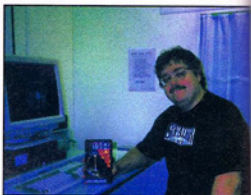
All of these people have realised something – the future battlefield of the computer market will not necessarily be hardware based. Slowly but surely it is becoming a question of which operating system to run. How ironic it would be if in the future, all those people who had abandoned the Amiga were back using Amiga-style

applications for a platform independent, Amiga-style OS...

Mission Impossible

On a special mission for AF and thinking nothing of his own personal safety, the intrepid Simon Goodwin investigated the grass roots Amiga scene in Hamburg...

Amiga made a small showing in the city centre, with the A1200, A4000T and AT/Microvitek monitor on display in the giant Brinkmann department store, priced at 598, 598 and 3998DM respectively. Both machines were running impressive demos and attracting some interest. Serious software and hardware expansion occupied an adjoining glass cabinet, with Dpoint V, Caligari 24, Maxon CAD, Final Copy/Data/Calc, Directory Opus 5, TurboPrint 4, OctaMED 4, Multifax, Cinemorph, Lightwave 3D (798DM), Repro Studio, Montage 24, various incarnations of Scala Video Creator/Director, Steinburg Pro 24, Turbo Calc, Pixel 3D, CanDo, Asim



The PD scene is very strong in Germany. You may not recognise this man, but you know his work, for this is Tobias Richter.

GDFS, DiskSalvo 3 and other packages all in stock.

Brinkmann also stock a range of Blizzard accelerators, including the 1220-4, 1230-4V and 50MHz 4030 model. The overall impression was of a serious micro with strong support in video and multimedia. The demo A4000T had a stereo sound cartridge



PROFILE: HAAGE & PARTNER

★ How did you first get involved with the Amiga?

Most of the founders of H&P used C64 and the Atari ST. Later we all switched to the Amiga because it was a more exciting machine.

★ Why do you think the Amiga has been so successful in Germany?

I think that in Germany most of the Amigas are used by students. These guys were looking for an interesting machine a bit like the Unix machines they're using at university. They especially like the multitasking, the CLI environment and the easy to use GUI. I think most of them would never buy a PC for personal use.

★ Does the Amiga still have the stigma of being a "games" computer in Germany?

Yes, certainly, because C64 and AT did not do any campaigning in Germany to change this. They did a very nice advertising campaign in the US, but they would have been better doing it in Germany instead. I think nowadays most of the people don't know anything about Amiga, – there must be an image campaign to make the Amiga popular again.

★ Why are so many Amiga developers in Germany still developing for the platform, when elsewhere they have moved to other platforms?

Again I think that most of the Amiga users are students and there is

still no real alternative for them.

★ Do you think that, on the whole, German developers have been more successful than their counterparts in other countries?

No, I do not think so. Some years ago, when the Amiga was a popular computer, the big companies stayed in the US or the UK and there were not so many companies in Germany. Nowadays there are more powerful companies in Germany, but because of the situation they are not all that successful. But I hope that there will be better times for all of us.

★ Do you think Escom helped or hindered the Amiga?

When I heard of the Escom take-over I thought it was good, but now I know it was not that good. On the other I do not know what other buyers would have done with it.

★ Which of your products are you most proud of and why?

That is definitely StormC, our powerful development system for the future of the Amiga. We will also support the PowerPC Amiga (from Phase 5) and the new p-OS from ProdAD.

★ What are your future plans for the Amiga?

We plan to develop a PowerPC version of StormC, and new and improved versions of StormC, StormWIZARD and Art Effect. And then there are some projects that are under development but we do not want to talk about them just now.

PROFILE: PHASE 5

Background:

Phase 5 are designers and manufacturers of possibly the most successful range of accelerators ever.

Web site:

<http://www.phase5.de>



★ How did you first get involved with the Amiga?

I got involved with the Amiga back in 1986, when the first A1000's arrived in Europe. The Technical Director of Phase 5, Gerald Carda, BTW, worked with the first A1000 that ever came to Europe and was the founding editor of Germany's first dedicated Amiga magazine, the KICKSTART. We met, when I started work as a freelance writer. Many people here at Phase 5 had been involved with the Amiga from the beginning, and have years of experience.

★ Does the Amiga still have the stigma of being a "games" computer in Germany?

No, not really. Funny enough, PC people "discriminated" against the Amiga for being a games computer. But, today much growth in the home PC market is driven by games. I believe the Amiga is recognised by its users as a flexible, creative and open system, with powerful system software but outdated hardware.

★ Why are so many Amiga developers in Germany still developing for the platform, when elsewhere they have moved to other platforms?

There is still life in the Amiga market - a lot of life. We honestly don't want to see the Amiga vanishing, as we still believe it is - in respect of the ideas and concepts - the best and most flexible computer system. But it must be updated to tomorrow's technical standards. I think other developers think the same. At Phase 5 we've been very successful with our Amiga products, and we are continuing make technical progress - as with our upcoming PowerPC accelerators and the Custom Chip Set which we are working on. We will also offer some products for other platforms in the future, but we are increasing our research for Amiga-related technology.

★ Do you think that, German developers have been more successful than their counterparts in other countries?

I believe Phase 5 have been successful because we developed products the market wanted - in respect of performance, quality and price. It also helps to be users since the beginning - we know what users want.

★ Do you think Escom helped or hindered the Amiga?

In the end, they hindered. Escom was never a development-oriented company, and nor was AT. The market was strengthened for some time and new machines appeared on the market. But in the end, success counts, and Escom/AT have not been successful.

★ Which of your products are you most proud of, why?

We are proud of all our products. A product such as the Blizzard 1230, which makes thousands of users happy, is something to be proud of but in the end, every product has its place and gives us a reason to be proud.

★ What are your future plans for the Amiga?

We will bring out PowerPC accelerator cards and we'll also support CyberGraphX with new 3D and multimedia technology. But, the main project we're working on is a Custom Chip Set due for release next year. This Chip Set will integrate fantastic performance and functionality and will be the heart of a system which deserves to be called an Amiga successor. It is necessary to follow a vision of how computing could look like in the future - and this vision cannot come from a PC market which is focused on building cheaper systems and saving money. A computer should be affordable, but also innovative and powerful. Then it will be possible to build competitive systems ready for the demanding applications of the upcoming years.



ABOVE: The world's biggest Amiga shows have always taken place in Cologne.

LEFT: Don't forget that Amiga Technologies was once owned by a German computer firm - now, sadly, no longer with us.

and CD-ROM drive fitted, and was running *Scala* very nicely on an Acorn monitor.

The games choice was in a separate corner of the store, and more limited, with most titles priced at between 70 and 100DM.

A little further out of town, on the Wandsbecker Marktstrasse, I found a really impressive Amiga shop which would put to shame any I've visited in the UK. MeComp Multimedia are Amiga specialists with a colossal range of Amiga CDs, games, serious programs, magazines and hardware, and knowledgeable, enthusiastic staff. I soon met an American Amiga fan there, who contrasted the support for Amigas in Germany with the USA, where Amiga dealerships have all but vanished.

MeComp has about twenty boxed Amigas on display, including the Amiga Magic Pack, Surfer Packs, A4000T and even a couple of CD's. Their own A4000 was reborn in a PC tower, while external Amiga floppies, Alfapower A500 hard drives, SCSI and IDE CD-ROM drives lined the walls and aisles. There were big stacks of games, old and new - ironically many of their titles are imported from a distributor in Birmingham UK - and a wide rack of CD titles, at prices from 70DM upwards. They even had the October AF cover CD, which was just out when I left the UK, although without the magazine that normally goes with it. They also stocked the September issue but were

glad of the AF July CD which I gave them, as that had not been available from their distributors, GTI.

Once again serious hardware and software was in stock and plentiful, from the 300DM 40MHz 68030 expansion for the A600 to the new 1400DM 68060 Cyberstorm 2. Picasso and Cybervision cards, flicker fixers, scan doublers and other graphic goodies were up for grabs; older Amigas were also supported with Octagon, GVP and Tandem Zorro cards, and Overdrive and RAM expansions for PCMCIA Amigas. I spotted Blizzard, Multiface and Tocatta cards, and even an ISDN board, made by BSC.

The Amiga makes a surprise appearance, in name at least, on the notorious Hamburg Reeperbahn, where a small sign proclaims 'Club Amiga' in ornate letters. On closer investigation however, this turned out to specialise in another kind of 'Amiga' entirely - prompting your not-so-intrepid reporter, in time honoured tradition, to make his excuses and leave...

Next month:

Next issue we hope to run a small feature investigating the Amiga games scene in Europe, particularly the high quality games being produced in Germany and Poland, which you will probably never have heard of...

ON THIS
MONTH'S CD

AFCD6:
IN THE MAG/Emulators

Emulators
Part 2



The Quantum Leap?

Simon Goodwin emulates the British operating system that introduced many Amiga developers to the 68000.

QDos is the operating system of the Sinclair Quantum Leap (see panel). It's a PD replacement for AmigaDos, actively supported by groups worldwide, particularly in the UK, Germany and USA. It's fast, because QDs and Amigas use the same types of processor; original QDs used Motorola's slowest model.

Amiga QDos is currently at version 3.23. First developed by Rainer Kowallik of Berlin, it's been much improved by Mark Swift of Manchester, with a few contributions from his humble scribe. It comes on three floppy disks. Two are in 880k Amiga format: a program disk and another containing complete source code. The third is a 720k disk in QDos format, packed with programs and examples.

The name comes from QL and DOS (strictly Drive Operating System, as original QDs had no disks) and is a pun on the Greek, Kudos – the pride that comes before a fall!

The Amiga package is extraordinarily complete. It includes a PD assembler, editor and linker, as well as a handler to read and write QDos disks. You can rebuild the entire system by clicking on icons in the 'make' directory on the source disk. It runs on all Amigas, from A500s with Workbench 1.3 to the latest A4000/060s. The emulator supports serial and parallel ports, graphics, sound and up to four floppy drives.

These days QDos also runs on both Atari and PC hardware, with add-on cards, although software-only emulators are in development. Amiga QDos is the only genuinely PD version, although there's a shareware QDos emulator for fast Apple Macs.

QDos software is abundant, with hundreds of PD disks in circulation; most of these run on Amigas, but some need to be patched with utilities on the Amiga QDos support disk so they can cope with 32-bit expanded memory and a design fault which stops Motorola's TAS instruction from working on Amiga hardware.

USING QDOS

QDos was the first multitasking operating system for home computers, and has a few rough edges. Almost everything is done from the keyboard, although Amiga QDos includes a mouse driver, used by some of the example programs. The most important control keys are Control F5, to pause display updates, Control C to swap input from one task to another, and Control Space to interrupt SuperBASIC, the built-in programming language.

LOAD and LRUN load SuperBASIC programs, with names usually ending _BAS, and EXEC starts tasks. Devices are named FLPI1, FLPI2 and so on, and the separator is an underscore rather than a dot, so you start Xchange with the command: EXEC FLPI1_XCHANGE. The format of file names is flexible, but they must be enclosed in quotes if they contain unusual characters.

The QDos equivalent of the startup sequence is a SuperBASIC BOOT file, launched with LRUN FLPI1_BOOT, or alternatively, by resetting the emulator (CTRL-ALT-SHIFT-TAB) with a disk in the drive, then pressing F1 or F2 to select Hi-Res MODE 4, or Lo-Res, MODE 8, respectively.

High resolution displays are converted using the Amiga's blitter. You can accelerate systems with chip RAM only by reducing the blitter priority, at a cost of some flicker as the red and green bitplanes are updated separately. SCR_PRIORITY 8,1 gives fastest updates, but SCR_PRIORITY 2,1 leaves more time for the processor on an unexpanded Amiga. With a 68030 or better you can use the processor instead of the blitter, giving better updates but slower emulation. This replacement screen driver, ACE, supports low resolution displays in eight colours, otherwise emulated with four colour stipple patterns in blitter mode.

QDos supports multiple windows, with scaled and clipped graphics, but it's up to applications to update them when they overlap; pressing F10 or F4 usually works. You can't swap keyboard control to a task, unless it displays a cursor. Older programs may not be designed to multitask – start them with the EXEC, W command (W for Wait).

For lots more details of SuperBASIC commands and functions, check out the documentation on the Amiga QDos system disk, join the user group Quanta, search the web, or seek out tutorial files from QL PD libraries.

QDOS SOFTWARE

Many Amiga developers were introduced to the 68000 by the QL, including HiSoft, RealTime Games and the Bitmap Brothers. Metacomco's

Continued overleaf →



QDos is a PD replacement for AmigaDos which comes on three floppy disks.



In an age when text based machines were common, the QL's graphics look very good.

infamous Amiga ED and BCPL compilers were early QL products. HiSoft BASIC, Devpac 1 and 2 started life on QDOS. Much recent commercial software uses QPTR, a WIMP package from Tony Tebby – beware, as this is not included with the emulator, and not all versions run on Amiga QDOS. Tebby has written a QDOS update, SMS/Q, for Atari, PC and expanded QL hardware.

Most older programs work directly from the SuperBASIC command line, with no need for extensions, but some expect commands from *SuperToolkit 2*, an extension package originally supplied as a 16K ROM. This works from RAM on the Amiga. Hundreds of alternative commands are available, including the PD Toolkit on the Amiga QDOS support disk, and *DIY Toolkit* routines on our CD.

Toolkits like these are very important on QDOS because they extend SuperBASIC in a concise and powerful way. They're a similar to resident commands on the Amiga, but faster and more flexible. Many programs are first written in SuperBASIC, using toolkit extensions where necessary, and then compiled into stand-alone tasks which link to toolkits as they load.

CD GOODIES

Some of the best QDOS PD is on our cover CD. To use it, copy the contents of each directory onto a double density disk in QDOS format. You'll need the QDOS handler loaded, either by booting from the Amiga QDOS startup disk or by copying the handler to your system partition. On Workbench 2 or 3, just copy Frank Swift's QLFileSystem from the boot disk into L: and icons for each drive into DEVS:DOSDRIVERS.

SINCLAIR'S QUANTUM LEAP

Sinclair's Quantum Leap, or QL, was launched at £400 in January 1984, and delivered in June. It was the first home computer based on a 68000-series processor – the 7.5 MHz 68008 – and shipped with 128K RAM and 48K ROM, expandable to 640K and 64K respectively.

The Quantum Leap has two serial ports, networking, and two 100k tape cartridge 'microdrives'. Display resolution is 512x256 in four colours, or 256x256 in eight colours.

QLs were manufactured by Thorn EMI in the UK and Samsung in Korea, for export to Germany and the USA. The ROM contains a block-structured extensible language, SuperBASIC, designed by Jan Jones, and Tony Tebby's QDOS, a multi-tasking, device independent operating system modelled on Unix. London's Psion contributed a business software suite which was very advanced for the time, though slow running from microdrive tapes.

Microdrives were a compromise to keep the price down – in 1984 floppy

drives were prohibitively expensive, although today they're the choice of almost all QDOS users.

Microdrive tape loops had a 16k per second transfer rate but slow access times, averaging 3.5 seconds. To mitigate this QDOS uses all spare memory for 'slave blocks' – 512 byte buffers for recently read data. This works much better than the Amiga 'addbuffers' arrangement. Current expanded QLs have 720k, 1.44 or 3.2M floppy drives, faster processors – usually 68000/16 or 68020/24 – and multi-megabyte RAM expansion.

A range of 'Thor' SuperQLs with 68000 and 68020 processors was manufactured in the UK and Denmark in the late 1980s. These came with Psion Xchange – an improved, integrated version of the business software, first bundled with 'One Per Desk' workstations, QL derivatives marketed by ICL and BT.

Hardware QDOS emulators run on Atari ST, TT – and even IBM clones, via a £300 ISA card with a 68EC040 processor and 4Mb of RAM!

EMULATORS FOR QDOS

QDOS is popular with programmers and has more than its fair share of emulators. Many are out-classed by Amiga-specific programs, but some deserve attention as they mimic machines which cannot otherwise be emulated on an Amiga.

XTRICATOR

Xtricator is a Sinclair ZX81 emulator from the Netherlands. It runs well on Amiga QDOS and you can get it working at a sensible speed on most Amiga systems from A1200 upwards.

It runs just right on A4000/030s if you reduce the main Xtricator task priority to half that of the XTR.IO screen-update task, and gobble up some CPU time by boosting the QDOS screen:

```
BLIT, OFF : ACE, ON :
ACE, PRIORITY 8,1
```

Sinclair's ZX81 was the first home computer mass-marketed at a price below £100, and sold millions. It was very slow, but it's fondly regarded by many for whom it was the first step into home computing. Xtricator is the only 128K emulator that runs on the Amiga, and it requires Amiga QDOS – but that's no problem as both work well and are freely distributable.

Xtricator has enormous advantages over the real thing, like fast disk loading, an extended BASIC toolkit is built in, and it even runs Hi-Res games which re-programmed the ZX81 display to get around the limitations of simple character graphics. A substantial library of ZX81 programs is available in Xtricator format from the author Carlo Delhez, on registration of the shareware version.

SPECTATOR

Spectator is a Sinclair Spectrum emulator from the same stable.



Xtricator: Sinclair ZX81 emulator.

It's slower than Amiga ZX emulators, but more compatible. It supports three file formats – the compressed Z80 format, used by many Spectrum emulators, its own microdrive image format, and SPT tape format. Files are readily available on CD and the net, particularly as Z80 snapshots.

The main weakness of Spectator is its slowness, particularly in 128K mode, and lack of emulation of Spectrum 128 sound, which does not translate well to QDOS BEEPS. If that's a priority you're better off with the Amiga-specific ZXAM, which emulates Spectrum 128 sound well, but doesn't support more than 48K of RAM yet.

The shareware version of Spectator on the AFCD runs about 2.5 times the speed of the real thing on a 68060 Amiga, but substantially slower on an A4000/030. You can boost it by switching from the eight colour display to a four colour blitter version, with these commands:

```
ACE, OFF : BLIT, ON
On a 68060, in 48K mode, the problem is an excess of speed, rather than a dearth. I dragged it
```



Spectator: Sinclair Spectrum emulator.

down to 100 per cent Spectrum speed with these commands:

```
MODE 8 : ACE, ON : BLIT, OFF :
ACE, PRIORITY 16,1
```

Bizarrely, Spectator 1.52 thinks it's running on a machine with a German keypad, transposing the letters Z and Y. Select a German map for Amiga QDOS with the command KEYDT. Use KEYUK to swap back when you're in SuperBASIC.

ZM/HT

ZM/HT is currently the only emulator that TRANSLATES programs as it runs. This means that it's potentially the fastest Z80 emulator. Given plenty of disk space you can save compiled code along with the original, for a quick start when you reload.

ZM/HT avoids the overhead of decoding. At first it's slow because it must generate new 68000 routines as well as execute them, but later it can run pure 68000 code.

ZM/HT sounds simple, but it has to be fiendishly clever to cope with self-modifying programs, which may poke their own code at any time. It keeps a table with an



ZM/HT: Z80 emulator.

entry for every byte of emulated memory, marking routines for recompilation when they are modified. It's complicated, but if it can be done in QDOS, an Amiga version is possibly possible.

This is probably the only way we'll see fast PC emulation on current Amigas. In practice it's a technique more suited to eight bit than 16-bit emulation, because it demands several bytes of emulation memory for every byte emulated. The compiled code is much longer than the Z80 original but the speed is so impressive that compiling emulators are surely the way of the future.

THE REST

There are many more emulators for QDOS, both commercial and freely distributable. CPUMulator, Solution, Success and Conqueror emulate business bogey-systems CPM and MSDOS. Other Spectrum emulators include William James' Spectator 93, ZM/1, ZM/2 and ZM/3 come from Ergon, authors of ZM/HT; they are feature-packed but relatively slow Z80 interpreters, rather than compilers.

By default QLFileSystem uses 'mfmd.device', part of CrossDos, to read disk tracks and sectors. Workbench 1.3 Amiga users can use the PD 'messydisk.device' instead. Copy it from DEVS: on the boot disk to your own system, and add this command to your startup-sequence:

MOUNT QL:0: FROM DEVS:MOUNTLIST.QL

Substitute PC for QL to gain access to 720k PC and Atari disks. The only snag is that Messydisk, like the emulator itself, cannot read High Density 1.44Mb media. This hardly matters as QDOS PD and commercial releases invariably come in 720k double-density format, which any Amiga can read.

Once you've re-booted with the handler in place you should see an extra icon on your workbench, marked QL:0:?????. This is the equivalent of the CrossDos icon PC0:???? and shows the QDOS disk name as soon as one is inserted.

Click on the icon and format a fresh disk from your workbench, just like a floppy in Amiga or PC format; alternatively, use *Opus* or the Shell. The physical format has nine sectors per track, or 18 for high density, like PC and ST disks, so you can use FORMAT QUICK to put QDOS directories onto disks already in those formats.

Once formatted you can use any Amiga program (e.g. *DirWork*, *SID*, *Opus*, *Shell* or *Workbench*) to copy files from the CD to the QDOS floppy. QDOS file names can have up to 36 characters – four more than Amiga names – so very long names may be truncated when you copy from QL to Amiga media. Sub-directories are supported from the Amiga side, but not within Amiga QDOS; copy files out to the root before trying to use them in the emulator.

QDOS tasks have extra information in their 'comment' field. Make sure that this is copied as well as the file bytes, or QDOS will not know how much space to allocate for the task's data. If this happens to you, the task will be rejected with a 'bad parameter' report when you try to EXEC it.

PROS AND CONS

If you're a programmer or former QL owner, Amiga QDOS is fun and fascinating, but it's a bit much for keyboard-shy lammers. Hackers welcome it as a stable platform for Amiga

QDOS CONTACTS:

PD SUPPLIERS:

SJPD, 36 Eldwick Street, Burnley, Lancashire BB10 3DZ = 01282 451854.
Qubbesoft PD, Brunwin Road, Rayne, Braintree, Essex CM7 5BU = 01376 347852.
Both stock Amiga QDOS 3.23 (3 disks, £3.50) and hundreds of disks of PD.

International QL User Group:

Quanta, 213 Manor Road, Benfleet, Essex S57 4JD, UK.

NET NEWSGROUPS:

General Sinclair: comp.sys.sinclair
Qdos discussion: maus.sys.ql.int
C68 compiler: maus.sys.ql.c68.int

WEB PAGES:

<http://www.imagine.fr/~godefroy/>
<http://www.di-rem.co.uk/ql/homepage.htm>
<http://ourworld.compuserve.com/homepages/peta/>

QDOS FTP:

<ftp.nvg.unit.no/pub/sinclair/ql/>
<ftp.garbo.uwasa.fi/ql/>

BULLETIN BOARDS:

TF Services: 01344 890987
Nene Valley: 01933 460538

hardware-banging. Examples on the support disk show how easy it is to use the Amiga blitter, stereo sound, palette and even SCSI devices when there's no system getting in the way.

QDOS runs sweetly on floppy-only Amigas, but currently only supports hard drives via rare PC bridgeboards. Rather than write drivers for every interface under the sun the developers aim to get the next version running alongside AmigaDOS, using Amiga drivers. This will be a big job, but a massive step forward.

NEXT MONTH

My next column tackles a topic dear to the heart of many Amiga enthusiasts: emulators for Commodore 64 software. Many AF readers cut their computing teeth on the C64, and emulators abound. Join me next month for the AF guide to C64 emulation, with plenty of reviews, contacts and advice.

QDOS CLASSICS

There are far too many PD QDOS programs to discuss here but here are a few highlights from the AF cover CD.

PSION XCHANGE

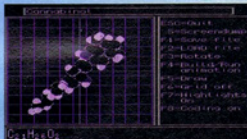
Psion's Xchange suite was one of the great strengths of the QL. It comes on the support disk and works nicely under Amiga QDOS. It's well-organised well-integrated. The Archive database is powerful but sluggish. Archive programs resemble Psion's later OPL (Organiser Programming Language). Easel is a quick way to boil up convincing bar and pie charts and Abacus is a friendly spreadsheet with powerful functions.

QUILL

Quill is a WYSIWYG word-processor, but only supports monospaced text. It uses its own



Quill: Final Writer 5 compatible word processor.



Molecular Graphics: Ideal for helping you to understand the 3D structure of chemicals

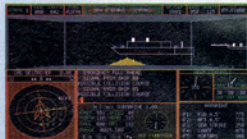
proprietary .DOC format, which you can convert to RTF (Rich Text) which FWS can read, using Amint's UTIL/CONV/DOC2RTF tool or QL code on the support disk: DOC2RTF.BAS and DOC2RTF.TASK, the much faster multi-tasking compiled version. QL programs and plain text files are easily readable from the Amiga as the line-ends correspond.

C68

C68 is a freely-distributable QDOS C compiler and development system. Full source code is available plus lots of useful utilities. C68 generates code for all 68000-series processors, and has been used to compile many PD and commercial QDOS releases. If you're interested in C, but can't afford a commercial package, C68 lets you try the full language at no cost.

MOLECULAR GRAPHICS

Mark Knight's Molecular Graphics is a 3D animation package with a database of over a



FTC: Simulate crew activity, damage control, docking and re-supply as well as combat.

hundred interesting molecules which you can tumble in colour around the screen. A simple program, well-implemented and fun to use. It's freely distributable, and surprisingly nothing like it is available on the Amiga. But it runs fine with Amiga QDOS, so who cares?

FLEET TACTICAL COMMAND

If *Elite* was the game that made the BBC Micro, *Fleet Tactical Command* is the QDOS equivalent. The graphics are simple 3D wire-frames, but they belie the depth and complexity of the game. FTC has been described as 'a real-time simulator where you play the entire navy', in an ocean a million square kilometres in size.

Vessels include tankers, submarines and supply ships and you steer, fire weapons and issue detailed guidance from the keyboard.

A demo version of FTC, limited to 90 minutes playing time, is on the AF Cover CD. Full versions run on QDOS and Msdos-compatibles.

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SCREEN PLAY

Previews

What games are in the pipeline? When are they coming out? How much will they cost? All your gaming questions are answered here...



Andy Smith

Reader Games are back with us this month you'll all be pleased to know. And with Epic Marketing now taking a serious interest in all the submissions, now's the time for you to get those games in. You never know, it could be just the

beginning of a beautiful life in hexadecimal!

For the rest of us who wouldn't know an op code from an alien, we'll just have to put up with the games other people create for us. And despite the fact that there aren't bucket loads of 'em around these days, there's still the odd little nugget popping up to remind us that not the entire world has forgotten about the Amiga.

One thing that hasn't changed and has been something we've had to live with ever since companies started producing games is the slippage. We keep getting told, hand on heart apparently, that a game's going to be with us 'in two, or three weeks tops' then of course it doesn't arrive for another six months. Ho hum. But anyway, that's why some of the games previewed last month haven't been reviewed yet. We will, rest assured, just as soon as they come in. On with this month's dazzling display...

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.

All Amigas ■
BPM Promotions
■ 01232 626694



Get the questions right and score goals. Get the idea?

The Reality Software Construction Kit is nothing if it's not versatile, and BPM Promotions are nothing if they're not prolific. The latest offering to tempt your wallet buds as it were is a cheeky little number called *Soccer Sensible*.

Now then, now then, this here game is a football quiz game. Oh yes. The preview we've seen of the game is still very early but the simple gameplay seems to involve answering



questions about football. All kinds of questions, ranging from 'Who did Howard Wilkinson manage before Leeds?' to 'Which club did Lee Sharpe start his career with?' (answers on postcards to the usual address please, but don't phone – it's just for fun). Get the question right and you're treated to a little cameo of a footballer scoring a penalty. Get the question wrong or run out of time and you're treated to a little cameo of a

footballer missing, or having a penalty saved.

The final version claims to include bonus rounds and mini sub games as well as free-kicks, corners and loads of other stuff. *Soccer Sensible* is intriguing, we can't wait to get it in for a full review – not only because we're all keen to demonstrate our footballing knowledge, but because we can't wait to see how the other features are going to work in the game.

BLOBZ

Apex Systems ■
All Amigas
■ 01709 890552

Those *Lemmings* clones keep coming! Actually, *Blobz* is not strictly a *Lemmings* clone, though it does owe a lot of its ideas to that now-ageing classic.

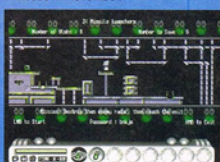


You've got a set number of bouncy green things you've got to guide to the exit on each level. You can make them jump over gaps, shoot holes in walls, change direction and a whole load of other things as you attempt

to guide them around the obstacles.

You get the picture, right? Although you'll have already gathered that this is a *Lemmings* clone, there seems to be enough variety to make this interesting. We're certainly interested and looking forward to release in November.

LEFT: Those green things flying through the air are your blobs.
RIGHT: A picture of the whole level. So you know where you're going.



WORMS: THE DIRECTORS CUT

All Amigas ■ Team 17
■ 01924 267776



A rather exciting picture of the letters W, O and – at a guess – what's about to be the letter R. Yesterday.



No, that caption above is wrong. The letters are definitely just W, O and I. Which means nothing.



You'll be able to use a whole bunch of new weapons. From your arsenal and everything.

In an Amiga Format exclusive, sorry, EXCLUSIVE! We talked to the Producer of Worms: The Director's Cut, Paul Kilburn (well, through Steve McGill).

AF: You've got some 14 new weapons making an appearance in the game, what are they? And are they going to be there in conjunction with the old weapons?

PK: The old weapons will be all be there but we're adding things like: Grenade Launcher – Fired fast at set power, when it hits something it explodes like a cluster bomb. And there are special weapons like the Super Sheep, which is a steerable homing missile.

AF: The level editor for Workbench: what exactly is it going to offer? Is it different from the Worms built in level editor?

PK: You mean Wormprefers for Workbench. This will allow you to edit stuff such as gravity, sky strength, wind direction and so on.

AF: DIY Landscape: Completely separate from the level editor, how easy is it to use? PK: This feature will allow you to edit

Left: The enemy worms cop it from an unusual air-strike. You won't get these on cavern levels.



graphical textures (forest, arctic and so on) which you will then be able to assign a name, e.g Amiga Format World, then when you type: Amiga Format.world a random level using your textures will be produced.

AF: Cavern levels: What do you reckon putting a roof on the background will do for the gameplay?

PK: With the new batrope, swinging Tarzan style (letting go of the rope and then re-firing the rope before you hit the ground will mean you can traverse entire levels. In theory.

Airstrikes will be rendered useless. You won't be able to fire homing missiles straight up into the air. Believe me, it adds to the gameplay.

AF: Would it be fair to say that the AGA version will look better than the PC version?

PK: Yes. Especially the scrolling which is 9 layer parallax. And the fact that you can have 2 layer levels where worms can walk in front of background scenery, making it possible to say, walk into houses and up stairs that are drawn as background.

AF: What else is there to shout about?

PK: 24 bit fades and explosions for a start. Basically, the whole game's going to be more user friendly. There will be none of this 'get a text editor and do this' nonsense. Everything will be accessed through the game or through the Worms prefs editor. Such as editing sound samples and including them in the game. So there you go folks, straight from the horses' mouth. More info and pics as and when. OK?

LEFT: Killer cows running around the screen. A feature first popularised by Acid Software.

BELOW: But Acid's cows weren't killers, they merely towed caravans behind them in a racing game.



The football minority from the makers of *Amiga Format*

Passing the ball is easy. But how long can you keep it in the back before... **THE STRIKER**

It's not just the strikers who are the focus of this issue. We also look at the midfielders and defenders who are the backbone of the team. And we also look at the managers who are the brains behind the operation.

Vicelli and Gollit's English Revolution

KEVIN KEEGAN'S JIGSAW PUZZLE

Kevin Keegan talks to the *Amiga* about his career and the challenges he has faced. We also look at the other players in the Liverpool team and how they fit into the jigsaw.

Keegan's Gordie conundrum

SERIOUS LEE

Lee Sharpe is in the spotlight. We look at his career and the challenges he has faced. We also look at the other players in the Liverpool team and how they fit into the jigsaw.

Lee Sharpe's new image

Plus EXCLUSIVE interviews with Steve Ball, Fernando Nelson, Paul McStay (AND MORE!)

New issue OUT NOW!

TOTAL FOOTBALL

CAPITAL PUNISHMENT

It normally takes Andy Smith a couple of lagers before he gets punchy. But not today...

You don't really want to be bothered with the plot and stuff do you? Surely not. Look, all right, it doesn't really make a blind bit of difference - it's a beat-em-up, that's all you need to know but if it gives you a better appreciation of the game then I'll go into it briefly.

Erm, a whole bunch of fighters were chosen by the gods or something to erm, do something. Then along comes this bad god and sort of kills them all and makes them immortal at the same time (look, I didn't come up with this), and keeps them to guard him. Or something. Anyway, like I said it doesn't really matter. All you need to know is that there are several fighters for you to choose from, and that you can sort of fight your way through a sort of storyline bit in one of the one-player modes - called Epic mode. Look, enough plot, trust me, anyway you're better off finding out about the background when you get the game.

Let's deal with the meat of the review and that's what the game looks, sounds and plays like. Looks first. Bear with me if I wander off on one graphic feature later, but well, you'll understand. ClickBOOM have done wonders with *Capital Punishment* in the graphics dept. Look for yourself at the screen shots and you'll agree the sprites are excellent, the backgrounds are excellent and generally everything looks terrific. But what you can't see is the smoothness of the animation or the little graphic tricks that have been included. All the characters move extremely fluidly, probably because there are loads of frames of animation - and they can turn round and everything. Ho ho. Couldn't resist that, *Rise of the Robots*. Ho ho. And even though there's loads of

animation it doesn't take half an hour for your character to move through a pre-set punching routine. All the moves are executed quickly, smoothly and believably.

The graphic trickery is a joy as well. Swinging and swaying shadows, dark rooms which only become lit when the lightning outside flashes and eerie cut-scenes all go together to make this one of the most atmospheric beat-em-ups you could wish to see.

But now here's the wandering off bit. And actually it's the biggest problem I have with the game. Yeah, you guessed it, it's the semi-naked fighter Demona. For some reason, ClickBOOM have decided it would be great to have some girl fighter who fights with her breasts out. It's actually very dubious as to whether she's wearing any underwear at all actually. She's in this kind of red cloak thing with holes cut out of it for her boobs to stick out of. CHEAP SENSATIONALISM CLICKBOOM. Look, we know the majority of people buying your game are going to be late-teen boys, but really. This is crass in the extreme. It really is.

Continued overleaf →

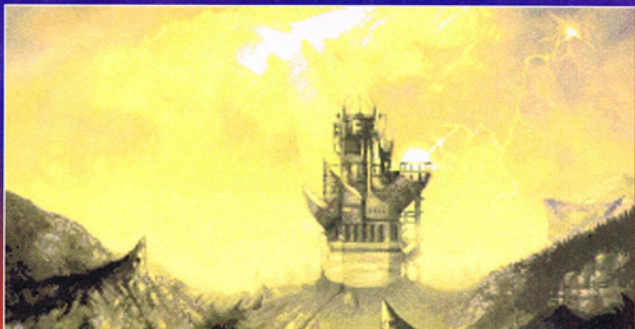


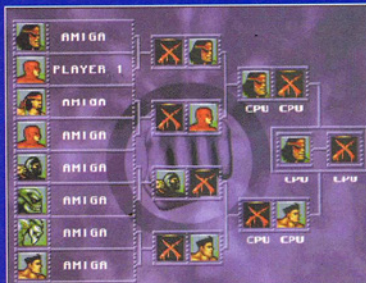
As you can see, it all looks rather gorgeous. What you can't see are the light tricks. They make it look even more gorgeous. Oh yeah, bloke kicks other bloke.



Would you credit it? A bloke kicks another bloke. Again. All the blood shed during a bout stays on the floor - things can get pretty gruesome as the fight goes on.

One of the cut-scene graphics. This one is Qwesul's castle where all the fighting takes place during Epic mode. Looks damn jolly lovely doesn't it?



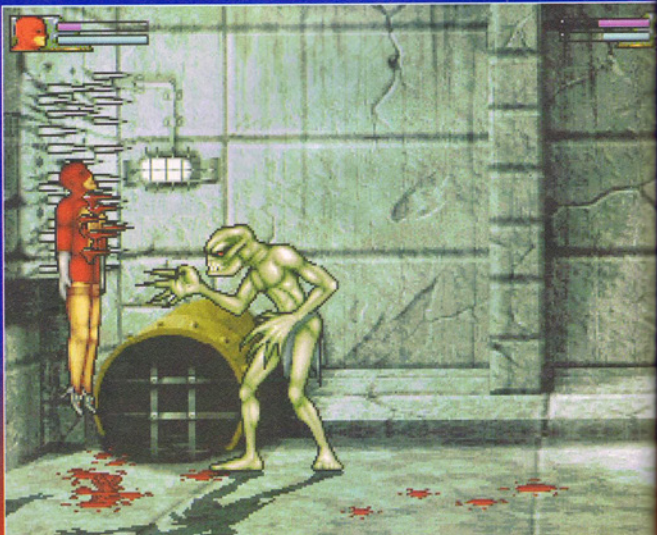


A picture of the tournament mode in action. You'll only find this in the finished game. Which is what we reviewed. Of course, I didn't get very far this time...



In the Factory and a smart uppercut sends the opponent flying. Now's the time to think about what you're going to hit him with when he comes down.

RIGHT: Demona meets a nasty alien type and ends up on the losing side. These traps don't come out until one fighter's health is getting very low.



A fine example of how well lighting has been used to give the game atmosphere. In this dark room it's often difficult to see what's going on. When the lightning strikes, the room lights up!



➔ I'll stop there because mentioning Demona makes a nice link to talking about the fighters in general. There are half a dozen to choose from and, as you might expect, they all have peculiar abilities, but with a payoff. Demona's got this big whip you see so she can hit people from a long way off, but she's not too powerful, whereas

Wakantanka is an extremely hard hitter but he's a bit slow. You know how these things work.

Sound now. And you'll be pleased to know that there's nothing here to annoy me. It's all great – from the intro music to the sound effects. They're all good, so let's get on to how the game plays.

Loads of different moves and stuff, you know all about that, but what'll need pointing out is the two bars beneath your strength meter (at the top of the screen). These are your fatigue levels. Basically you can't just run around like a headless chicken because you become fatigued and the more fatigued you are the more susceptible to attack you are. You'll

also find that taking a few unanswered hits causes you to be fatigued and as you stand there with your head bowed, gasping for breath, your opponent can sidle up to you and hit you with their best shot. Unless of course you're faking the fatigue and walloping them as they cockily move in for what they think's going to be the kill.

It's this kind of thing – being able to fake fatigue and such that sets *Capital Punishment* apart from the ordinary and elevates it to a *Format Gold*. Knock an opponent onto the deck and you can still charge into them while they're on the floor, and continue kicking and punching them. Great stuff.

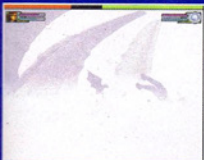
The only other really major point that *Capital Punishment* can call its own is the introduction of traps. Basically, when either fighter's strength is almost gone some traps appear from the scenery – usually spikes coming out of the wall or one of the gargoyles statues dropping their trident a few degrees from upright, resulting in a tasty meat hook.



Demonia whips an alien. Notice how I've cleverly managed to get screenshots of Demonia with none of her 'bits' showing. And how I haven't mentioned Cathy, Linda or Andrea yet!



"It was this big". The bandaged angler's 'one that got away' story was so impressive his friend fainted away. And almost disappeared completely off the screen.



The last battle in Epic mode and Qwesul morphs into a bat. A bat that can obviously pack one hell of a punch!



How on earth are you supposed to fight something you can't see? And when you can, it keeps changing into different things!



hard than too easy and the best way to get some practice is to put the game in two player mode and experiment with each fighter until you understand how to execute a few decent combinations of moves - you'll be well away.

ClickBOOM have certainly tried hard with this game and it shows. Not only are the graphics excellent but there's depth to the gameplay. Experience, skill and tactics all play a part which is just how things should be in games like this. I wouldn't go as far as to say it's one of the best Amiga games ever created but it's certainly the most polished and playable in this particular genre.

ClickBOOM have proved they can apply themselves and create games worthy of high praise (even if they have got cringe-worthy ideas of what needs to be included to appeal to a mainly adolescent male audience, but hey! This is just my opinion - they obviously held a different opinion during the game creation process, so that's fine really). So let's hope they continue and build on the excellent foundations they've put in place.

Capital Punishment is not necessarily a game that's going to appeal to everyone, but if you like your beat-em-ups then you're certainly going to be hard pressed to find one that plays anywhere near as good as this.

Caught in a trap. This hurts your energy, your fatigue and just about everything else. Generally unpleasant all round.

CAPITAL PUNISHMENT

Publisher
ClickBOOM

Price
£29.99

Versions
AGA Amigas

System requirements
1Mb

Release date
Friday 13th September

10 GRAPHICS
Superb. Some of the best you're likely to see in an Amiga game.

8 SOUND
The music and sound effects are of a very high standard. Not quite as impressive as the graphics, but only slightly.

9 ADDICTION
This one keeps you fighting. Once you work out a new set of moves it's difficult not to try 'em.

9 PLAYABILITY
All the essential ingredients for a decent beat-em-up in that you can learn to do better, effort is rewarded and skill plays a big part.

OVERALL VERDICT

Not only one of the best beat-em-ups for a long time, it's one of the best games we've seen for a while. You really want to be playing this when you know you're going to be fighting other human beings but even in one player mode you're going to have fun. Right, who wants a kicking?

90%

ay, September 26th 1996

Sport Sport Sport Sport Sport

SOCKER BOSS SIGNS CZECH

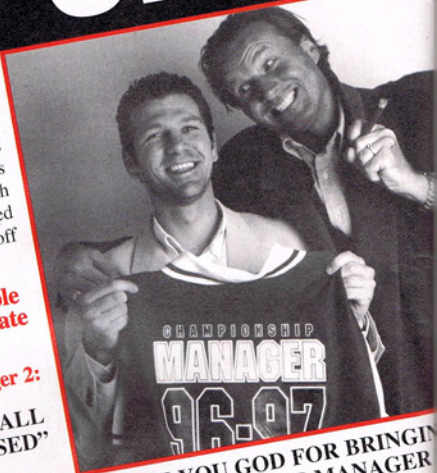
Suckam-on-Sea United's manager, Graham Failure, signs rising star Slavo Chillycobbles in a bid to revive the ailing club's fortunes. The shock news of the £1.72 Czech signing puts paid to the rumours that the club's recent decline is due to it's having naff-all money. It's now thought that Failure's preference for players with silly names is more likely to be the cause. When asked to comment on the new signing, Failure replied "Sod off I'm playing Championship Manager 96-97".

Championship Manager 96-97 is available for PC CD ROM, Amiga and as an update disk for Championship Manager 2.

What they said about Championship Manager 2:

"QUITE SIMPLY THE BEST FOOTBALL MANAGEMENT SIM EVER RELEASED"
PC ZONE 92%

"BUY IT!"
COMPUTER LIFE 5/5



"THANK YOU GOD FOR BRINGING ME CHAMPIONSHIP MANAGER"
PC REVIEW 9/10

"SIMPLY THE BEST"
PC HOME 92%



EIDOS
INTERACTIVE



**CHAMPIONSHIP
MANAGER
96-97**

YOU'RE IN CHARGE NOW

DNA

Andy Smith perked up when offered a blast of Deoxyribose Nucleic Acid – until he realised it was a simple wargame.

Imagine a mix between the first couple of *Valhalla* games and a slow version of *Laser Squad*. Now you've got a mental picture of what Applaud Software's first full Amiga game looks like.

Now imagine trying to play a game that's a mix between the first couple of *Valhalla* games and a slow version of *Laser Squad*. That's pretty much what playing *DNA*'s first full Amiga game is like.

It's a turn-based strategy game. Of sorts. You control two characters – a human and a cyborg – who have to fight their way through some 36 one-screen sectors which are populated with some mutant aliens. Your characters have a limited number of action points which can be spent doing 'things' during your turn. Things like walking, turning round, or punching the enemy. But beware, you've only very few action points so don't plan anything like: walk over here, punch this alien twice, move back down here, because the furthest you're likely to get is a short walk to stand in front of the first enemy alien and your points run out. Then it's their go.

But what's all this gene business you've read about? Well, genes are like power-ups. Kill a baddie, pick up the remaining genes, spend a couple of turns researching the effects of the gene and if you like what it does (provides you with shield in one instance) you can introduce it into your character. Sounds like a splendid idea. Except it's not been very well implemented.

For a start you seem to spend a lot of action points picking up genes you've already researched before and secondly the genes you do find don't go far enough to help you out. The difficulty curve is way too steep. Sure, this means you have to think about your moves when you're playing each sector – but actually what you spend your time doing is trying to have one of your characters run (run! Hobble slowly more like...) around the screen as a decoy while your more injured (both characters are usually in a bad way when you begin each sector) character tries to grab some energy-replenishing food and medi-kits.

This looks awful and has some major gameplay flaws. Hopefully *DNA 2* (if there is one) will be more fun to play and better value for money. This one isn't.



The small white arrow points at the cyborg thing chapie you're controlling. There's a dead baddie right in front.



Find a gene sample and pick it up and all day long you'll have a gene sample. Here's a sample nearly researched.



Once a gene's researched, if you like what it does you can introduce it to your characters' DNA. Simple as that.



At the end of each sector you get the chance to spend some points improving your various abilities.



Completing a sector enables you to choose which sector you want to go and attempt next. Like this one here.



Here I am standing at the side while all the action takes place in the middle. Only problem is, that's where the medi-kits are too. Oh well, time to go for it.

Out now from:
Applaud Software • 33 York Road
Church Gresley • Swadlingcote
Derby • DE11 9QG

Publisher
Applaud Software
(mail order only)

Price
£14.99

Versions
A1200

System requirements
All Amigas with 1.5Mb

Release date
Out now

5 **GRAPHICS**
Crude but effective. Although there are still things lying around that I don't have a clue about.

3 **SOUND**
Very little going on but that doesn't affect the gameplay one iota.

6 **ADDITION**
You know the war of attrition is going to wear you down eventually.

6 **PLAYABILITY**
Simple if a little clumsy. Not the most user-friendly. Easier when you know what does what.

OVERALL VERDICT

Not a game for anyone who likes action. Or fun games.

48%

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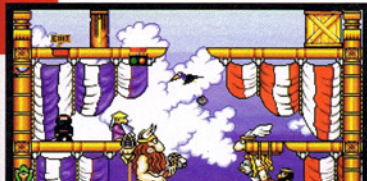


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(CU Amiga)



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Left and above:
Get the Mandarin
character across this
moving platform.

Right: Robin Hood
avoids the
dangerous
dragons by
standing on a
block of stone.



Below: The
viking's just taken
a vicious bop on
the nose.



Our Egyptian chum does a groovy sand-dance. The
Bangles did a song about this once. Or something.

Humans III, Evolution, Lost in Time

Put **Andy Smith** in charge of small characters needing help and guidance and things are bound to fall apart...

Guide a bunch of small chaps (up to four) towards the exit on each level. And then do the same again on the next level. And so on and so forth. Our Cathy can't have ordinary cups of tea or coffee. She has to have special Rooibosch tea bags because she's allergic to ordinary tea and coffee. Or something. See how the rest of us take the little things for granted? Like good, cohesive gameplay.

Of course, each level is difficult and requires you to coordinate the actions of all the characters to get at least one of them to the exit. Coordinating their actions involves things like standing one on top of the

other to reach platforms the characters can't otherwise reach. Or getting one of the characters to pick up a length of rope to allow the others to climb up to his level.

Freedom of Choice

Ben just doesn't drink tea or coffee. He could if he wanted to but just doesn't ever seem to want a cup when someone asks him. He's got the choice but just says no. You haven't got many choices when you're controlling your characters, but some are able to do things that others can't – the ninja for example can do a small flying drop-kick whereas the viking can't. But none of the characters do anything until you tell them to do it. They just stand there otherwise.

Why don't I like this game very much? I normally really like puzzle games, so what's wrong with this one. For a start it's over fiddly. You have to be almost pixel perfect at times and there's nothing more annoying than having spent 10 minutes chopping and changing between characters while you manoeuvre them around the

landscape, getting them right near the exit and then one of your chaps falls off a platform because you stood him too close to the edge. Grrr.

And the puzzles are too awkward. I'm not saying they're too tough, but they're not inventive – they just take an awful lot of tedious character manipulation to solve. And that makes the game tedious to play. Especially when you're up against the clock. The gameplay experience is not one of 'hmm, I have a cunning idea, let's try this...' it's much more of a 'damn, now I've got to jump them all off the platform and get the bloke with the rope to pull them all up again. And again. And again.

Sorry Gametek, this isn't much fun to play. It's certainly professional but that doesn't make up for the lack of excitement. ☹



Choose your team BEFORE you know what hazards await you on the next level. Grrr!

HUMANS III

Publisher
Gametek

Price
£19.99

Versions
A1200

System requirements
A1200

Release date
Out Now

7
10

GRAPHICS

All very jolly. Not especially jaw-dropping, but varied and pretty. And functional.

5
10

SOUND

Average tunes, average sound effects. Nothing remarkable here.

3
10

ADDITION

Small mistakes are rewarded with long, complex, repeats of the previous moves.

2
10

PLAYABILITY

Clumsy, awkward, fiddly, interface doesn't make this a comfortable game.

OVERALL VERDICT

Puzzles are tedious rather than challenging. The final package is not very mouth-watering.

60%

They're not available commercially. Yet. But maybe the good ones will be. Soon. They are, of course, the...

Reader Games

Regular readers will be well aware of the rising standards in the home-grown software we've featured in the Reader Games section over the last few months and this has not escaped the attention of the commercially minded software publishers.

Reader Games is now brought to you in association with Epic Marketing.

This means two things: every submission featured on these pages receives an Epic CD (or a voucher - we haven't worked out the details at the time of going to press) and the winner will receive £50 from *Amiga Format* and £50 worth of CDs from Epic (again, details haven't been worked out yet). But there's an even bigger implication to be considered - Epic are going to take a long, hard, look at the best submissions with a view to publishing them in the future.

£50 winner



The game could be improved if the pointer didn't have to travel all over the screen so much.



GAME: P*Y*R*A*M*I'D
AUTHOR: BARRY WRIGHT
LANGUAGE: AMOS
PROFESSIONAL

Anyone who uses a computer for any significant amount of time must have at least one card patience game sitting around that they can just spend the odd ten minutes here and there playing. And, if you're using an Amiga through the day you could do yourself a big favour by tracking down a copy of Barry Wright's P*Y*R*A*M*I'D.

The game's the old 'pair up' cards that make up thirteen - 8-5, 9-4 and so on - and remove them from the pyramid, the object being to remove all the cards from the pyramid.

This game's about as competent as you can get really, there's nothing wrong with it at all. But it could be improved. Only slightly, but improved nonetheless.

The mouse pointer (a small hand) moves around the screen a tad slowly for my liking and there's far too much actually moving the mouse

LEFT: Only six cards to clear and then you've won. But what's the betting you'll get stuck?

around the mat required to get the pointer from one card to the next.

Another improvement could be made by simply getting rid of the need to click on first one card, then its partner and then the discard pile. If you could just click on the first card, then double-click on its partner and then watch both cards jump onto the discard pile, life would be sweet.

VERDICT: POLISHED AND WELL PRESENTED, THIS PATIENCE GAME IS GREAT AS IT CURRENTLY STANDS AND WOULD ONLY NEED A COUPLE OF MINOR TWEAKS TO MAKE IT EVEN BETTER. ALTHOUGH IT'S ONLY A GAME OF PATIENCE IT'S ONE OF THE BEST INCARNATIONS WE'VE HAD IN THE OFFICE AND WE HAVE NOTHING BUT PRAISE FOR ITS AUTHOR. NICK SAYS 'CAN HE DO A CRIBBAGE GAME PLEASE?'. THIS MONTH'S £50 PRIZE MIGHT JUST BE THE INCENTIVE BARRY NEEDS TO ANSWER NICK'S PRAYERS.

GAME: CRYSTAL KINGDOMS
AUTHOR: LEE WILKIE AND JOHN GRIMSEY
LANGUAGE: BLITZ BASIC 2

This one will take you back. It's a platform game in which you're controlling a character (who looks a little like Rick Dangerous) who has to collect keys and diamonds.

The keys are most important here because progress through the levels is hindered by blocks that only disappear when you run into them when you've got keys about your person. I'll come back to this because it's important. Diamonds are collected for points.

The levels are populated by a whole range of small animals. These need to be avoided because contact with any of them results in the loss of a life. Look, you get the picture, this is an unoriginal platform game in the old tradition. It's also one of the best looking reader games we've seen and has been expertly put together. Lee states that he's been working on

the game, on and off, since 1993 and the polish and attention to detail is obvious. It's just so frustrating to play.

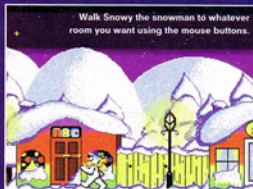
Back to the keys. Suppose you've got one key, there's a passage ahead that you need to go through and the way's blocked by two key blocks, one on top of the other. You can bet your bottom dollar that you're going to touch the top block. Result? You can't get any further. GRRRRRR!

Sorry Lee, but this really winds me up. I don't mind so much the fact that you need pixel-perfect jumping and accurate timing to jump over the bug and under the flying fireball at the same time, but this kind of thing is just damned annoying. Sure, maybe I should just be trying harder to get it right. Sorry, that's a cop-out.



It's vital to collect the keys if you want to progress through the levels. The diamonds are points.

VERDICT: CRYSTAL KINGDOMS IS A PROFESSIONAL QUALITY PRODUCT. THE GAMEPLAY HARKS BACK TO THE EARLY '80s AND THAT'S ULTIMATELY IT'S DOWNFALL. THE PLAYER IS PUNISHED FOR THE SLIGHTEST ERROR AND THAT HAS YOU PULLING YOUR HAIR OUT RATHER THAN ENJOYING BEING ABLE TO PROGRESS.



Walk Snowy the snowman to whatever room you want using the mouse buttons.

GAME: SNOWY
AUTHOR: JOHN KNIGHT
LANGUAGE: AMIGA E

It's not often we get Reader Games submitted that fall into the Edutainment (bleuch!) bracket, but here's one: Snowy. Snowy's a snowman I'm sure you'll not be surprised to hear.

Snowy's not actually finished because it's author is currently having to endure a Software Engineering degree course (endure? Yeah, right, in the pub I'll bet...), but that doesn't really matter because Snowy consists of a few sub-games bolted together and accessed from a menu screen. Simply walk Snowy to a door, press fire and enter the sub-game.

The first of the pair of sub-games is pairs. You have a load of cards face down, you turn one over and then pick another. If the card matches, hurrah! If not, you turn 'em both face down again and the computer has a go. Once all the pairs have been matched it's game over. This is the trickier of the two as the cards are letters (one upper case, one lower case) with a small picture for each letter and the computer's turn is very quick so you don't get a chance to see what it is unless you're very sharp.

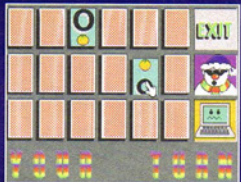
The second game is a simple snakes and ladder variant where you progress by rolling a



Andy Smith gets an adding up question right shock! He was never the best in his maths class the poor lad...

dice and then adding your dice score to the number of the square you're already on. You then move your counter to the new figure and the computer has a go. And that's your lot. Currently at least.

VERDICT: ALTHOUGH THERE ARE ONLY TWO SUB-GAMES THEY ARE BOTH WELL PUT TOGETHER. THE GAME OF PAIRS PROBABLY NEEDS MORE WORK AS IT'S A BIT QUICK, BUT SNAKES AND LADDERS IS FINE. A COUPLE MORE SUB-GAMES ARE NEEDED FOR THIS TO BE CONSIDERED READY FOR COMMERCIAL RELEASE.



Here you're playing the game of pairs - and the computer opponent doesn't like it one bit.

GAME: SKIDZ
AUTHOR: CHRISTOPHER KEY
LANGUAGE: AMOS
PROFESSIONAL

It's Destruction Derby - but on the Amiga! This two-player only game sees you and a friend in a small square arena (viewed from above) where you both try and smash your little cars into each other. Simple as that.

Every collision causes damage, but if you instigate the collision you come off better than your opponent, and things can really go your way if you manage to smack him into the walls as well. Walls really hurt. Which is why you should avoid them at all costs. This is great stuff and 13 year old Christopher's first attempt to produce a game other than for his own amusement.

There are things wrong with it that could really improve on what's fundamentally a solid base: the graphics are drab but that's not terribly important, the control is awkward to say the least - it's joystick or nothing and a keyboard option is sorely missed.

Your car doesn't drive well and could possibly do with a re-centering option whereby you turn to the left for as long as you're holding the joystick to the left and the wheels straighten up when you let go of the joystick, rather than the car continually going left once you've moved the joystick left, or right if you

move it right which is how things are at the moment. I reckon this would make it a lot more accessible and easier to pick up and play. The cars also incur and receive damage too quickly - just a couple of smacks into the wall and your car's trashed. Less severe amounts of damage would make the game more exciting.

There are player definable options which include the speed of the cars and the amount of skid and this is a very good thing. More polish and the essential keyboard option would make an even better game.



The graphics could do with a bit more work on them but that doesn't affect the basically good gameplay.



The blue car ruthlessly slams the yellow car into the wall, causing much hurt. It won't be long before this bout's over and done.

VERDICT: THE CARS DAMAGE TOO QUICKLY WHICH MEANS THE BOUTS ARE OVER FAR TOO FAST. THERE'S NO KEYBOARD OPTION AND THE CARS ARE DIFFICULT TO HANDLE AS THE CONTROLS ARE NOT INSTINCTIVE. OTHER THAN THAT, SKIDZ IS A GREAT LITTLE GAME. THERE'S DEFINITELY ROOM FOR IMPROVEMENT IN THE GRAPHICS THOUGH.

Continued overleaf →

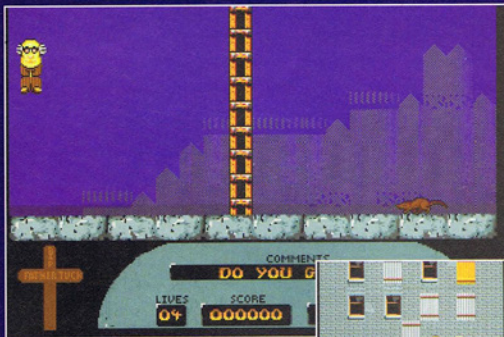
GAME: FATHER TUCK **AUTHORS: STEVEN MAWHINNEY AND DEIRDRAH MCGIVERN** **LANGUAGE: REALITY**

We had a look at the Reality Games Packs last month (AFB9, 66%) and here's a reader version of pretty much any of the *Charlie Chimp* games. Except it's starring Father Tuck and he's looking for his lost Bible.

I hope this is Steven and Deirdrah's first Reality game because it needs some improvement. A dictionary certainly wouldn't go amiss chaps.

But the important improvements come in the design dept. There are locations you enter that lose you a life immediately. Every time you enter them. As you wander into the new location there's a rat or a bird right on the other side of the screen and you don't know they're there until it's too late and you're dead. It takes several attempts to discover just where on the previous screen you should be standing before you make your jump before you manage to enter the location alive.

Other curious phenomena include being able to stand halfway up the screen in seemingly thin air. For no good reason. Father Tuck does very little that's unexpected, which is largely due to the limitations of the Reality Software Construction Kit, rather than lack of imagination on the part of the authors, but there's room for some more thought at the design stage.



ABOVE: Father Tuck in mid-air. Yesterday. I don't swallow the 'Y's supposed to be a secret platform' argument either.

RIGHT: Father Tuck has a bit of a chat with a small lad outside a house. Yesterday. With a crowbar nearby.

VERDICT: DEMONSTRATES THE LIMITATIONS OF THE REALITY SOFTWARE CONSTRUCTION KIT. NEEDS MORE THOUGHT FOR EACH SECTION OF THE GAME AND PLEASE GUYS, TAKE OUT THAT HUGE DOG! IT CAUSES MORE FRUSTRATION THAN ENJOYMENT.

GAME: CONFLICT **AUTHOR: LEO RUNDLE** **LANGUAGE: AMOS**



Split-screen two-player action as you and a chum run around trying to kill each other. On the Amiga.

The flavour of this game is like DeathMatch from Doom – but on the Amiga. That is, the idea is very simple – you and a mate are on a level and the object of the game is to find and shoot your mate whilst avoiding getting shot in return. Simple as that.

The action is viewed from above with your characters being little more than blobs with

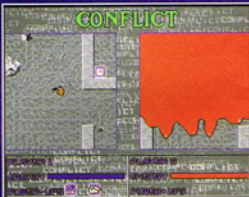
guns held in front of them. You both then run around chasing after each other while you shoot little 'laser blobs' at each other. The first person to be killed, erm, loses.

There are, however, a couple of twists that need to be mentioned. The main one being the addition of power-ups. Grab yourself a couple of shoes power-ups and you'll be moving twice as fast as you were before – very handy if there are only two shoe power-ups on the level and your opponent didn't get any...

Other power-ups include faster shots (you can only have one 'laser ball' in motion at any one time – shoot and you either have to hit your opponent or an obstacle before you can shoot again), more powerful shots and med-kits. Possibly the biggest extra twist though and one that, for me at least, kills off the game to a great extent is the time limit that's imposed on each level.

I can understand why Leo's put it in – it does increase the tension somewhat when you know you've got to get your killing over quickly, but I would have preferred to be able to choose whether I want to play a long, drawn-out battle or a quick blast-run-blast-run skirmish.

On the plus side, there's a level editor and plenty of pre-set levels to choose from. So there you go.



And it's all over for player two. The speech that accompanies this screen is excellent.

VERDICT: GREAT PRESENTATION, SIMPLE GAMEPLAY THAT CAN BE AS EXCITING AS YOU WANT IT TO BE – UNTIL THE TIME LIMIT RUNS OUT. IF THE PLAYER WERE ABLE TO CHOOSE WHETHER TO PLAY WITH A TIME LIMIT OR NOT I WOULD HAVE ENJOYED THIS MUCH MORE. EXTRA FEATURES LIKE BOUNCING SHOTS WOULD HAVE ADDED ANOTHER DIMENSION TO THE GAMEPLAY ALSO. MAYBE IN *CONFLICT 2*?

MORE OF THE SAME PLEASE!

This Reader Game's section is becoming so popular that we're looking to expand it. And there's something in it for you! Every game featured wins an Epic CD and the winning entry wins £50 from Amiga Format and another £50 worth of Epic CDs.

Now if that doesn't inspire you to get those submissions in then nothing will.

Just a note of caution though: don't bother sending in that PD game you coded three years ago just to try it on, we'll spot it and chuck it in the bin. After we've erased the disk for good measure.

And, once the game's been featured here in your favourite magazine we'll be passing them onto Epic Marketing who'll take a look at the really good ones

with a view to publishing them. There's nothing guaranteed, of course, but you never know – you might just get a phone call in a couple of months time. In which case, please make sure you put a contact number or address on your submission (which you'll need to do anyway, or we wouldn't know where to send the goodies now would we?).

APPLAUD SOFTWARE

33 York Road, Church Gresley, Swadlincote
Derbyshire DE11 9QG



DNA



DNA "A fine blend of RPG and classic strategy!"

Please send me _____ copies of 'DNA' for £14.99 (inc P&P) for the Amiga

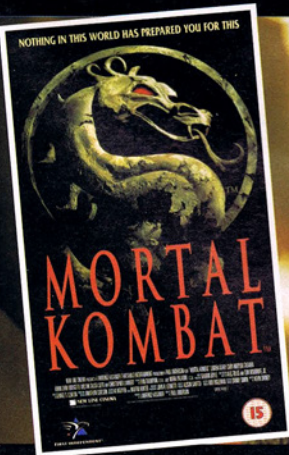
I enclose a cheque/PO/IMO for _____ (payable to 'Applaud Software')

Name _____ Address _____

Postcode _____

Please note: 'DNA' requires a minimum of 1.5Mb of memory to run.

LET KOMBAT BEGIN AGAIN!



*...the final battle
is for Life.*

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CRASH! BANG! WALLOP!

8
BACKPACKS
TO GIVE
AWAY!

WIN!WIN!WIN!WIN!



WIN!WIN!WIN!WIN!

Amiga games are fab. We all know that, but they are, at the end of the day, only computer games. You're never really there are you?

Well now you could be a lot more involved in the action with an Interactor backpack. Plug this groovy device into the sound sockets at the back of the Amiga and marvel as the pack strapped to your back shakes about in synch with the on-screen action. Feel those punches! Experience that head-on collision! Shudder as you take those rocket hits!

And that's not all folks, the Interactor also plugs into your stereo, so you can really get up and get down! And for lucky *Amiga Format* readers we've got not 6, not 7, but 8 backpacks to give away to our lucky readers.

And all you've got to do to win one of these tremendous (geddit?) prizes is:

- 1 Produce an Amiga game. A really, really good one.
- 2 No, not really. I mean you can if you want, but you don't need to, to enter the competition.
- 3 Send in a cassette tape of yourself singing one of Shakin' Steven's popular 80s hits. Like 'Green Door' or 'This Ole House'. Or another one if you fancy. Yes, you can send your entry in on disk if you like.

Send your Entries to: *Shaky's Back!* Amiga Format, Future Publishing, 29, Monmouth St, Bath BA1 2DL.

Rules: 1. The judge's decision is, and always has been, final. 2. No correspondence will be entered into. 3. Did I say that bit about the judge's decision yet? 4. No employees of Future Publishing or Aura can enter. Nor can Bristol City fans. 5. All right, Bristol City fans can enter if they really have to. 6. Closing date is December 1st, the eight best entries, in the judge's opinion, will win the prizes. 7. Still no rule 7 look.

competition

GameBusters

Tips and cheats so you can get more out of the games you've bought. Therefore enjoy them more. You'll then associate that feeling with AF and continue to buy it. Because it gives you what you want: tips and cheats...

PRIMAL RAGE



Learn just how to pull off a dramatic Scorpion Sting when you're fighting as Vertigo. Then again, learn how to counter it with an Inferno Flash when you're fighting as Diablo. Kewll!

In what's rapidly becoming a beat-em-up theme issue, here are all the combinations you'll need to master to become an expert at the rather satisfying dinosaur slug-fest that is *Primal Rage*.

KEY

The abbreviations used throughout this guide mean:

- A** joystick AWAY from opponent
T joystick TOWARDS opponent
U joystick UP
D joystick DOWN

ARMADON

- Gut Gouger **TTA** (at close range)
 Bed O' Nails **DDU** (hold fire button)
 Uppercut **DTTUT**
 Iron Maiden **AUT**
 Mega Charge **ADT**
 Spinning Death **ATD**
 Flying Spikes **AAU** (projectile)
 Eat Human **UTD**
 Gut Fling **DDDD** (fatality)
 Meditation **TDATT** (fatality)

BLIZZARD

- Air Throw **UD** (when jumping and at close range)
 Ice Geyser **DUU**
 Mega Punch (fake) **DUD**

- Mega Punch (long) **ATAT**
 Mega Punch (quick) **ATT**
 Mega Punch (short) **ATU**
 Punching bag **ADTU**
 Throw **TDAU**
 Freeze breath **AAT** (projectile)
 Eat human **AUTD**
 Brain bash **DDAUT** (fatality)
 To-Do-Moon **DDDDU** (fatality)

CHAOS

- Grab 'n' throw **TAA** (at close range)
 Battering Ram **TTT**
 Flying Butt-Slam **DTUDT**
 Ground shaker **UAADA**
 Power puke (fast) **UTT** (projectile)
 Power puke (slow) **UTA** (projectile)
 Fart of Fury **DTUA** (projectile)
 Eat human **TDAU**
 Cannonball **DTUD** (fatality)
 Golden shower **DATAT** (fatality)

DIABLO

- Hot foot **ADT**
 Inferno flash **UUU**
 Mega Lunge **DUU**
 Pulverizer **UTD**



Torch

- Fireball (fast) **UTT** (hold fire button)
 Fireball (slow) **DTT** (projectile)
 Eat human **DTA** (projectile)
 Incinerator **DDU**
DDDDU (fatality)
TTTTT (fatality)

SAURON

- Air throw **UD** (when jumping and at close range)
 Cranium crusher **DUU**
 Earthquake stomp **DDD**
 Leaping bone bash **DUD**
 Neck throw **TAA**
 Primal scream **DUA**
 Stun roar **ATT** (projectile)
 Eat human **DDU**
 Carnage **ATATA** (fatality)
 Flesh eating **DDAA** (fatality)

TALON

- Brain basher **UAU**
 Face ripper **DTD**
 Frantic fury **DTT** (hold fire button)
 Jugular bite **UU** (after a multi-hit combo)
 Pounce and flip **UTT**
 Run forward **AT** (then hold last direction)
 Run backward **TA** (then hold last direction)
 Slasher **DTU**
 Eat human **UTDA**
 Heart wrenching **TDAUD** (fatality)
 Shredding **TUAD** (fatality)

Ouch. See? SEE! Once you know the moves, don't tell your mates, just beat them. Every time.

The horned one shows the furry one who's boss in no uncertain terms.



Continued overleaf ➔

VERTIGO

Come slither	AAA
Scorpion sting	TTD
Teleport	DDD
Voodoo spell	UUU
Venom spit (fast)	TTT (projectile)
Venom spit (slow)	TTA (projectile)
Eat human	DTU
Petrify	TAATT (fatality)
Shrink 'n' eat	TAADU (fatality)

TOWER ASSAULT CD³²

Here's all you'll need to get through the game:

1. Planning your route: quite often, taking the long way round reaps rewards – extra lives and stashes of cash, ammo and keys can all be found by playing just one or two extra levels.
2. Make sure you're extremely well armed and armoured before going after the military or main towers as they're both tough cookies.
3. When meeting one of the big boss aliens, you usually have the choice of facing the boss or taking a longer route round it. Make sure you collect



Rushing around in *Tower Assault CD³²* is going to prove a whole lot easier now thanks to this great bunch of tips. They don't help everyone though. Linda's still cack-handed.

all the pickups before taking on the boss as there's a quirk in the game which means if you go out of the room after defeating the boss you can't go back in so you'll have to take the longer route.

4. Make sure you've got lots of keys before entering a corridor level because you won't have time to search for them once the clock's started ticking.

5. Plan your missions properly. For instance, if you have to destroy some things make sure the last one to be destroyed is the one nearest the exit. If you have to trigger something to start a destruct sequence (e.g. access a terminal) then go around the whole level beforehand and collect all the pickups (e.g. security zone 2).

6. If you have to blow up generators, don't waste ammo shooting them. Instead, walk into the top left corner of each one for a moment and they will blow up.

7. On the outdoor levels, the small aliens are harmless so don't waste ammo shooting them.

8. Search each level fully. If there are thin walls, blow 'em up to see what's behind 'em. Always search every room with an open door for pickups and look around for secret levels (try and find the portacool). When you come to a door, think carefully before opening it as you might use a key unnecessarily.

9. Invulnerability tokens do not protect you from radiation so be warned.

10. There's no point buying the 'in between' guns as on the earlier levels they're not needed and on the later levels they're not good enough. Save your money until you can buy a refraction laser.

11. Indoor and outdoor gun turrets are stupid. You can position yourself where you can get them and they can't get you.

12. Remember that in the civilian complex you do not need keys to open the doors!

Adam Shailer
Meopham

KGB: THE FIRST PART

After the travesty of mockery of a sham of a travesty that was Steve McGill's attempt to provide the complete solution to *Flight Of The Amazon Queen*, you will now behold the first part of a complete solution to KGB, kindly supplied by Daniel Platt of Liverpool. The next part will be found on these pages next month. GUARANTEED! No, really.

Chapter One

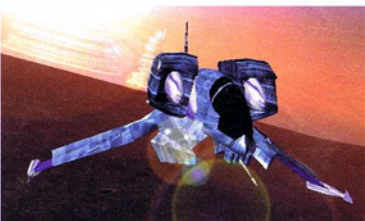
Exit room, enter upper left room (Vovlov's office), exit room, go to exit (lower right door), select Goltis's office, say your name to militia man, show him your ID, enter building, inspect desk, get matchbox and matches. Inspect phone, get bug, inspect drawer (locked), inspect radio, get batteries, exit room, ask militia man for the key to the drawer, enter room again, use key on drawer, get newspaper cutting and recorder, wait (Goltis's sister will come).

Question her: ask her some questions and then tell her she may go. Irina will give you a tape, use batteries on recorder, use tape on recorder, inspect window, exit room, give small key to militia man, go to department P, follow Vovlov to his office, tell him you obeyed his orders and interviewed Goltis's sister. Give him the cassette, tell him you listened



The sofa did it Officer. I saw it. It got up and blasted them then settled down again.

Below: A rendered intro of a plane flying. Yesterday.



CHARLIE CHIMP AND THE TREASURE OF TUTANKHAMUM (AF coverdisk 87b) CHARLIE CHIMP AND THE GREAT ESCAPE

Press the HELP key during play and you will be able to use the arrow keys to move around the game area. Press the DEL key to get back to the game again.



Go wherever you please in these Charlie Chimp games, thanks to this tip.



FROM FAR LEFT:
A foreign bloke in a hat. Some kind of coffee shop and a room you really don't want to ever go in again.



to the tape, answer 'Hollywood'.

In colonel Galushkin's office you will receive another mission, go to exit, select Uncle Vanya's place, go to your bedroom, inspect closet, get clothes, wear it, inspect drawer, get \$60, exit, go to kiosk street, left, enter door, up, use match on matchbox, inspect cupboard, get clipboard, down, outside, left, left, left, left.

Enter building, up, drop clipboard, enter club (lower right door), say 'the barman says it's ok', say 'allow me to contribute to the club funds', offer \$30, right, go to door, get clipboard, knock at door 7, tell girl you want to ask her a few questions, answer anything, inside: talk to left girl, tell her you aren't doing opinion poll, then answers: 2nd, 1st, 2nd, ask about the neighbours: in general then about Bellusov and Chechenkova, say 'I'm investigating...' then 2nd, 1st, exit room.

Knock at the door 5 (Bellusov), select question about Lefortovo then 1st, 4th, 1st, go down, knock at door 4, answer 'no' then 1st, inside: 3rd, 1st, 2nd, exit room (you should spot

two guys going up), up, drop clipboard, enter club, left, wait for punk to leave toilet, enter toilet, use lightswitch, inspect trashcan, get heroin, exit, talk to Petka, decide to go, fight Lyonka, inspect him, get lockpick, move body right, move body into trashcan, right, right, right, right, right, right, right, use lockpick on the door, enter, go lower exit, use match on matchbox, inspect cash desk, flick the switch, go left door, use lightswitch, inspect carcasses, exit.

Go right door, use match on matchbox, inspect desk, flick the switch, go right door, go right door, right, right, right, right, enter, up, knock on door 6, answer: 3rd, 2nd, 3rd, 2nd, inside: 2nd, 3rd, 2nd, outside: drop heroin, use lockpick on door 8, go upper right door, use lightswitch, inspect drawer, get tapes, use it on VCR, inspect all and get everything you can (if you spot guys, don't worry you'll have time later), say anything (you'll end in small closed room), inspect table, get bug, destroy it, wait (Rita will enter the room), tell her all four possibilities, answer: 3rd,

1st, 3rd, 2nd, 1st, 3rd - Harry Greenberg will be pushed inside, answer him: 3rd, 2nd - Rita runs away, talk to him, listen to the door, show the bug to Harry, inspect the buzzer (above the door), answer: 1st, 1st, decide to call Rita, answer: 4th, 1st, 1st, 2nd, 1st, 2nd, 3rd, fight Rita.

Answer 2nd, move Rita onto the couch, inspect drawer, get all, go upper right door, inspect all, get everything, go back, use camera on white paper, put paper into drawer (to the left) hide behind door 8, wait. Verto enters, fight him, inspect him, get all, use camera on blue paper, put blue paper on Verto, go door 8, down, outside, right, right, right, right, right, examine all the photos - you should find 2 texts: LNNRDU13MAOAAK, EIGAAG6PLDGPGR. It means: Leningrad, Aug 16th, 3pm, Ladoga Park. Go to department P, answer Volkov: 1st, answer Galushkin: I must go to Leningrad, Ladoga Park, 5 in the afternoon, August 16. Talk with Guzenko... More next month.

BOTTOM ROW FROM LEFT:
A bloke. A couple of chicks - ouch! Sorry Andrea. And a bloke who you don't want to find standing in your garden at 3am.



HELPING HANDS

POLICE QUEST ONE

Please help, I have been stuck on 'for ages now. I am at the point where I have to get a no bail warrant from the judge but whenever I walk into the courtroom the judge sends me out. Is there something I need to say to the clerk outside to get him to let me in?

Andrew Zarembo
Buckingham

Fear not, Andrew, for help is indeed at hand. Enter the courthouse. Walk to the clerk's window, once he talks to you, say 'I need to see the judge, then say 'I need a no bail warrant, then say this is an emergency. When he comes back, open the door, enter, wait for the judges prompt, say Marvin Hoffman, then say the Hoffman line, say FBI most wanted poster and finally say the tattoo. Now you'll get the no bail warrant.

INDIANA JONES AND THE FATE OF ATLANTIS

I am totally stuck outside the temple and can't get in. The salesman keeps stopping me. What can I do to get past him?

Timothy Ewing
Harris Bay

Simple mate, to get past Sternhart and into the temple simply talk to the parrot. Say 'Rita' to it and it will tell you what you need to convince Sternhart to let you in.

NEW ZEALAND STORY

I can't get past the whale at the end of the first level. Any cheats?

Daghenham
Floreside



Type ELUFFYKWIIS on the title screen for infinite lives. The HELP key enables you to skip through levels.

MONKEY ISLAND 2

I can't win the drinking contest or the spitting contest. Help me chap! Guybrush (yeah, really...)

Isle Of Wight.

When Rum Rogers gives you a drink, tip it into the tree and fill up with water. Then go to the ship's hold and take the water to the ship. The ship already contained the ingredients to make the green liquid. Blow the horn at the contest to distract the referee and while he's away, pick up the flags and switch 'em around. Take a sip of the green liquid using the crazy straw and take your place at the line. Wait until the wind blows the scarf of the woman on the right and then spit. You should finish first.

LEND A HAND

If you're having trouble with a particular game or have a solution to a question printed in the magazine, don't keep it to yourself, write it down or send it in on our special page. We'll be best to print it.

HELPING HANDS

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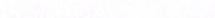
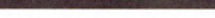
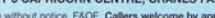
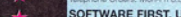
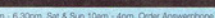
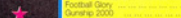
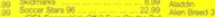
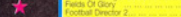
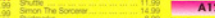
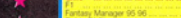
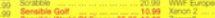
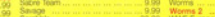
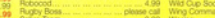
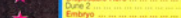
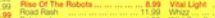
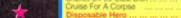
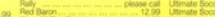
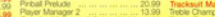
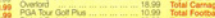
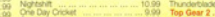
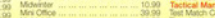
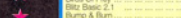
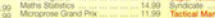
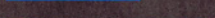
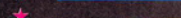
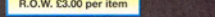
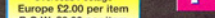
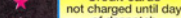
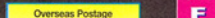
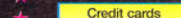
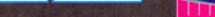
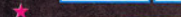
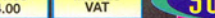
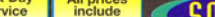
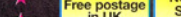
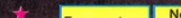
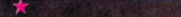
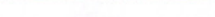
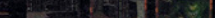
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Clash Of Clans 77	12.99	Prayer Manager 2	20.99	PGA European Tour Golf	19.99

PD select

A veritable Aladdin's cave of PD stuff this month. **Robert Polding** casts his eye over a *Monkey Island* clone and a hard drive security system.



KEITH'S QUEST: (Right) In *Monkey Island* style, there are lots of locations to visit, objects to find and puzzles to solve.



KEITH'S QUEST: (Left) The easy point and click interface makes the game very accessible.

KEITH'S QUEST

By **Jasper Byrne**
Ware **Licenceware**
PD Library **F1 Software**
No of Disks **Four**
Price **£6.99 per disk + 75p p&g**

This four disk set contains one of the best games I have ever come across from the Licenceware arena. *Keith's Quest* is a *Monkey Island*-style game – the soundtracks from each scene are obviously based on *Monkey Island 2* – and you play a character called Keith. Keith is on a mission to free his friend who has been trapped in an orb.

The gameplay varies more than any other adventure game I've seen. There is all the usual walking around trying different things but you also get to do things like playing a game of *Llama Invaders*.

The mouse control is excellent, and the character responds very

quickly. Rapidly scrolling screens mean the game moves quickly and, with a hard disk, they load almost instantly.

Keith's Quest isn't easy, but anyone can get to grips with the puzzles and because of the speed and the option to save your game, you keep loading it again to attempt them another time.

The witty dialogue and stylish graphics mean this release should be part of everyone's collection – it represents a great achievement by a highly skilled programmer.

CLASSIC PACMAN

By **Augenblick**
Ware **Licenceware**
PD Library **F1 Software**
No of Disks **One**
Price **£3.99 + 75p p&g**

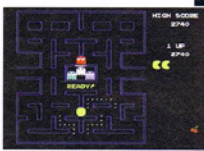
Commercial games are constantly scaling new heights in their advanced

graphics, sound and features. You do begin to feel that in some cases the essential elements of games are lost, such as simplicity and gameplay. *Pacman* was (and still is) one of the most popular games ever written. This is a version without any flashy graphics or samples, and goes 'back to basics', meaning it follows the original arcade style in every way.

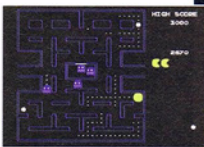
This amounts to a very playable and enjoyable game that will make you keep going back for more. There is a two player option, and this makes the game even more enjoyable. The difficulty can also be changed, from slow to mindbogglingly fast.

This isn't an original release, and it has been done many times before. If you want the 'original' then this is for you, but nowadays some of the more modern versions, such as *Deluxe Pacman*, may be preferred.

Continued overleaf →



CLASSIC PACMAN: Play the original in either US or British versions.



CLASSIC PACMAN: You can almost smell the dingy backstreet arcade...

selection
of the month

ENLOCK V3

By **Mike Carter**
Ware **Shareware**
PD Library **Roberta Smith DTP**
No of Disks **One**
Price **90p per disk + 50p p&g**

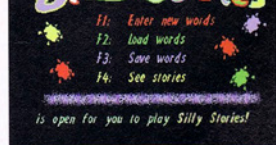
If there is anything the Amiga hasn't got commercially, it's a good personal security system. This type of programme allows you to have a password to access your hard disk and is often built in to PC systems. Enlock has been around for a

while, but this is the first time it really caught my attention.

The system is stylish, professional and easy to use. It is very effective as it literally locks your hard disk to prying eyes, and doesn't allow them to access the data contained without a password.

It uses the Installer system, complete with sampled sounds and does almost all the work for you. Once installed you are greeted with a sound sample when you boot and a very nice animated opening screen. You configure the system by

typing a certain access code when the password is requested. This is a 'crippled' shareware release, meaning there are restrictions if you don't register. In this case you have to wait thirty seconds before your computer boots unless you register, something that you can't live with if you constantly re-boot your system, and registration is just £5, so it's excellent value. If you want to keep prying eyes off your work, or stop your little brother crashing your machine, this is an excellent purchase.



SILLY STORIES: There is a name for programs which make sentences out of random words - I can't remember it though.

SILLY STORIES: It's great fun though, and you can save your word lists to disk too!

more challenging. This is a fun (if fairly pointless) disk and the author was obviously deservedly pleased with the final product. Ideal for anyone who's stuck for something to do.

BORIS BALL (Demo)

By **Benn Wyatt**
Ware **Licenceware**
PD Library **Online PD**
No of Disks **One**
Price **75p per disk + 75p p&p**

There have been hundreds of 'bat and ball' clones but this is one of the best that I've come across. I always look with some doubt at something that tries again at an already tried and tested formula but, as with Pucman, I am delighted when a really good 'clone' arrives.

Boris Ball doesn't offer much over the competition but don't let this deter you - it's still an excellent game. In case you haven't come across a game like this before (which I seriously doubt), you control a bat at

the bottom of the screen and must hit a ball into 'bricks', clearing them from the screen.

All the usual features are here - there's a laser gun and the ability to make your bat magnetic. I found the bat a bit too large, making the game easier than it should, and some of the levels were boring. But there were no problems with the actual game engine, and this is a well presented production.

Despite the old game formula and the existence of better versions this is excellent and certainly well worth adding to your 'clone collection'!

SILLY STORIES

By **Paul Riggs**
Ware **Freeware**
PD Library **Online PD**
No of Disks **One**
Price **75p per disk + 75p p&p**

This is an excellent Amos-written program that allows you to enter words that are then interpreted into

stories - and very funny ones at that. This is the only place you're ever likely to find the three bears visiting Porridgeville only to find their Readybreak has all gone!

The program makes all your stories into good English - you have to enter the nouns, verbs etc. of your choice and the stories are always clear and easy to read.

This is definitely a release to show your friends as it's one of the best I've seen. The interface and presentation is simple, using a text-based system, and you are not allowed to re-edit words.

Several things could have helped the program, such as the ability to exit without having to enter all the words and a mouse-based system with screenmode and font control. But these don't hinder things drastically, and this remains an innovative and extremely enjoyable production.

For all word freaks and people who like some literary humour, but can't afford Private Eye.

AMIBASE 4

By **Keith Grand**
Ware **Shareware**
PD Library **Online PD**
No of Disks **One**
Price **75p per disk + 75p p&p**

A Database is always a useful addition to anyone's software collection but, as of late, the only options for decent databases have been *Final Data* and *Datatore* - both commercial and costing a fortune.

PD Databases have always been around, but they lack the interface and flexibility of their commercial counterparts - with the exception of new programs such as the excellent *Fiasco*.

Amibase 4 attempts to bridge that gap and is one of the better PD databases. The first noticeable difference is its incredible speed. The records can be viewed at a blistering pace, and this could be one of the reasons why there is no flashy interface.

Having said that the interface could be a lot worse. It's obviously AMOS based using four colour buttons. There is also a hard disk installer and utilities, such as a creator for stand-alone disks.

Programs like *Fiasco* are far more configurable and look much better than this does but if you are looking for a simple, hassle free database then this is definitely a good buy.

AMIBASE 4: You will need some imagination to construct the layout of your database.

TOP 10 PUBLIC DOMAIN TITLES

Top 10 courtesy of:

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6. Starblank (util)
7. Inside Info Collection (5 disks)
8. Helping Hands
9. SID
10. Clipart Looney Tunes / Hit Kit 2

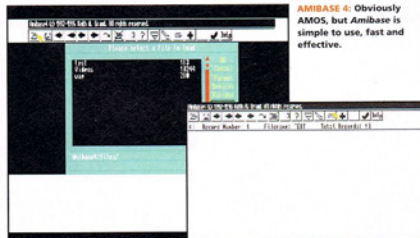
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Other good PD libraries



AMIBASE 4: Obviously AMOS, but Amibase is simple to use, fast and effective.

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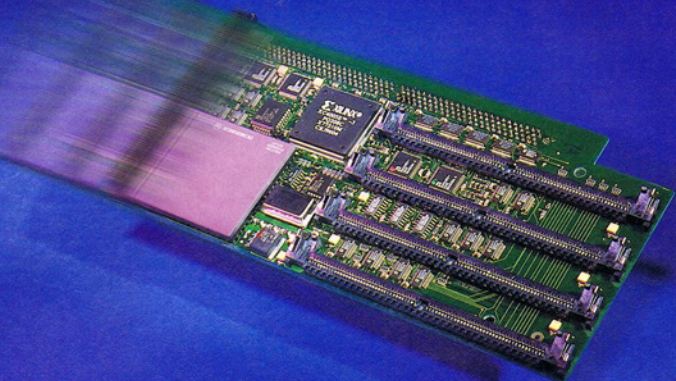
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AF SERIOUS



The new member of the Cyberstorm family from Phase 5 is seriously fast. **Simon Goodwin** checks it out ...p54

AMIGA
FORMATSURPRISE
SURPRISE

Probably the most surprising verdict this month was **Dave Taylor's** review of the CD-ROM drives, both were really excellent pieces of equipment.

Remember to take a look at the extensive Cyberstorm review by **Simon Goodwin**, who also reviewed the GVP 68060 accelerator last issue.

Nick Veitch gives StormC a

really good going over and our Internet expert, **Darren Irvine**, looked at two new programs from HiSoft, Termite TCP and a commercial version of iBrowse - they can be bought separately or bundled with an email system. Lastly - don't forget the CD-ROM pages - **Graeme Sandford** picks out the best on offer this month.

REVIEWS

54 CYBERSTORM MARK 2

Following up from the original, the latest Cyberstorm is fast and easy to fit. Just stick the memory on the board, put the board in the computer and you're off. But what are the advantages over the original and is it any better than the GVP board? **Simon Goodwin** finds out.

56 CD-ROM DRIVES

Two new CD-ROM drives, one from Siren and one from Eyetech. **David Taylor** checks them out and, for once, he's more than happy to take his machine apart.

60 STORMC

The only current C compiler which actively supports 68060 optimisation, this brand new package uses the familiar language but with a new project manager. Ideal for beginners and experts alike. **Nick Veitch** gives it the once over.

62 TERMITE TCP & IBROWSE

Two products, supplied by HiSoft and designed to get you on the Net. Termite is a TCP stack from Oregon Research and this is the first commercial version of iBrowse, but are they really worth paying for? **Darren Irvine** investigates.

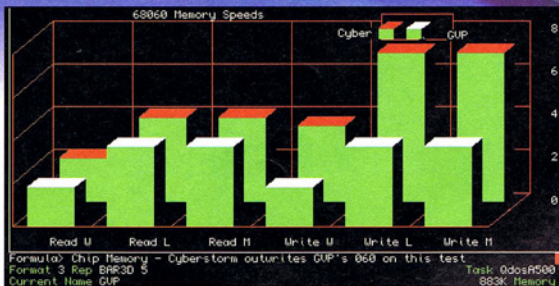
65 CD-ROMS

Graeme Sandford checks out a new bunch of CD-ROMs, including the latest releases from the excellent Aminet series.

Cyberstorm Mark 2



Simon Goodwin tests the re-engineered version of Phase 5's top-notch accelerator.



The Cyberstorm Mark 2 follows up the original Cyberstorm – the first 68060 accelerator for any Amiga. The Mark 2 fits all Zorro 3 Amigas, including tower versions of the A3000 and A4000, as well as desktop models. So, how does it compare with the Mark 1, and its other rivals?

The Cyberstorm Mark 2 is a single board slightly larger than the GVP 68060 accelerator reviewed in AF88. The main differences are that SCSI

ABOVE: This graph clearly illustrates the advantage of the Cyberstorm over the GVP 68060.

control is an add-on at extra cost, and the four 72-pin memory sockets are relatively widely spaced so that SIMMs can slide in obliquely, rather than at right angles to the board.

The 68060 processor has no heat sink or fan, and soon gets too hot to touch. However, I did not run into overheating problems and the official word from Phase 5 is that you shouldn't need one.

Low-profile design means that the whole assembly will fit the tight space in Commodore Amiga Towers, including the A3000T and A4000T, which were too cramped for the Cyberstorm Mark One. The optional SCSI adaptor still plugs into a socket at the end, extending upside down under the A4000's rear drive bay and this does make it a bit tight.

The SCSI board did not arrive in time for our review, so we used a Zorro 3 SCSI card, standard IDE and floppy drives. There is little noticeable performance benefit from the 68060 with Commodore interfaces, as the bottleneck is the motherboard. The

IDE drive works a little faster, but still ties up the processor.

Phase 5 notes that Zorro 3 DMA devices are incompatible with the A3000 and Cyberstorm Mark 2. Apparently this stems from a fault on the main board. However the built-in SCSI I interface on the A3000 motherboard is compatible, and can access Cyberstorm fast memory without limitations.

DOCUMENTATION

The documentation is well-printed but poorly translated from the German. A few sentences seem to have passed the translator by, while some translations are opaque – how about 'praxis-proven emulation'?

But the manual tells you what you need to know, and includes clear photographs and tips on installation in a desktop A4000. The documentation says that Kickstart 3 is required – all A4000s have Kickstart 3.0 or 3.1, and should work fine, but if you're running Kickstart 2 in an A3000 you may need to upgrade – check with Harwoods before you buy.

PLUG AND PLAY

The greatest thing about the Cyberstorm Mark 2 is the total absence of configuration jumpers. You just stick the memory on the board, the board in the computer, and off you go.

You can mix SIMMs from 4Mb to 32Mb in size, and they appear as a contiguous block of memory.

The trade-off is that memory access on the Mark 2 is slower than on the original, yet it still only works with

AIBB

The old intuition benchmark AIBB is not 68060-aware, and must be tricked into running on the Cyberstorm by pretending it's a very fast 68000 and 68060. This stops it using some later improvements to the instruction set, but still reveals CPU performance about four times that of the A4000/040, twelve times faster than the A3000. Like all benchmarks, this is an average; 68030 systems lag most in floating point speed, while Commodore's 68040 board has particularly slow memory access.

Most tests rate the GVP and Phase 5 boards neck and neck. The most pronounced difference is that GVP score eight per cent higher on the FMatrix test, while the Cyberstorm was five per cent quicker on AIBB's InstTest.

SIMMs rated at 70ns or faster. This rules out 80ns SIMMs fitted on the A4000 motherboard, although you can leave them in place, where they can be read a bit faster than with older CPUs.

The manual warns that 'SIMM modules of the most different producers are on the market which do not keep the imprinted speed.' In practice, it worked fine with all the 70ns SIMMs in my collection.

You may need to move a couple of jumpers on the Amiga motherboard, as the Mark 2 is an asynchronous board – it does not provide timing signals to the A4000, unlike Commodore's 3640. If you're replacing one of these with a Cyberstorm you must move JP100 and 104, next to the CPU connector, to the 'internal' position.

SOFTWARE

The Mark 2 comes with a 68060 library and a replacement for Commodore's 68040 library amongst other software.

CyberGuard is Phase 5's version of Enforcer. It is particularly useful for C and assembler programmers, catching errors hard to find by other methods.

CyberPatch and CyberSnooper boost programs developed for earlier Motorola processors. CyberSnooper checks for references to absent instructions, and CyberPatch replaces the original code with updates to suit the 68060.

These Cyber-utilities came with the original Cyberstorm but they've had minor tweaks to improve performance. Support files now also include an updated shareware copy of Barfly, and the latest PhoenixAss assembler.

ROM2FAST is a new tool to copy Kickstart into Cyberstorm fast memory. It's the equivalent of GVP's KSREMAP, except that once used there's no way to cancel it and regain the 512K of fast memory used to hold the ROM image.

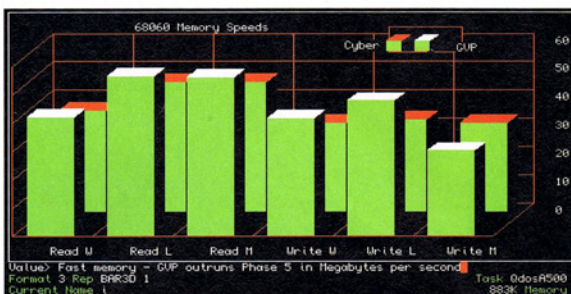
CyberMapper is similar but intended to load a different ROM from that built into the machine. I was unable to get it to work with Commodore's developer 68040 Kickstart files.

COMPATIBILITY

The Mark 2 Cyberstorm is fast and compatible with almost all software for high-end Amigas. The main obstacle is the copyback cache, on the 68060 like the 68040, which delays writes to memory, boosting performance but upsetting some programs that work fine on 68030 and earlier Amigas.

In general, 68060s run 68040-compatible programs around two times faster. This factor will increase as new programs make better use of the multiple execution units in the 68060.

Commodore's CPU command is one of the few 68040-friendly tools which does not work properly on the 68060. Phase 5's replacement, CPU060, can toggle features of the 68060 like superscalar execution and the branch



ABOVE: In comparison, this graph shows the advantages of the GVP 68060.

cache – not that these cause problems on any programs I've encountered. But there's no COPYBACK option, so the only way to fix programs that object is to disable the data cache completely – slowing down both reads and writes. GVP's replacement CPU command has the same weakness.

PERFORMANCE

The GVP is slightly faster at reading from its own memory and much faster than the Cyberstorm 2 at word and long word writes to its own memory.

But Cyberstorm 2 is much faster at writing to chip memory. The difference is so great – almost a factor of two – that I guess they're emulating the 68030 cycles unusually accurately. This refinement will make a difference to AGA graphics and other Amiga hacks that rely heavily on writes to the motherboard, like Parnet, serial drivers and 14 bit audio replay – this is good news for those with a predilection for ShapeShifter, Gloom and AGA animations in particular.

It remains to be seen how well the Cyberstorm 2 SCSI board will perform. The SCSI 2 adaptor is a new design – a good thing in view of the vagaries of the Mark 1, but it's still an add-on board,

whereas the GVP and Warp Engine have fast built-in NCR chips. So I tested the Mark 2 Cyberstorm with a DKB 4091, from Power Computing.

It performs fine with Cyberstorm Mark 2, although hogging most of the CPU time while busy. Phase 5's forthcoming adaptor SCSI should fix this, though it remains to be seen if it can match the frugal 1.3 per cent CPU utilisation of GVP's SCSI2 implementation.

OVERALL

The Cyberstorm Mark 2 is an improvement on the original, most notably from a mechanical point of view. Phase 5 have squeezed the functionality of three original boards onto one, making a unit that fits the cramped space inside A3000 and Commodore Tower cases as well as the standard desktop A4000.

If you're after a very fast A4000 processor, the Cyberstorm Mark 2 must be a serious contender. The top speed for fast memory is slower than for GVP, but configuration is easier and more flexible. If you hate setting jumpers, and want top-flight Amiga processing in a big box, then this is definitely the board for you!

CYBERSTORM MARK 2

DISTRIBUTOR

Gordon Harwood
01773 836781
White Knight
01920 822321

PRICE

£699.95

SYSTEM REQUIREMENTS

Zorro 3 Amiga
(any 3000/4000(T))

SPEED

Motorola's finest by far.

MANUAL

Probably better in German.

ACCESSIBILITY

Much better than Mark 1.

FEATURES

The only feature missing is Virtual memory.

VALUE

You get what you pay for.

"A significant improvement on the previous version and strong competition for the GVP 68060."

90%



We have always said that it shouldn't be done, but here **David Taylor** introduces two new drives that change all the rules.

IDEal

It looked like a SCSI version but on closer inspection it became clear that the Siren drive was capable of much more.



Siren CD-ROM

We've always remained adamant that trying to attach more than one IDE device to the A1200 is a very bad idea. It's been a common Workbench question from people who want to expand beyond a single hard drive but don't want all the expense of a SCSI adaptor. After all, take a look in any of the PC mags and you can see IDE CD-ROM drives selling for £50. No wonder Amiga owners want a cut of the action. The problem has always been that while most new PCs have two IDE interfaces allowing up to four devices (a primary and slave unit on each), the A1200's IDE interface can only have a single hard drive attached. Or so we all thought. There are now at least two drives which take advantage of a revolutionary piece of software called *IDEFix*, which overcomes the problem.

SIREN CD-ROM

The Siren drive was the first unit to arrive and a cursory glance suggested, largely because of the SCSI type housing, that the drive was simply a SCSI version attached using the DataFlyer which fits onto the IDE interface. We were wrong – and remember, don't ever attach a SCSI device to this unit because it not only won't work, but it is also likely to damage your equipment.

To fit the drive, you have to take your Amiga apart, and if you have a hard drive fitted, remove the data ribbon. You also need to lift off the floppy drive. A ribbon goes from the IDE interface to underneath the floppy where the spare port is situated. There it attaches to a circuit board which you screw down. If your drive is 2.5", there is a second interface off the ribbon cable to use, but if it is a 3.5" drive then you take a



second lead back from the plate to the drive. Then you put everything back together and attach the unit to the port. The CD drive itself is an IDE device housed in a SCSI case, with a ribbon going into the back where the case joins. This is a bit ropey, because it does lead to the wrong conclusions. The SCSI ports should at least have been covered over.

When the hardware is set up, you simply need to install the software (or do this first if you want). When it has installed, you need to add a line into your startup-sequence and you're set to go. All you need do is use *CDFind* to locate the drive and then set up a CD mountlist, which is easy.

When in use you will find the speed of the drive is amazing. It far outstrips any SCSI CD-ROM I have used on the Amiga. Directory listing is almost instantaneous – faster even than my hard drive and copying files is as fast as between two hard drives.

CD PLUS

Eyetech sent us a complete IDE solution. With this kit, you can now have up to four IDE units on the A1200 – although we only had three to test. Although it relies on the same software as the unit from Siren, it is a very different unit. With this you get a larger circuit board that doesn't look very elegant, but which is very powerful. A ribbon from the IDE interface goes to the board, and then two more come off – one goes to the internal hard drive and the other has two interfaces on it and goes out to the external units.

Eyetech decided that many owners would feel uncomfortable with removing their floppy drive to fit the hardware (probably a correct assumption, although there is no

Eyetech CD-ROM



The large circuit board may not look very elegant but the Eyetech drive has plenty of attractive features.



Solutions

valid reason for it). Instead the circuitry sits next to the IDE interface and the ribbon cable is simply fed out between the join of the A1200's case on the left. This doesn't look exceptionally professional, but the nature of IDE cables is that they are normally internal, so they never look that great. It does mean that users can place the new units on the left without masses of cable sitting around, which is what most people want.

As well as a CD-ROM drive, we have had an IDE EZ 135 drive to try. The back of the units have been properly adapted with the SCSI ports removed and replaced with a single IDE in port. The CD drive has a power out port for you to plug the EZ drive into. This way you only need a single plug for both units. The data ribbon has the two interfaces and you simply plug one into each unit.

The CD mounting software is the same as that on the Siren unit – a standard mount file. The EZ drive mounts with a custom command – if you want all of this done every time you boot, you just put them all in your WBStartup drawer. There is also a Mountlist for using MS-DOS formatted EZ cartridges.

UNBELIEVABLE

I really don't have the space here to do these drives proper justification. They really are both exceptional pieces of equipment, giving you cheap expandability and speed – the EZ drive works faster than my hard drive! Given the choice, I would probably go for the Eyetech drive because it allows more IDE devices and is the easiest to fit. Having said that, if you really don't need to expand beyond the CD drive, then either is fine, but check out the prices to make sure that you get the best deal.

SIREN CD-ROM

DISTRIBUTORS

Siren Software 0161 796 5279

PRICE

Siren: 8x £239.99

A1200 4x £169.99

SYSTEM REQUIREMENTS

A1200

SPEED

Very, very, very fast.

MANUAL

A single sheet but easy to follow.

ACCESSIBILITY

Very easy to fit

FEATURES

We said it was to be avoided. They have proved us wrong.

VALUE

Now can an 8 speed costing under £80 in a PC mag cost over £200?

"I was pleased to take my Amiga apart."

90%

EYETECH CD-ROM

DISTRIBUTORS

Eyetech 01642 713185

PRICE

Eyetech: 8x £199.95

EZ135 (inc. casing) £129.95

SYSTEM REQUIREMENTS

A1200

SPEED

Choosing between this and SCSI is easy.

MANUAL

There are pictures included to make it even simpler.

ACCESSIBILITY

You just have to be comfortable with a screwdriver.

FEATURES

Two IDE devices would be good enough, but Eyetech go for four!

VALUE

Maybe you should look at buying the CP Plus hardware and buying the units yourself.

"An absolutely superb bit of kit."

96%



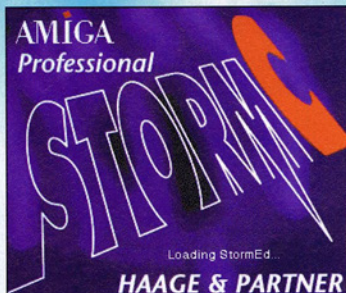
Say it with words

There has been a revolution in desktop publishing and the Amiga now has all the tools needed for professional work. Our DTP expert, Larry Hickmott, guides you through an extensive guide to getting the most out of DTP. Plus reviews of Storm C, the brand new C compiler, Font Machine 2, the textured font creator and two new Internet programs - Termite TCP and IBrowse. Don't miss it!

AMIGA SHOPPER

Issue 68 on sale NOW!

StormC



A storm is rising, but just as Nick Veitch is about to get his brolly out, he discovers it is in fact a new development package...

You may think there is nothing sexy about a C compiler. You may associate C programs with long haired people, resplendent in their anoraks, sitting cross-legged somewhere and typing arcane instructions in a shell like "nasc a-c -d N=12 g30p.c". Well, who am I to say you are wrong.

But there are a few things you haven't considered. The first is that without a top notch C compiler for the Amiga, you wouldn't be able to play around with so many of the programs, tools and utilities you take for granted. The second is that C no longer works that way.

Of course, the language itself is the same – it is a standard – but the way programs are generated has changed. Since the excellent Think C on the Macintosh, and Visual C on the PC, the emphasis on C program development is all to do with the environment the code is created in. The term "Project Manager" no longer refers just to that funny chap with the briefcase and

BELOW: StormEd has some excellent features, including keyword colouring, but is still lacking in some areas.

mobile phone that nobody wants to talk to at parties. It is now also taken to mean an integrated environment for creating programs.

StormC is the first Amiga compiler to feature such a well developed environment, so it's a big surprise that it actually works very well. It is really just a matter of typing in your code and clicking on a button – no more creating batch scripts or laboriously going through the compiling and linking process via the shell. Although the individual components still exist, and you can still generate everything manually if you really want, the project manager seamlessly co-ordinates everything for you.

A PLACE FOR EVERYTHING

One of the most useful features of the project manager is the automatic recognition of filetypes. Thus when you add headers to your project, they appear in the headers section automatically, as do source files, locale catalogues and even docs and AmigaGuide files. In fact, if you run StormC on the Workbench screen (which is only really advisable if you have a decent sized display area) you can simply drag files into the project.

Double-clicking on any of the entries performs the appropriate action – AmigaGuide files will be viewed, docs read, source code loaded into the editor – everything is automatic, and highly configurable.

A handy little action bar is included if you can't remember which function key you should be pressing, and a little prompt message pops up to remind you what you are about to do whenever the mouse passes over the icons. This

BENCHMARKS

We have said many times before in *Amiga Format* that benchmarks don't really mean that much. The perfect benchmark has never been made. However, I am a hypocrite, so here are some benchmarks that I used to check the code optimisation of the compiler.

The basic test was based around a number of 64 by 64 matrices, filled with double precision floating point numbers, which were then multiplied, divided, and combined together in ways that modern science should best steer clear of. The reason for this is that floating point operations, and indeed, huge arrays, are often the weakness of optimisers and a deficiency of the later series of 68000 processors.

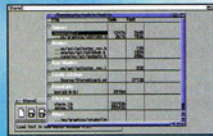
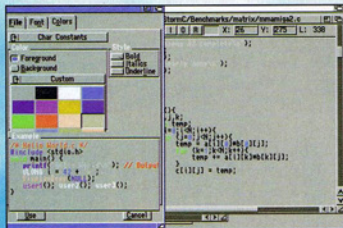
One final note, the version of the program compiled with SAS/C was compiled using slightly different libraries, so it is unfair to directly compare them, though it does tend to suggest that the optimisation routines in StormC could be improved upon.

Compiled code	Relative run speed
68000 code, no optimisation	1.00
68000 code, opt. level 6	1.37
68030 code, no opt.	6.21
68030 code, opt. level 6	6.45
68060 code, no opt.	6.91
68060 code, opt. level 6	259.8
SAS/C opt. for 68040	283.4

(all tests run on a 68040 processor)

simplicity certainly eases novice programmers into the C environment, without taking away any of the power – you can still fiddle around with all the linker and compiler settings via a nice preferences screen, rather than having to remember the magic keywords.

This brings us on rather nicely to some of the options you can change. StormC is the first C compiler on the Amiga to include support for optimising code for the 68060 processor. Up until now C programmers on the Amiga have not been able to take real advantage of the fastest processor known to Amigakind. This can be crucial for the best performance of software on the '606.



ABOVE: File recognition means all project files are organised appropriately.

WIZARDS

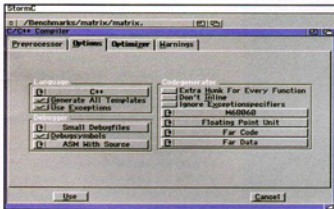
Okay then, there still are some arcane features of programming. But these Wizards aren't little chaps in pointy hats, but a rather more useful code generation utility. Storm Wizard is a utility for generating GUIs. Quite simply, you use the program to generate menu items and windows, then it compiles the necessary code. I wouldn't say it was terribly easy to use, but it's certainly a damn sight easier than manually writing the code for every window your project is going to need.

Many people may have heard how some programs actually run slower on the '060 than on an '040. Without getting too deeply involved, this is because some FPU instructions have been simply rationalised out of the '060's built in FPU system. In order to retain backwards compatibility, the '060 has to anticipate these instructions and emulate them, which can take much longer. An optimisation program which could foresee these problems and replace worrisome code, as well as using some of the more advanced instructions which have been added, would certainly speed up execution on an '060 by a great margin. In fact, you can see the differences for yourself in the benchmark boxout. Haage & Partner also intend to update StormC to



We are off to see the wizard - well okay, we are just using the excellent Storm Wizard (available separately) to create a nice GUI.

The compiler options allow for optimization for the '060 and other CPUs, amongst other features.



include support for native PowerPC applications, when a PowerPC based Amiga finally becomes available. Let's hope they may consider producing their own assembler too, instead of relying on Frank Wille's, admittedly excellent, PhxAss assembler.

STORMING

Every C programmer has their favourite text editor. Cygnus Ed, Edge, TurboText, GoldEd or whatever. Frequently they will claim that they can't write code without them (and usually this is true, as you can quite easily build up a huge collection of macros for loops, intuition functions and all sorts).

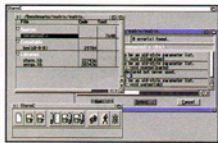
It is sad to report then that, in spite of some rather excellent features, the integrated editor, StormEd, has no facility for even the simplest macro functions. Neither does it offer multiple

or split views on the same source file (although you can have different sources open simultaneously). In a way this isn't really a surprise - they are writing a C development system, not necessarily a text processor, and since most programmers grow rather attached to what they are used to anyway, maybe it didn't seem that important. You can change the preferences to automatically launch GoldEd instead of StormEd, but if you want to use another editor, you'll have to save and import the text manually.

This is a great shame as StormEd has some wonderful features, not the least of which are the context sensitive text colouring (which quickly identifies comments), and associated syntax checking, the automatic indentation, bracket matching and the jolly useful undo buffer. There is even intelligent autosaving. Maybe next version...

AFTER THE RAIN

It may seem like I don't like this compiler system very much. That isn't true. It is a wonderful leap forward for all Amiga programmers. At last we have



The integrated environment also includes an excellent debugger.

a development tool which offers the kind of features programmers on other platforms have taken for granted for years. It also doesn't mean abandoning any previous code you may have written, as the system retains a very high degree of compatibility with SAS/C.

However, there's still room for improvement, particularly in the optimisation and the supplied editor. The asking price may seem a little steep too, but if you compare the cost to similar systems on other platforms, which retail for about twice as much, it isn't quite so bad. If the deficiencies in this version are cleared up, then the next will be even more of a bargain.

STORM C

DISTRIBUTOR

Blittersoft
01908 261466

PRICE

£269.95 (£179.95 if you're using another C compiler and wish to swap to the Storm C package).

SYSTEM REQUIREMENTS

WB 2, 3MB RAM and a hard drive.

SPEED

MANUAL

Some poor translation, but detailed in how the project manager functions.

ACCESSIBILITY

Because of the one-click compiling it is ideal for novice programmers as well as professionals.

FEATURES

The only current Amiga C compiler which actively supports 68060 optimisation.

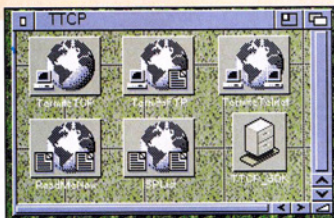
VALUE

It may seem a tad expensive but not if you consider the cost of C compilers on the Apple Mac or on the PC.

"A tremendous new development environment for C programmers of all standards."

86%

Termite TCP



• Termite TCP is simple to install and get up and running.

Termite is one of the growing number of TCP stacks available for the Amiga, and is supplied commercially by HiSoft and developed by Oregon Research.

One of the main advantages that *Termite TCP* has over longer-in-the-tooth systems, such as AmiTCP, is that it is amazingly easy to install and set up. There is none of the usual messing around with environment variables or editing of user-startup. You don't even have to waste hours setting up a dial-up script. In fact, I was able to install and get connected to the Net within 15 minutes of taking the *Termite TCP* disk out of the box.

The manual is extremely helpful, and takes the user through each stage of the installation and setup procedure, including using the excellent dial-up script creation tool. This works by

Darren Irvine takes a look at a couple of software packages from HiSoft aimed at letting you get more from your Internet connection.

getting you to log into your ISP manually and recording the prompts and your own keypresses. *Termite TCP* then automatically creates a dial-up script that is used for all subsequent logins. As long as your ISP has supplied you with the correct information regarding IP numbers, email addresses and so on, then anyone will be able to get *Termite TCP* up and running.

If you're still at the stage where "IP numbers" or "DNS" means nothing to you, *Termite TCP* can help there too, as the manual comes with a comprehensive "Reggie's Guide to the Internet" section. In this, the inexplicably named Reggie the Termite gives a brief overview of the Internet, and covers all the terms that a complete



• Termite FTP works well enough, but lacks the feel of some other file transfer systems.

novice needs to get to grips with. There is a guide to the type of Internet software available as well as a list of useful sites on the Net itself.

All is not sweetness and light with *Termite TCP* however, since, despite an excellent manual, there are some problems and omissions with the package itself. For a start, there is only support for PPP type net connections, and although this shouldn't be a problem for most ISPs, it must be borne in mind if you are moving over from a SLIP-based system. Also, although *Termite* comes with FTP and Telnet clients, that's it — no email or news software comes supplied. Admittedly these are easy enough to obtain from the Net itself, but their omission detracts substantially from a system which is otherwise ideally suited to complete newcomers to the Net.

The other main problem is that, despite the inclusion of a support library, some applications designed to run under the AmiTCP system don't operate correctly. In some cases the only problem is a mysterious error message when you first run the application but which doesn't cause any other problems. At the other end of the scale, I wasn't able to get the IRC client "Grapevine" working at all. No doubt someone will email me now and tell me what I was doing wrong, but the point is this further detracts from what should be an easy to use system.



• In a similar way to the FTP program, *Termite Telnet* is a no-frills program, but it works well enough.

TERMITE TCP

DISTRIBUTOR

HiSoft
01525 718181

PRICE

£59.95

SYSTEM REQUIREMENTS

Min: 68000 1Mb Chip RAM, Floppy drive.
Preferred: 68030, 2Mb Fast RAM, a hard disk.

SPEED

Fast for almost all operations.

MANUAL

Excellent written and informative.

ACCESSIBILITY

Easy for even novices to use.

FEATURES

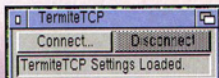
Features could come with more applications.

VALUE

A tad pricey when compared with Shareware alternatives.

"If Termite was PD I'd recommend it to everyone but its price and lack of supplied applications let it down."

70%



• BELOW: This tiny window is all that's used to connect and disconnect to the Internet using *Termite TCP*.

& IBrowse



● IBrowse supports image positioning and backgrounds well enough, but the program can't handle image re-sizing.

Second up from Oregon Systems via HiSoft is the commercial version of the IBrowse web browser.

IBrowse has been knocking about in various forms for a while on the Net, but this commercial version is the first that really looks like a professional product (which is no doubt, why they've decided to charge real money for it).

IBrowse requires the use of Magic User Interface (MUI) but thankfully this is also included in the price of the IBrowse system itself. Installation is relatively straightforward, with little to fool the novice.

Running IBrowse for the first time is also simple, and (providing you have an open connection to the Net) actually browsing the Web is a "Click on the Icon and Go" affair. There are various options available regarding such details

as what type of screen to run IBrowse on, and whether or not you want various buttons and gadgets to appear on your IBrowse screen, but as with *Termite TCP*, the manual is very well written and makes getting the most out of the program very easy.

Actually using the program without recourse to the manual is made easier by virtue of MUI's bubble help facility – just leave the pointer over a gadget and after a moment or two a little help bubble will pop up to tell you what that gadget is for.

Another useful feature provided by MUI which is implemented in IBrowse is the FAB Menu. FAB stands for Fast Action Button and the menus are activated by clicking with the right mouse button on certain areas of the Web page that you are currently viewing. For example, right-clicking over an Image gives you the option to display it in an external viewer, or to save it to disk. Similarly, with the links,



● IBrowse also features a very neatly implemented internal HotList.

you can open the link, add it to your HotList etc.

On the subject of images, IBrowse copes fairly well with most of the extended HTML tags spawned and implemented in Netscape, including background textures, image positioning, and inline-jpegs. One area which lets it down however is the lack of support for image-resizing. A common HTML technique is to use the same image several times on one page but displayed in different sizes (for instance as one large image and several smaller ones used as buttons). With IBrowse they are all displayed at the original size. Maybe I'm being picky here, but it definitely makes my own homepage look a bit of a mess.

On the other hand, support for features such as the Hotlist, and the overall operation of the program are very good (if a tad slow), and during testing IBrowse remained stable, and surprising for an Amiga web browser, failed to crash even once.

Note that IBrowse is bundled along with *Termite TCP* and an email system for the same price as both packages combined – £89.95



● All you HTML fiends will be glad to know that IBrowse includes a "Display Source" feature.

IBROWSE

DISTRIBUTOR

HiSoft

PRICE

£29.95

SYSTEM REQUIREMENTS

14k4 Modem connection, 3.5Mb hard disk space, 3Mb free memory min, 68020 or better, WB 3.0 or better.

SPEED

Slowish with graphic-intensive pages.

MANUAL

Well written and easy to use.

ACCESSIBILITY

Installation simple and operation easy.

FEATURES

Does just about everything you could want from a Web browser.

VALUE

Good value when the package as a whole, including the manual, is considered.

"The market is becoming saturated with Web browsers, some of which are still free. The advantage you get paying for IBrowse is an easy-to-use stable system with a useful manual."

85%



● The various components of the IBrowse screen can be customised, in most cases by simply dragging a group of buttons or whatever to wherever you would like them.

ProGRAB... Rapid Frame Grabbing on your Amiga

Now compatible
with both VHS
and S-VHS!



The revolutionary S-VHS ProGrab™ 24RT Plus with Teletext is not only the best way to get crisp colour video images into your Amiga, from either live broadcasts or taped recordings, it also costs less than any of its rivals. This real time PAL/SECAM/NTSC* 24-Bit colour frame grabber/digitiser has slashed the price of image grabbing on the Amiga and, at the same time, has received rave review for its ease of use and excellent quality results. ProGrab™ has earned honours from just about every Amiga magazine and Video magazines too! And... with ProGrab™ you needn't be an expert in Amiga Video Technology, a simple 3 stage operation ensures the right results - Real Time, after time.

STAGE 1...

Select any video source with S-VHS or composite output. This could be your camcorder, TV with SCART output, satellite receiver, domestic VCR/player or standard TV signal passing through your VCR/player... the choice is yours.

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

or, Take a signal from a TV with SCART output...

or, Use the signal from your satellite receiver...

or, Grab TV or video pictures from your VCR's video output including S-VHS.



STAGE 2...

With ProGrab's software, select an image you wish to capture using the on screen preview window and Grab (because the hardware grabs frames in real time, there's no need for a freeze frame facility on the source device). Once grabbed, simply download and view the full image on your Amiga screen. ProGrab also includes a Teletext viewing and capturing facility from either TV or satellite sources.

STAGE 3...

Use the 'grabbed' image with your favourite word processor, DTP or graphics package.

ProGrab really does make it that simple!

ProGRAB™
S-VHS 24RT Plus

Camcorder User commented: "If you're looking for a high resolution 24 bit digitiser then, at this price, ProGrab 24RT represents great value for money."

camcorder USER



ProGrab™, voted as **The Best Video Hardware** product for the Amiga. This is especially pleasing because the award comes from the Amiga Propper magazine readers.

Our Satisfied Customers!

ProGrab™ - Amiga Shopper **95% STAY BUY** and remarks like, "Sharp, crisp and faithful to the original colour, we were mighty impressed" and, "Highly Recommended, whether you are a Videographer or a Graphic Artist, look to the ProGrab 24RT Plus, it's a winner!"



ProGrab™ - Amiga Forum **93% Gold Rating** and comments like, "ProGrab 24RT Plus is quite simply the digitiser to get", "Incredible value for money - no other digitiser offers so much for so little!" and, "Offers far more features than any other digitiser near the same price."



CU Amiga said ProGrab™ is, "Just the job for beginners and semi-professionals on a tight budget and... very hard to beat. For the money, nothing can touch it."

AMIGA

For just **£129.95...**

ProGrab is supplied with everything you'll need:

- ProGrab™ 24RT Plus Digitiser
- Latest ProGrab Version 2.5.x Software
- Main Power Supply Unit
- Parallel Port Connecting Cable
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- User Manual

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ProGrab's optional PCMCIA interface includes the latest version software and extends performance for serious/professional users - offering the following benefits:

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- Sound sampling and animation capabilities (separate sound sampler required)
- Saving of animations direct to your Amiga's hard drive
- Freezing of your Amiga Parallel Port for use by a printer or other parallel peripheral device

ProGrab™ supports any Amiga with Kickstart 2.04 or later & a minimum of 1.5MB, free RAM.

* A video source cable will be required to match your own equipment set up - Ask for details.

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CD-ROOM ROUND-UP

Graeme Sandiford looks at the latest releases from Aminet and a CD to ease your breakdown headaches.

AMIGA REPAIR KIT EPIC MARKETING ■ 01793 514188 ■ £5

It's a sad, and all too often painful, fact that computers are like any other machine – no matter how well they are looked after, they'll eventually breakdown. The truth and consequences of this were emphasised a few months ago when several external drives developed serious errors because of the hot weather. Thankfully, using a host of the Amiga's most powerful programs, we managed to repair most of the damage.

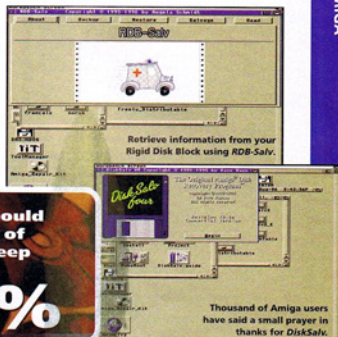
The *Amiga Repair Kit* CD would have come very handy as it's a collection of tools that specialise in repairing disks. This disc should contain the programs that you'll need to

improve your chances of recovering from hard disk mishaps. It includes the legendary *DiskSalv* versions 2-4 from Dave Hanie. A file recovery program called *Recovery*, *RDBSalv* – which specialises in retrieving information from a drives Rigid Disk Block and a backup program, called *DSBackup*, that can make copies mount lists or RDBs so that they can be retrieved.

All this only takes up 35Mb of the CD, but it's a sound investment for most Amiga-users, if only for peace of mind. ☺

"This CD should help plenty of Amigans sleep better"

85%



Thousand of Amiga users have said a small prayer in thanks for *DiskSalv*.

AMINET 13 EPIC MARKETING ■ 01793 514188 ■ £12.99

Yep it's that time again – it's a new Aminet CD full of "new" Amiga software gleaned from that eponymous Internet site. Apparently since the release of *Aminet 12* there has been over 800Mb of data added and this volume contains around 1Gb of compressed programs and

"An animation fest on a CD: worth buying for MainActor alone"

87%

data. However the highlight of this CD, as with other recent discs, is a commercial package – *MainActor V1.55*.

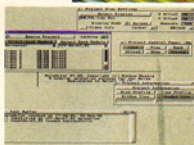
MainActor is certainly one of the best Amiga graphics and animation utilities around. As well as acting as an animation conversion program it also possesses comprehensive editing features. It is possible to add sounds and make intricate changes to the timing of your animations.

The contents of the Aminet directory have a strong accent on graphics programs and files in order to tie in with *MainActor*.

Aside from *MainActor* the contents of this disc might be described as a bit weak, but this program alone is enough to carry the CD. ☺



ABOVE: The contents of the *Aminet 13* CD have a distinct graphical slant.



LEFT: *MainActor* is one of the best Amiga animation utilities.

AMINET SET 3 ACTIVE SOFTWARE ■ 01325 352260 ■ £24.95

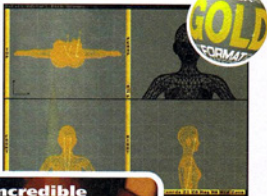
My doesn't time fly, it seems that it was only a couple of months ago that we were reviewing *Aminet Set 2*. In fact it was bit longer than that and this collection looks as if it could be the best so far.

As usual *Aminet Set 3* is a four-CD collection of the best contents of recent Aminet CDs. The thing that makes this one so special is that it includes three commercial programs. The most surprising and impressive of these is *Imagine 4.0*, reviewed in *AF1*.

This is the full version of *Imagine 4.0* and has all of its features. *Imagine* has been one of the Amiga's most popular raytracing packages and version 4.0 has several new features that 3D artists may find useful. Such as Blobs, States, Particles, Stage Effects and material previews.

This package alone would be enough to make the collection worth buying, but *XiPaint 3.2* and *OxMED 5* are both included as well. *XiPaint* is a bit slow but it still has several powerful tools.

There are also tons of PD and Shareware programs that can be used with these packages. ☺



"An incredible collection – possibly the best ever assembled"

96%

The Amiga's most popular raytracing package can be yours for free, well sort of...



Like the new version, *XiPaint 3.2* has plenty of powerful features, even if it is slow.

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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.

PORT CLASH

I am a 52-year old Amiga fan, who needs a little help. I have an Amiga A1200 fitted with a Zydec 8MB memory upgrade and a plug in 170MB Overdrive hard drive, which has been dismantled, and fitted internally to free up the PCMCIA slot to enable me to fit my Zappo CD-ROM drive.

The hard drive unit removed from the Overdrive and fitted into the Amiga is a Quantum LPS 170A. However, I find that with 8Mb configured, the PCMCIA slot is disabled. I have had to re-configure the board to 4Mb, to re-enable the PCMCIA slot.

My questions are:

1. Will using a Dataflyer SCSI+ overcome this problem, and let me use my CD-ROM drive, and re-configure my board to 8Mb?
2. Will the 25-pin connector on my CD-ROM plug into the 25-pin connector of the dataflyer SCSI+?
3. Using a Dataflyer SCSI+, will the data transfer rate by the same as during the PCMCIA slot?

I would be very grateful for any help that you can give me, that will let me use my CD-ROM and the full memory capability of the board.

Mr R D Boot
Shropshire



The problem lies with the memory expansion card: its design means that when configured to supply all 8Mb, it clashes with the PCMCIA port.

1. It really depends on how busy your board becomes, but in general I don't think an 80Mb drive will be anywhere close to being large enough. Forgetting mail for a moment (which will mount up very quickly) and think: if you want to offer files for downloading, you won't have room for many so consider getting a 1Gb drive and preferably a CD-ROM drive as well.

MYSTERIOUS MODEM MAYHEM

I recently upgraded my A1200 by adding a Blizzard 50MHz 030 board. At first things were fine. Everything ran faster and there were no problems. That was until I tried to use my modem. (A Dynalink 1428 VQE, 28.8K). Whenever I tried to use the modem, it would

Continued overleaf →

AMIGA ONLINE

I am going to get a modem soon and I am interested in starting my own Bulletin Board System. Could you please answer my questions:

1. I only have an 80Mb hard drive. Will this be sufficient for a message and file based BBS or will I need to upgrade?
2. When I start my BBS I want to become a FidoNet node. Where is my nearest network co-ordinator?
3. I'm getting the modem for the 14th birthday. Am I old enough to start my own BBS?
4. Can you use RIF style graphics on Amiga BBSs?
5. How can I get on to America On-Line (AOL) with my Amiga? Could I access all the sites they have in America like the WWF Wrestling Site?

Chris Hearn
Hampshire

Getting online isn't easy - the tutorials in AF should help.

[illegible]

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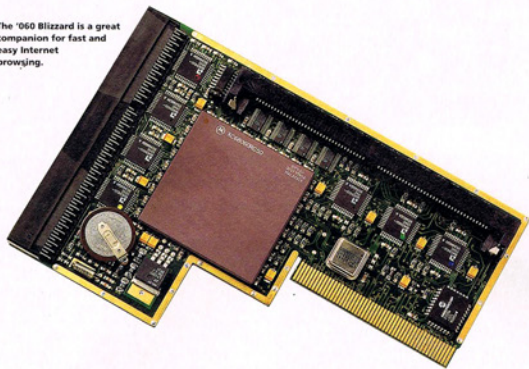
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The '060 Blizzard is a great companion for fast and easy Internet browsing.



...dial out, and connect, but it would not transfer data. In the command window of term, if you type AT, the cursor just blinks very fast instead of saying OK. I have tried everything to get it to work - faster serial settings, different serial devices, different terminal programs - nothing worked. I don't know what else to do.

It has recently become more annoying as I am now on the Internet, and keep having to put my old 4Mb card in to use AmiTCP. I do have a lot of peripherals (1.2Gb drive, accelerator, 16Mb RAM, cooling fan) and someone said it was a weak power supply, so I borrowed an A500 power supply but it made no difference.

If you have any ideas on how to remedy the situation, I would be really grateful.

Stuart Cripps
London
stuart@numb.demon.co.uk

I haven't heard of a problem like this. It could be power related, in which case even an old A500 PSU mightn't make a difference. I would suggest contacting the supplier of the Blizzard to see if anyone else has reported similar problems. It could be that the card itself is at fault, so if you can, try and test it in another A1200 with another modem. Perhaps any readers with the answer will get in contact via email.

MAGIC SURFING

My set-up involves an Amiga 1200 with a 170Mb hard drive and a Citizen Swift 200 printer.

I have almost saved up enough money to buy a modem and a Surf Squirrel but I am getting a bit confused. In his Internet tutorial in issue 87, Darren Irvine mentions that several web browsers require MUI to be installed. What is MUI and where do I get it? Is it the same as Magic Workbench?

Finally, about the Surf Squirrel. Does it come with the leads to connect seven devices to it or do I need to buy new leads with each device? Can I still use the serial port on the back of my Amiga for other devices?

Murray Skinner
Kintore
Aberdeenshire

MUI is "Magic User Interface" and it's entirely different from Magic Workbench. Magic Workbench is a new collection of icons, fonts and textures. MUI is used by programmers to make it easy to add very smart looking buttons, menus and requestors to their programs. If an application program has been written using MUI, the user must install the MUI system for the program to run. You can get MUI from any Public Domain library.

The Surf Squirrel comes with a lead which connects to a single SCSI device. To connect another SCSI device, you need to obtain your own lead and connect it via the through port on the first device. This is a fairly standard

arrangement. The Surf Squirrel also has a 9-pin serial port for connecting to modems. You can still use the Amiga's existing serial port for other peripherals, or even other modems.



QUESTIONS, QUESTIONS

My main problem this time around is that I recently bought a cheap PC BT-approved 14k fax modem. Naturally, it came with only PC software, but the lead was RS232 terminated in both sizes (standard Amiga and 9-pin). Being a well-organised type of guy, I ordered a complete package of PD comms software from Online PD. The package contained mostly archives of packages such as AmiTCP, Thor and AmiFTP.

These came with no unarchiving instructions, so I phoned up Online PD to ask how it was done. They first said "what partition of your hard drive are you going to install to?", to which I replied "hard drive".

I was then promptly told that I had "no chance" of getting onto the Internet without a hard drive. Imagine my surprise, then, when I read a letter in AF about baud rates in which the writer states in passing that he has no hard drive and is certainly successfully using a modem! And on just an A500! My questions:

1. What software will allow me to get onto the Internet without a hard drive?
2. Hopefully it's PD, so where can I get it from? I now have a CD³², which I bought very cheaply for use as a CD player and fully CD³² compatible CD-ROM (albeit single speed, but speed - or lack of it - doesn't bother me). It didn't come with any networking stuff, but I know where I can get it from.
3. What's better, the £60 Communicator box and software or a £10 networking lead, CD and disk? What's the difference?
4. Is it possible to use the CD32 as a CD-ROM drive which will run any Amiga-compatible CD (like a "proper" CD-ROM drive)?

In case you hadn't guessed, I will soon be purchasing a hard drive. Thanks for your amazing Hard Driving series. I have been thinking, though, about the importance of backups. The £60 video backup system from Power Computer (I think) looks tempting, but can you tell me:

5. How good this is in terms of reliability, functionality and
6. Would I be better just spending a little more on a tape streamer, for instance, or even just resorting back to floppies in an emergency?
7. I'd like to get in a free plug for 'Ace PD'. This is a free PD-only (of course) distribution service run by me at the below address. Send me your blank disk(s) and SSAE and I will copy your requests from my PD catalogue, free of charge, and promptly return them to you. For more information and the catalogue, write to me enclosing a blank disk and SSAE. As Ace PD is, of course, a NON PROFIT-MAKING organisation, I trust you won't mind publishing that part of the letter?

Gavin Gumm
183 Solihull Road, Shirley
Solihull B90 3LQ, West Midlands

1. Using a modem and connecting to the Internet are two very different things. Simply because you can use a modem with an Amiga with no hard drive does not mean you can connect to the Internet. With a modem you can dial into Bulletin Board Systems and Online Services such as CIX. A connection to the Internet via an Internet Service Provider requires a TCP/IP stack to be running and quick access to many different applications (mail, Web access, news). All of the



The Communicator means the CD³² can be attached to an A1200 and used as a proper CD-ROM drive.

- required software cannot possibly be squeezed onto a single floppy.
- The software that is used is a Terminal Emulation program. Look out for packages called Nocom and Term.
 - The CD³² is actually capable of working at double speed. Which link system is best? Depends what you want it for. The Communicator is more flexible and easier to set up than a simple serial network. It can view images using the CD³²'s AGA chipset (handy if you have an A2000 or A500).
 - The CD³² is a proper CD-ROM drive. If you mean it is possible to connect it to an A1200 and use it as though it were a directly attached CD-ROM drive, then yes: that's the whole point of the Communicator and other networking solutions. Of course, using a serial link means that it won't be particularly fast.
 - The video based backup system seems to work well. It's great advantage is that it's cheap and automatic: you can leave it to backup whilst you nip out or take a kip. On the minus side, it's quite slow.
 - It's more than a little more on a tape streamer: you'll need a SCSI interface to start with, and then you'll need to track down a suitable drive, cartridges and software. If you were looking to go in this direction you would be better off using a ZIP drive. There's nothing wrong with floppies as long as you are backing up less than 20Mb. Any more, and it takes too long.
 - If you want to advertise your service, have a chat with the friendly NF advertising folks. If you are serious about becoming a PD library, I would strongly suggest you master how to unarchive software first!

MUSIC

I am writing to you in relation to the Music-X program for the Commodore Amiga. Basically, I have a small home studio set-up comprising very few musical instruments. However, I am now looking to expand my studio to take in

more professional equipment. Up until now I have been using a Yamaha QX21 sequencer, but with the influx of more equipment, I need to implement a computer-based sequencing package. I am currently in a dilemma regarding the type of computer to use. On one hand I have been recommended the Apple Macintosh which is quite expensive and on the other hand I already own an old Commodore Amiga 500 which is totally reliable.

I have Music-X version 1.1 which came on the cover of an Amiga Format magazine (AF58a) and only now have I started using it for making music. But, having lost the magazine I am without instructions so I can't exploit the program fully. Hence, the reason for this letter. If you can send me an instruction set in any form whatsoever, even a photocopied basic guide, it would be greatly appreciated.

Sukinder Jhita
Barking
Essex

The Amiga running Music-X is probably the most cost effective way of controlling MIDI equipment, although an A500 might struggle at times and an A1200 would definitely be better. Certainly the Apple had an enviable reputation for music software, but even the PC is superseding it at the moment with the latest Logic and Cubase releases.

Nevertheless, Music-X 2 is a great package and one which I would suggest you take the trouble to obtain. Not only will this mean you won't need to contact the Back Issues department, but you'll also get a great sequencer as well.

MORE MUSIC AND COLOUR

I have an A1200 with 2Mb RAM and 1.6Mb available RAM, a 120Mb Toshiba hard disk set up as DH0/1/2/3. I also have a Datel MIDI Master cartridge and a Yamaha PSR-520 keyboard. I have 3 questions:

- 1) Whilst using Music-X 2.0, in recording I have

Continued overleaf ➔



ABOVE: Music-X 2 built on the success of the original and added a host of new features.

BELOW: But Music-X is still a superb package, especially when dealing with MIDI instruments.



MORE MEMORY, PLEASE

I recently bought an Amiga 1200 (my first computer at the age of 55) as I was led to believe that it was the best platform for DTV. So far I have found it a delightful experience (when I can get it away from my daughters, son-in-law, grandchildren) and have even ventured into fields other than DTV, but it is becoming more and more obvious that more memory is needed.

However, when I see references to trapdoor expansion, PCMCIA cards, accelerators, SIMMS (with X number of pins) PUSs and so on, I become something akin to a Zombie. I understand it's even possible to add RAM to other bits of hardware and by the use of software.

So which is the best/cheapest/easiest to fit? I would be most grateful for some enlightenment on the different ways of expanding RAM and their relative merits.

John Hudson
Derby



Although the A1200 is superb value for money - particularly for DTV - you will soon discover that to get the most out of it you need more memory.

The Amiga is certainly the best value for money when it comes to desktop video: nothing on the wrong side of a thousand pounds will get close. However, as you discovered, it soon becomes obvious that the standard 2Mb of memory isn't enough for all but the most basic tasks.

There are three ways to add extra memory to an A1200: via a trapdoor memory expansion card, via a trapdoor accelerator card and via a PCMCIA memory card. Using a PCMCIA card is not recommended: it's not cheap, not particularly fast and wastes a potentially very useful interface port.

You have to decide whether you want only a memory expansion, or an accelerator and memory expansion. As to ease of fitting, a memory card and an accelerator are attached in the same way. It can be a little tricky if you have never seen it done before, but a read of the instructions, a little patience and a steady hand will make it a five minute operation.

A memory card with 4Mb of RAM will cost about £100, and accelerators with 4Mb start from about £200. The Magnus cards from Wizard are good, as are the Viper and Blizzard cards. Shop around, as memory prices are fluctuating all the time.



EXCESS SPEED

Is it worth getting a 28.8k Fax/Modem as most BBSSs seem to only operate at 14.4k? I ask this because I've seen the Amitek 28.8k modem retailing for around £125.

Which cable would I need, as there isn't one included with the modem, and how easy is it to connect it to my A1200 (hopefully it will have a Surf Squirrel soon).

I also have a timing crystal for a 68882 50MHz FPU (PGA) lying around, as I bought a 50MHz FPU for my Blizzard board but it doesn't need it as it uses the CPU clock. Would this be any use to anybody or shall I dispose of it?

David Bateman
York

Fast 28.8k modems are becoming more common as prices tumble.

I would disagree and say that most BBSSs operate using 28.8k modems: certainly all the better ones anyway. Before you buy a 28.8k modem, make sure it is V24 compatible otherwise there is a good chance it won't actually be able to connect to other modems at other end near those speeds.

A standard RS232 lead will be required. If you are using the serial port on your Amiga, that will be a 25-pin to 25-pin cable. The Surf Squirrel uses a PC-style 9-pin lead instead. Connecting them is as easy as plugging one end of the serial lead into the modem and the other end into the Amiga.

I'm sure someone, somewhere would find a 50MHz oscillator useful. Advertise it online or in the reader ads section of Amiga Shopper.

to have the dual voice button switched on so that Music-X 2.0 recognises the notes. This eats up a fair bit of memory and slows everything down apart from being bloody annoying, seeing as I have to go back and delete all the dual voice notes.

Is there any way that Music-X will recognise my keyboard without my having to do this? I would also like to hear just the MIDI Voices when playing through Music-X but it doesn't recognise when I turn local control off on the keyboard. Aargh! It (Music-X) doesn't recognise remote channels either and I'm starting to wish I hadn't parted with my £50 for the Music-X 2.0 thing in the first place! Please help as I

write a lot of music using my Amiga.

2) I am considering buying a colour inkjet printer soon, but am worried about if I could get a decent enough printer driver for it as they all seem to do only Mac and PC drivers.

3) I am also considering buying a Magnum 030/40 4Mb and 33MHz FPU, but cannot find a review of it anywhere in your magazines. (I have all AF's back to issue 58.) Is this card any good as it is only £350 in one of the adverts in your magazine?

I hope you can answer these as I'm getting a bit peeved.

Callum Stewart

PS Why isn't there a version of CuBase available for the Amiga?

Don't be perved Callum, Amiga Format is always here to help you.

1. I'm not completely at home with the PSR-520 keyboard, but it could be that it has a local echo setting switched on. Thus when you hit a key it makes a noise, transmits the MIDI information to Music-X which then re-transmits the MIDI information and triggers another note. This can get confusing, so try experimenting with all MIDI echo and re-sending options.



2. Most applications (for example, Wordworth and Final Writer) come with their own printer drivers which will create excellent output. There are also third party printer driver products available, so don't let the lack of the driver put you off. Contact the Amiga dealers which advertise in Amiga Format for advice with regard to specific printer models.

I've seen Music-X being used with a Roland keyboard and many external sound modules without problems, so it is possible. By far the best way is to use a "dumb" keyboard (i.e. one which only transmits note information, not sound such as the Evolution MK-149) or a professional keyboard synth (such as a second-hand Roland JX1 or a Novation BassStation). 3. The card was reviewed in issue 64 (July 1996) of Amiga Shopper, in their extensive accelerator card round-up a few months ago. It achieved a good score and a rating of "recommended".

CuBase is a seriously heavy duty music sequencing package, and there simply would not be the required volume of sales to merit a conversion. Music-X v2 is still extremely good however, and offers some unique features. Don't knock it - it's still only a tool. Owning CuBase won't make your music sound magically better!

IF YOU HAVE A QUERY...

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:



Graeme Sandiford

- Be concise.
- Detail the 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.

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Workbench revision:

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Chip memory available

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☐ 1.2 ☐ 1.3 ☐ 2.x ☐ 3.x

Extra drive #1 (3.5in/5.25in) as DF: manufacturer:

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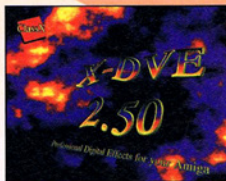
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Amiga.net

More musical mayhem...

Four months of writing an OctaMED tutorial has left Darren Irvine in a musical mood, so much so that it's spilled over into his other column.

This month, in what is surely a first for Amiga.net there will be no carping at the lack of useful Amiga resources on the Internet (even though things haven't really improved). There will be no deriding and lambasting of obviously delusional Amiga users on Usenet (even though as usual there is no shortage of them). There won't even be the usual lame attempt at humour. Okay – so that

last bit wasn't true, but I promise that this month the humour will be so lame that you won't even know it's there at all.

Instead this month I've decided to devote the entire Amiga.net to a subject that's dear to my heart (no, not alcoholic beverages, though that might come later) – music. The Amiga has always been a great computer for musicians (even musicians as cack-handed as myself) and this usefulness has been reflected in a number of interesting Amiga resources on the Internet.

In addition to the sites that are Amiga specific, there are a huge range of sites on the Net that should be of interest both to musicians and to those just interested in listening to music. From FTP sites stocking MOD files, through Record Companies to sites dealing with every arcane musical form imaginable.

OCTAMED AND MOD RESOURCES

If you've been following *Amiga Format's* OctaMED tutorial over the last few months, then you may well be interested in getting hold of even more information about this excellent program. You might also have worked out that, so far, you're a bit crap at producing your own MOD files, and want to get hold of some produced by others so that you can rip them off. Sorry – I mean so that you can benefit from the experience of those who have been using OctaMED for longer than yourselves. Anyway – whatever your specific interest in OctaMED, there are a number of sites on the Net that will be able to supply you with what you are looking for. Here are just a few.

The MOD Page is basically your one-stop site for obtaining a huge range of MOD files. As well as files for OctaMED there are generic MOD files



Quite simply, if you're looking for a MOD file, then the MOD page is obviously the place to start looking.

that can be used with other Amiga based tracker software, as well as what passes for the same on the PC. The URL that you need is: <http://www.teleport.com/~smith1/modpage/modpage.htm>

OCTAMED SOUNDSTUDIO INFORMATION

You've probably heard of the latest OctaMED product: OctaMED Soundstudio. Although my esteemed colleague John Kennedy produced an excellent feature on this recently, you may still be gagging for more information on this superb product. Check out the following two URLs to see if they can help:

http://www.cucug.org/ar/ar407_Sections/news.3.HTML

http://www.cucug.org/ar/ar408_Sections/news.8.HTML

AMIGA MUSICIANS

There are quite a few well known musicians using the Amiga – both for chart type music and for producing music for games. One of the best known is Allister Brimble, and you can check out his home page at this URL:

OCTAMED HOME PAGE

There is now an official UK based homepage for Octamed users. It's URL is: <http://www.octamed.co.uk/>

Toijo Kinnunen, the author of OctaMED, maintains a FAQ page concerning the program at: <http://stekt.oulu.fi/~kinnunen/omfaq.html>



If you use any version of OctaMED then it would probably be a good idea for you to check out the official homepage.



Even if you're not an Allister Brimble fan, his homepage is still a very interesting site.

http://ourworld.compuserve.com/homepages/allister_brimble/

There is a "softography" listing the software projects to which Allister has contributed, along with several links to sites that have some of his MOD files available for you to download.

RECORD LABELS

Sony's site is extremely well presented, but due to the highly graphical nature of the interface, it can be a tad slow on anything but a 28k link. If you're looking for any artist currently in the Sony stable it's probably worth the wait. As well as obviously having information concerning the actual records that Sony have on release, you can find out back catalogue information and biographical information concerning the artists you are interested in. Check out the Sony Music homepage at: <http://www.music.sony.com/Music/MusicIndex.html>

If you're any form of musician using the Net, you owe it to yourself to check out the Res Rocket Surfer page - who knows where it might lead.



If you want to see a professional looking web site, then you could do a lot worse than Sony Music's or Island's homepage.



Island Records are obviously a much smaller concern than Sony (especially when compared to the overall Sony entity), but their Web site is every bit as well turned out. Again the graphics oriented nature of this site can mean that it appears to take forever to download - but once you have the main graphic images downloaded, moving around the site is fast enough to be useable. The site is set out in the form of a virtual record shop, and is great for demonstrating the Internet to those who haven't seen it before and who have dismissed it as an awkward to use system for nerds. Island Records home page is at: <http://www.island.co.uk/>

Of course - Sony and Island are only examples here - just about every record label in existence has some web presence or other - Yahoo's list of labels alone now has over 900 sites.

RESOURCES FOR MUSICIANS

In addition to the sites dedicated to specific music software systems such as *OctaMED*, there are sites that are aimed at musicians of all types - aiming to provide information services as well as areas where musicians can gather. Some of these sites have also tried to actually bring musicians together from all over the world to use the Internet as a means of producing new music. One of the best and most well known of this type

of site is Res Rocket Surfer - a sort of Internet club for musicians.

Res Rocket Surfer has already been responsible for getting together many different types of musicians from all over the world and has even been a focal point for a number of live "jamming" sessions across the Internet involving musicians from all around the globe. If this sounds like the sort of thing that you would be interested in getting involved with, check out their homepage at:

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

Another useful site for musicians and those interested in musical instruments and equipment is Harmony Central.

<http://www.harmony-central.com/>

Also of interest to musicians (and indeed for those just interested in listening to music rather than making it) might be the Music & Audio Connection. This site is useful enough for me to let them get away with their obvious Alanis Morissette bias.

<http://www.vaxxine.com/music/>

LEFT: If you're interested in musical instruments and equipment, then Harmony Central is the site for you.

BELOW: The Music and Audio Connection is of interest to both musicians and music lovers alike.



MY OWN FAVOURITE

I'm going to finish up here by being slightly self-indulgent with a plug for my own favourite music web site. The Breaks page is for those with an interest in any form of hardcore, Jungle, Breakbeat and Drum'n'Bass music. If this is your cup of tea, check it out at: <http://www.breaks.com/>



Whatever your musical preference - hardcore, Jungle, or breakbeat - the Breaks web page is an unmissable resource.

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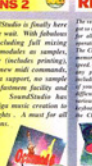
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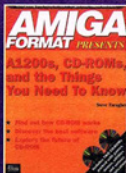


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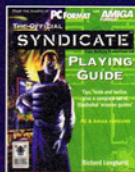
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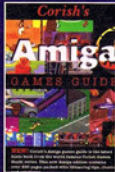
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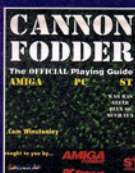
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Blizzard and Cyberstorm products use MOTOROLA 68060 series processors. They use WEIBER for electrical timing specification (and does this Motorola). They are present for possible electrical timing problems. So, when you fit a 68060 CPU, for example, they exactly what you get, i.e., a 68060. (It is even a 68060 CPU, checked by SMDs look for the MOTOROLA trademark logo - your guarantee of our commitment to quality and reliability - BEWARE of "cloned" CPUs).

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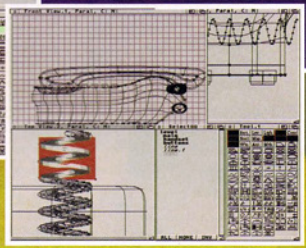
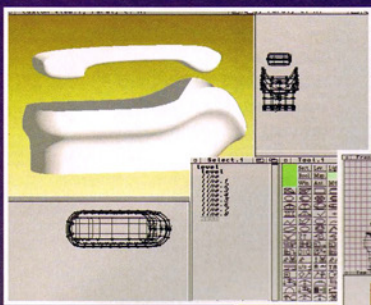
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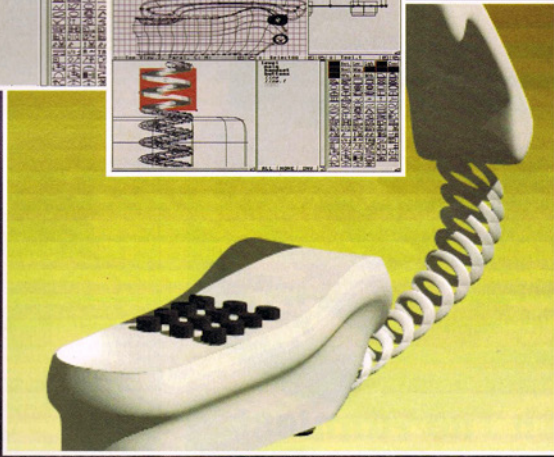
What the Magazines think...

Amiga Shopper 93% STAR BUY "...the Blizzard 1260 is destined to become the ultimate subject of desire for A1200 owners".
 Amiga Computing 92% BLUE CHIP "...after the fastest Amiga in the World, get this board".
 Amiga Forum "...Slide on the fastest A1200 in the World" - 95% GOLD Rating

4F CREATIVE



Graeme used b-splines to mould the curves on this smooth telephone. Find out how to do it on... page 92



AMIGA FORMAT BREEDING CLEVER



Nick Veitch

I am pleased that we've had such a response to our *AB3D II* tutorial. As anyone who has tried to use the game editors knows, it can be a bit tough to get to grips with, but after this month's installment you should have loads of cunning levels filled with all manner of terrible aliens.

It is also surely the beginning of a new epoch, as John Kennedy's *Blitz* tutorial finally produces a program that can actually "browse" an HTML document. Blimey. Please remember though, send any ideas for new tutorials that you may have to: Amiga Format, Tutorials, 30 Monmouth Street, Bath, BA1 2BW.

TUTORIALS

- 87 MULTIMEDIA TUTORIAL**
Ben Vost looks at some more ideas for graphics. Remember, if you get the CD you'll find some useful images and palettes included on there.
- 90 AB3D II TUTORIAL**
If you read last month's tutorial you should have created some sort of level. All you need now is some things to put in it.
- 92 REAL 3D2**
The b-spline tools in *Real 3D2* are ideal for creating smooth surfaces and this month Graeme Sandiford has a go at modelling a telephone.
- 94 OCTAMED TUTORIAL**
Darren Irvine continues with his guide to getting the most out of *OctaMED* - the Amiga's favourite music software.
- 96 BLITZ TUTORIAL**
John Kennedy promises that after you've completed stage nine of this tutorial you should be able to browse through some of your own HTML documents.



It's Bath Time

In the second month of this mammoth multimedia tutorial, Ben Vost continues on a graphical theme.



Bath's Theatre Royal – an important site in our project.

Adding 3D elements to your production can be an easy way of making the whole thing look more professional – as long as certain rules are followed. Because of the vast quantity of work that a production of this nature can entail, you should keep a careful eye on your time budget. If you're anything like me, you'll almost certainly get stuck on an idea and want it to work exactly the way you visualised it in your head, and you'll end up spending hours on something that should involve no more than a few minutes of your time.

As an example, I quite liked the idea that we should create the map for our project using *Lightwave* and have the important places in Bath modelled onto a 2D map of the city. This, of course, is completely out of the question when working to a deadline,

Bath's Victoria Park will help to add a splash of colour to our presentations. It's a good idea to look out for vibrant colour schemes to help your application.

Real 3D

Real 3D is an engineer's dream. It has particle physics, gravity and other such physical forces built in, all you have to do is work out how to use them. Real3D is another tough-to-get-into program, but the effort you make is worth your while. Real 3D2 was on AFCD1, Issue 85.

Strengths: Unparalleled list of tools and nice renders.

Weaknesses: A learning curve as steep as K2, expensive.

CONTENTS

Chapter 1: Intro – First steps and sorting out the graphics

CHAPTER 2: Graphical glory – More on the visual aspects

Chapter 3: Moving pictures – Animation and Video

Chapter 4: Sounds great – Using sound

Chapter 5: SFX – Sprucing up with digital video effects

Chapter 6: Incorporation – Putting it all together

Chapter 7: Finale – The finishing touches

and, even if there were time, is almost certainly inappropriate for this project. After all, the likelihood is that these buildings will be about the same size on screen as a Monopoly house and it would be better for the viewer if they were iconic rather than a tiny blurry mess of multicoloured pixels.

3D elements can also spruce up the text areas of your project, not just the areas designated as being for graphics. For instance, if you have seen the web you'll be familiar with things like the little coloured balls used as bullets in lists, even rotating 3D elements courtesy of animated GIF files can be used, like the rotating film which can be seen on the Internet movie database. All these small touches help to make your production look a little more polished.

Obviously, thanks to the wide range of 3D programs out there, there isn't the space to give you tutorials on all the aspects of creating 3D gadgets, but they are, for the most part, simple little things that you should have no problem creating for yourself. However, if you

are intending creating a library of these gizmos to use on all your pages you should make sure that either you stick to the same background picture for all your pages, or that you render the blobs without any anti-aliasing.

AVOIDING TROUBLE

The reason for this is that anti-aliasing relies on blending between foreground and background colours and so your foreground will look terrible on any colour other than the background that was used when the anti-aliasing operation took place. Phew! Long-winded, I know, but I think you get the picture. You will also have something of a problem if your elements require resizing afterwards because programs like *ADP* will use the background colour when interpolating to make the image smaller. This means that you end up with a smaller, but anti-aliased image once more. The best thing to do if you really need your gadgets resized is place the full-sized versions (that haven't

Continued overleaf →





CHAPTER TWO

3D PACKAGES

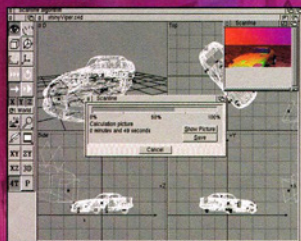
XiPaint4

I know it isn't really a 3D package, but it does have the rather useful ability to render simple 3D shapes and it will cost a damn sight less than any of the other true 3D packages on the market. Contact GTI on 0049 6171 85937.

Strengths: Cheap, cheap, cheap

Weaknesses: Only simple shapes, nothing sophisticated here. XiPaint's unfriendly interface and speed.

Cinema4D



Cheapish, easy to use 3D package from Germany. This one is a fully-blown piece of rendering software with the ability to create complex forms and texture them. Contact HiSoft on 01525 718181.

Strengths: Easy to get into, quick, nice looking pictures.

Weaknesses: Not much good for fonts (it comes with two and has no postscript interpreter).

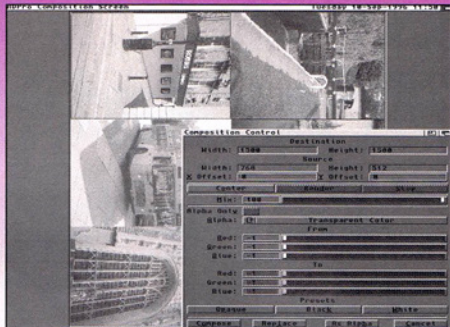
Imagine



You should be able to pick this one up for about £25 on *AmiNet* Set 3, so it's one of the cheapest of the bunch and yet has some of the most powerful tools. The user interface is a bit of a nightmare and the learning curve is very steep, but the results are worth it.

Strengths: All that power for just a few quid - it's no wonder that *Imagine* is the Amiga's most popular rendering package, great procedural textures.

Weaknesses: *Imagine*'s user interface is still very poor and most users these days don't have a full manual (because they got it on a Coverdisk or CD compilation).



The composition tool that you will find in the image processing program *AdPro*, is ideal for creating a compromise colour palette that will be suitable for use with all of your images.

been anti-aliased) on the colour background you will be using, and then resize them. This will still mean you end up with anti-aliased images, but at least they will be anti-aliased to the right background colour.

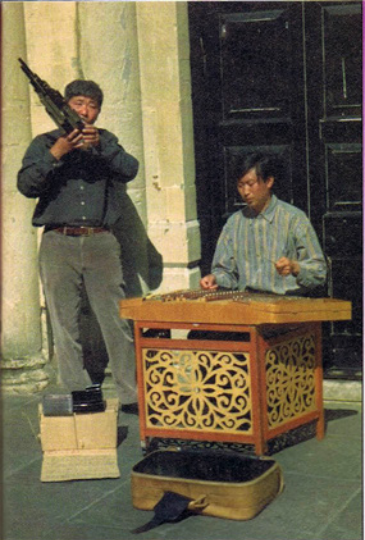
I talked earlier about 3D animation elements on the web, but these are a little harder to implement in an Amiga multimedia epic. Animated GIFs are almost certainly going to be out of the question (I can't think of a single Amiga program, other than web browsers, that will load and display a GIF anim), but animbrushes are supported by *CanDo* as a screen element. Of course, if at some stage you intend taking your production onto the web, then GIF anims are all you'll be able to use.

But there's more to discuss if you are going to use 3D gadgets for bullets or buttons (or even 2D ones). One of the problems of using the Amiga as your multimedia platform is that there is little standardisation between machines when it comes to graphics. American users miss out on 56 or 112 lines on the screen, ECS owners can only display 4096 colours in Lo-Res and 16 in Hi-Res, AGA owners can't display 24-bit images without lowering their quality. The most important thing to bear in mind is the number of colours you will be using for your project since that will affect the most users. Our project is probably going to be of interest mainly to UK users, so we'll make it PAL.

But do we want to restrict ourselves to Lo-Res screens just so that ECS users



This was the fourth photo I took of Victoria Park gates in an attempt to get one free from clutter. Unfortunately that car shot into the frame just as I was hitting the button.



can at least have a crack at the colour whip? There's a lot of information to put together, so I think not. The project needs to be in Hi-Res which means 16-colours for ECS users, but there is a way out for those of them that have a big box machine. We won't use HAM8 – not just because of the fringing problems and so on – because you can't display it on a graphics card. This means that we will be using a 640 x 480 screen (which will even suit American users with a multisync monitor) in 256-colours. Our problem is that we only have 256-colours to play with on a screen at a time. If our pictures of Bath are reduced to 256 colours then we will have to remap our buttons accordingly which probably won't look very nice.

One solution is a compromise using a fixed colour palette for the whole project, which certainly makes life a lot

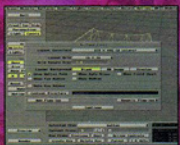
These Chinese musicians will also turn up later in the tutorial when they add their music to our project.

Lightwave

If *Imagine* is the Amiga's most popular rendering package, *Lightwave* is its most famous. A superb interface and excellent features mean that *Lightwave* is suitable for almost any job you throw at it. In case you didn't know *Lightwave* is used for all the CG work on TV's hit SF show *Babylon 5*. Contact Premier Vision on 0171 7217050.

Strengths: Excellent user interface and tools.

Weaknesses: Its price and hardware requirements are out of most Amiga users' reach.



easier. There's one in the *In_the_Mag/Multimedia* drawer taken from *Personal Paint* that you can use. This is quite a nice palette since it keeps the first four colours as standard Amiga Workbench grey, black, white and blue, and yet manages to have quite a range. I've tested some of the images from the PhotoCD shots that we put on *AFCD5* and, while they're not as nice as the 24-bit originals, they don't look too bad, although the colour is a bit washed out compared to a computed palette.

For our particular project it might be better if we were to make a custom palette, especially so that we can capture the tone and hue of the Bath stone that most of the buildings are made from. We can do this in one of two ways. The first way is to use a thumbnail program to generate a 256-colour index. The problem with this is that the images always tend to be, thumbnails, ie. too small for much detail and not very colour accurate.

The second way is to make yourself a collage of a few pictures as large as you can manage with memory constraints and take the palette from this collage. This method is going to need a very careful eye to pick out a good mix of pictures that will provide you with the most varied colour information so that you can achieve a good compromise. Have a look at the large picture in the *In_the_Mag/Multimedia* directory and use its palette for converting some of the other images on the disc to see if you think I've done a good job of choosing my pictures.

IMAGE RANKING

The last way, and probably the least satisfactory, is to render your images down to a custom 256-colour palette in order of importance. This means that you will need to lay down your most important image first, usually the big picture graphic, and then your bullets, buttons and so on. The incidental gadgets will be forced to use colours from the main palette of the image and so will almost certainly change their

colour throughout your application, but it will mean that your main images are as faithful to the original 24-bit versions as is possible. Which method you choose will depend on your subject matter and as such we can offer little advice, but any one of these methods will work with as little effort as possible.

Well, that's about it for the time being. Next month we will be looking at moving pictures once more, but this time we'll be concentrating on them as a more central concept to the project. See you then for some advice on digitised video, intro anims and titles. ☺

Perfect Pictures

In order to discover the best sources for photographic techniques, we visited the Royal Photographic Society and asked them for their recommendations:

The Photographer's Handbook 3rd edition by John Hedgecoe Published by Ebury Press ISBN 0-09-175363-5 Price £17.99

Complete Guide to Photography by John Hedgecoe Published by Collins and Brown ISBN 1-85585-000-1 Price £17.99

For a more technically-oriented guide to photography students:

Basic Photography 5th Edition by Michael Langford Published by Focal Press ISBN 0-240-51257-x Price £18.99

Advanced Photography 5th Edition by Michael Langford Published by Focal Press ISBN 0-240-51088-7 Price £25.00

If you wish to contact the Royal Photographic Society with a view to becoming a member or ordering these books if you have trouble getting them elsewhere, then you may email them at: info@rpsbath.demon.co.uk or write to them at: The membership department, The Royal Photographic Society, The Octagon, Millson St, Bath BA1 1DN.

MISCELLANEOUS 3D TOOLS

Forge

An ideal adjunct to *Imagine*, and even the other 3D packages, *Forge* creates seamless texture maps from the *Essence* series of procedural textures for *Imagine*. You can use the textures as with *Imagine*, but for other packages you need to create bitmap maps to map onto your objects. Contact Anti Gravity Workshop on 001 310 3936650.

WaveMaker

An automated scene generator for *Lightwave*, it takes a set of elements and a logo and makes them into a professional-looking logo ident. Contact as above.

Interchange Plus

If you are going to get a 3D package it is almost certain that you won't just find models in the format you want and need, but also in a whole bunch of other formats. *Interchange* translates object formats so you'll always have just the right model at your fingertips. Contact as above.



Alien Breed 3D

THE KILLING GROUNDS

You've installed the editors, installed the (ahem) editor patch, designed a quick test level and now you want more. Where are the pick-ups? Where is the water, piped in from Betelgeuse Seven at enormous expense?

First of all, water, because it's so simple. Load in your level and click on the 'water height' icon. Select a zone with the right mouse button and you will see the height of the floor, and the height of the water in that zone will be copied into the clipboard and displayed at the bottom of the screen. The water height is initially 256, well BELOW (remember, the convention is that positive means DOWNWARDS) the level of the floor. Now you can either press 'w' and type a water height into the clipboard, or use the '+' and '-' keys to change the value (SHIFT increases the rate of change). To paste the new water height into the level, click on the zones you want to put the new water height into with the left mouse button. Simple eh? Please note that, although you CAN put different water heights in adjacent zones, it will look very strange. Try it and see, if you want. Unfortunately you can't animate the level of the water because the water height animation icon doesn't work. It might do in the future, but unfortunately there was insufficient time to implement the feature fully in the game.

Objects

There are several types of object in the game, including activatable, collectable, destructible and purely decorative types. Each type has some different parameters, which are all fairly self-explanatory, but they also have a lot in common, and it is these common elements which I will concentrate on today.

First of all, each type of object can be one of the following graphical types:

- Bitmap
- Vector
- Glare/Shadow

NOTE:

The 256obj program takes a 32-colour IFF picture and converts it into a single strip of graphics, which is framewidth x numframes in length and framheight in height. The values you supply for framewidth and framheight CAN then be extracted by the gamelinker to define the frames of animation within the strip, but you don't HAVE to.

For example, I drew all the ammo and medipack graphics on a single screen. Since they were all shapes and sizes, ranging from 16x16 to 64x32 to 32x64, it would have been a waste of memory to allocate them each a 64x64 space. Instead, I fitted them all into a single



A selection of alien types that will fill your custom-made levels with fear.

A **BITMAP** object is the simplest graphical type, drawn in Dpaint or Brilliance and imported into the game via the '256OBJ' and 'COMPACTOBJ' programs.

A **VECTOR** object is usually the nicest looking option, but requires the design of a three-dimensional object complete with texture maps. This design procedure is worthy of a separate tutorial of its own, and we really don't have the space here to do it justice.

A **GLARE/SHADOW** object is drawn like a bitmap object, but in a special way. You draw a 32-colour image, but the colours of the image aren't used. Instead, the colour index (ie: 0-31) is used to either brighten (glare), darken (shadow) or leave unchanged the pixels behind the object:

Colour 0: Leave background unchanged

Colours 1-16: Brighten background pixels (1=very bright, 16=not very bright)

Colours 17-31: Darken background pixels (17=slight shadow, 31=very dark shadow)

I suggest setting up a suitable palette to draw your picture in, say colour

0=black, colours 1-16=white-dark grey, colours 17-31=dark red-bright red.

REMEMBER, this palette has NO EFFECT on what the object looks like in the game, it is strictly for your own reference purposes. Glare/shadow objects are very handy for things like lights in the roof or floor, and can be used by aliens as auxiliary objects, allowing for effects like the muzzle flash of their weapons or the big searchlights on the red guards.

Assuming you are drawing either a bitmap or a glare/shadow object, load in the graphics package of your choice and open a 32-colour screen. Now, decide on what size your object will be and draw a rectangle in the top left of the screen of the appropriate size. For things like ammo clips and medipacks, a size of 32x32 is good. Next, draw your object. It could be a medikit, or an ammo clip, or whatever you want. Done? Okay. Save it out and quit the art package. Open a shell and go into the below 'abs3' directory. Type '256obj'. You will be asked for a filename: select the file you just saved. You will then be asked for the width of the screen you drew the picture on (probably 320), the

320x64 pixel 'bar' of graphics, then used 256obj to convert them, telling it to convert a single 320x64 pixel 'frame'. I could then, in the game linker, individually specify the coordinates and size of ACTUAL animation frames within the file.

On the other hand, since all the frames for, say, the guard alien were 80x80, I arranged them each in their own 80x80 box on the screen and told 256obj to convert 20-odd frames, each of which was 80x80.

In the game linker, I could then use the 'generate frames from graphic data' button to instantly define all the frames of animation in the strip, rather than doing them all by hand.

O: The number of the anim line in this script
GF: The number of the graphic file this frame of animation will be drawn from. Click and select the one you've just loaded.
FR: The frame number to be drawn from within the above graphic file.
 Click with the left button to type a number (REMEMBER TO ADD 1) or SW: Scaled width of image (for nice results, try the same as the horizontal res of the graphic you drew, eg 32.
SH: Scaled height. Same kind of thing as above.
VO: Vertical Offset. Objects are placed with their 'centres' resting on the floor or ceiling depending on your preference (see above). With a vertical offset of zero, the graphic will ALSO be centred on that point, and will appear to be stuck half way into the floor/ceiling. This is obviously not desirable, so use this value to push the object up or down into the room. If the object's scaled height is, say, 32, a value of -32 will nicely position the object so it appears to rest on the ground.
NF: Next frame, or rather 'line of animation script' to go to. This might not seem terribly useful, but it comes in very handy sometimes.



If you see this character coming towards you like this then you know that you're in trouble.

number of frames of animation (one, if you only drew one picture), and the width and height of the frames (probably 32x32).

Squash It

Okay, so you've generated and saved the file in 256obj. One last thing to do: compress the data with COMPACTOBJ. Why? Because *Alien Breed 3D* and *T&G* both use real-time graphic decompression techniques, which was why they managed to squeeze all the graphics for all the aliens into just 2Mb of memory, unlike some other games which could only have one or two different types of enemy in each level.

Compactobj just prompts for the name of a file created by 256obj (256obj saves files with a '.dat' extension, so load the '.dat' file), thinks for a while and announces how much it managed to compress the data by. This can vary quite a lot (for example, it saved over 75% of the memory used by the little mutant guards in *AB3D I*, but nothing like that much for the pickups), but is usually between 40% and 70%.

Once that is done, load in the game linker and select 'SET OBJECT GFX FRAMES' from the 'GRAPHICS' sub menu. Select an unused slot with the LEFT mouse button, and then select either the PTR or WAD file which was saved out by the COMPACTOBJ program. When you return to the list of object GFX filenames, click on the one you've just loaded, with the RIGHT mouse button this time. You will see a strip containing the graphics you drew (in a weird wrong palette if you drew a glare/shadow picture) and some buttons at the bottom. If you were sensible and converted the graphics with the correct frame size, you can simply click on 'Generate frames from Graphic data' and the work will be done for you. If not, type in the top and left edge coordinates and the width and height of the frame (something like 0,0,32,32).

You have now successfully imported a graphic image! In a moment we will use it, but FIRST a very VERY important 'bug':

You will see that you have defined frame number '0' during the procedure above. Due to a mistake on my part, you must refer to this as frame '1' when defining animation sequences for objects.

Frame '1' is referred to as Frame '2' etc. The reason for this is that in the alien animation you can enter NEGATIVE numbers to indicate

that a frame is to be drawn on the screen flipped horizontally, and there is no such number as '-0'.

Assuming you want a collectable object type, click on the object behaviour to obtain that option. Define the graphic type to be bitmap or glare/shadow depending on what you drew. Click on the two 'define given' buttons and select the amount of ammo, guns and health supplied by the object.

Click on 'Collision cylinder radius' and set it to about 100. Click on 'Collision cylinder height' and set it to about 200. Make sure it is positioned vertically relative to the FLOOR. You probably don't want it locked to the nearest wall, so switch that option off. If you've got a sound effect loaded, click on 'collection sound effect' and select it.

Last, but not least, click on 'define default state animation'. This brings up a large and scary screen with a line of dubious looking numbers and letters at the top, which is where you define a 'script' for the animation of your



One of the very common robots in *Alien Breed 3D II*, still the rocket launcher you've got should see him off.

object. It's not all that complicated, though, so don't panic. See the boxout to see what the numbers mean.

If you want to have lots of different keys in your game, rather like I did (13 to be precise). You only have 30 objects to play with though, and wasting 13 of them on keys is a silly idea. So what do you do? Well, the solution is simple. Keys all behave the same, right? They all do the same thing and can be collected in the same way, so the only way they differ is in their appearance. So rather than having lots of similar objects, you simply define one 'passkey' object (or whatever). Draw all your different key graphics, convert and import them, then start defining your passkey 'animation script'. Define as many 'lines' of script as there are keys, selecting the appropriate GF, FN, SW and SH values for each one, and then this is the clever bit, change the 'NF' value on each line TO POINT AT ITSELF. So there are now several independent 'loops' of animation in the script, each displaying a different key graphic. Now when you come to place the key in the level editor, you will notice a 'start frame' value which you can set to whatever line of the script you want. When the game is run the key will start on that animation script line, and the NF value ensures it stays there. Presto! You have a single object which can look like many different things, all of which behave the same way!

DEFINING OBJECTS

Time to define an object to use these graphics. Go to 'OBJECTS/DEFINE OBJECT STATS' in the edit menu and click on an empty space with the LEFT mouse button. Type a name for your object. When you've pressed RETURN, click on the name with the RIGHT mouse button. You will be shown a list of options:

- BEHAVIOUR OF OBJECT
- GRAPHIC TYPE
- * DEACTIVATE AFTER (50ths/sec, -1=Never)
- + NUMBER OF HIT POINTS
- + EXPLOSIVE POTENTIAL
- IMPASSABLE IN DEFAULT STATE (Y/N)
- DEFINE DEFAULT STATE ANIMATION
- # DEFINE ACTIVE/DESTROYED ANIMATION
- @ Upon collection/activation, give player-
- DEFINE GUNS/DETPACK/SHIELD GIVEN
- @ DEFINE AMMO/FUEL GIVEN
- Collision Cylinder Radius
- Collision Cylinder Height
- Position Vertically Relative to
- Lock to nearest wall?

KEY:

- * = Only visible for activatable objects
- + = Only visible for destructible objects
- = Only visible for destructible/Decoration objects
- # = Not visible for decoration objects
- @ = Only visible for collectable/activatable objects

Congratulations! You have just designed a new object which can be placed anywhere you want in your levels. The complexities of vector objects and alien design await...

Real 3D Version 2

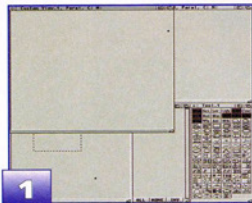
We've moved on from wildlife to some rather more familiar domestic instruments. This month Graeme's been studying the telephone.

Welcome to our third tutorial on the exceedingly powerful *Real 3D 2.5*. This month, as with last month, we will be using b-splines to create an object. This time it's not to create an organic shape like a flower, rather it's a smooth artificial object – namely, my phone.

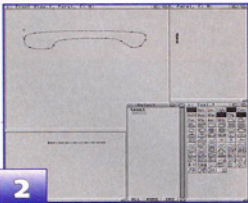
It's only fair to warn you that working with splines and spline patches can be extremely demanding on your memory and especially your processor. I'm using an A1200 with: 2Gb HD, 24Mb of RAM, a Blizzard 1260 and nice big Amiga 1764 monitor and even then things can grind to a standstill.

The smooth surface of the phone we're building will be achieved using several spline-based tools. One of them has a slight glitch – when you're using Build from Curves you'll find the patch it makes doesn't extend to the edge of the curves, but that's easily overcome.

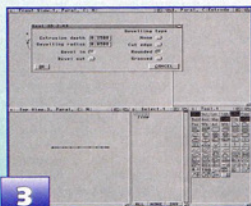
PHONE HOME



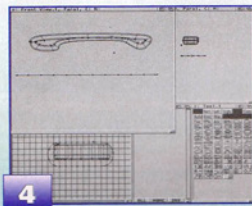
1 First of all we need to set up an environment that meets our current needs. To do this we need to increase the size of either the front or side view window because we'll be modelling a roughly oblong shape.



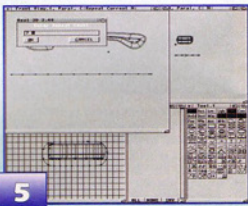
2 Next, click on the icon labelled Ctrl to bring up the control tools and select the squiggly circle icon. Draw a profile of a telephone hand-set similar to the one in the picture – press the right mouse button when you are finished.



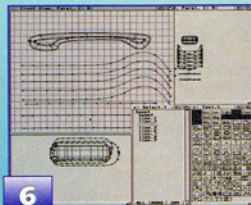
3 Select the line and go to the menu Create/Freeform/Extrude. Enter an extrusion depth of 0.25, beveling radius of 0.05 and check Bevel in and Rounded. If the proportion looks wrong press <right-Amiga>-<u> and try again.



4 Delete the original line and go to the Top view, select the menu View/Grid/Visible and View/Grid/Snap To. Select the closed curve tool again (the squiggly circle) and draw a straight-sided oval like the one in the picture.



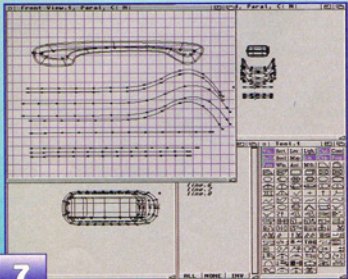
5 Switch to the Front view and create a grid. Select the menu Macro/Record, select and duplicate the line. Move the duplicate a little way down the screen, click on Macro/Record again repeat the Create macro 7 times.

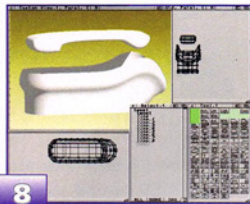


6 Select the first five lines and go to the menu Modify/Bendp/Move 2D. The first two clicks define the area to be affected and the third is just for positioning. Bend the lines upward and then repeat the process and bend them down.

A Select the remaining five lines individually and in turn and use the Move and Stretch modify tools, move and resize them so that they form a straight line on the left side and a backwards sloping line on the right.

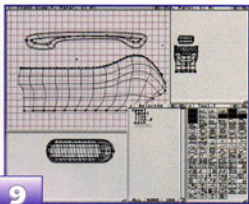
B Make sure the curves resemble those in the image. The rank of straight lines should be "stepped" in to the right of the curved ones above. The bottom and top lines should be closer than the others because of a program limitation.





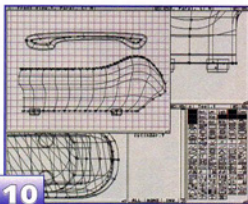
8

Now, as with the handset, we need to make the object solid by creating a mesh. To do this we'll use the tool Build from Curves (the 3 icon with wiggly lines or the menu Create/Build from Curves) - note the mesh does not extend to the end lines.



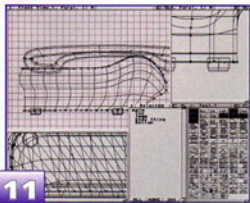
9

To be tidy delete the lines as they are not needed - except the lines one from the bottom and one from the top. Select the top one, select the menu Modify/Freeform/Reparametrize and then Create/Freeform/Skin Curve.



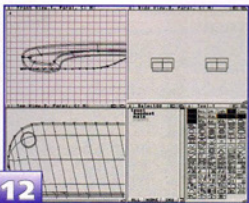
10

Select the bottom curve and Skin that - there's no need to use Reparametrize as the bottom is flat. Before I forget create four feet for it to stand on, with the Cylinder tool and if you're a perfectionist create some little black pads.



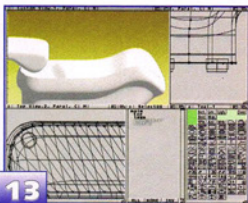
11

Now's a good time to give objects a sensible name and organise them in layers. Resize the handset or base so they fit together and position them as if you were hanging up, so you can see where the recess for the earpiece is needed.



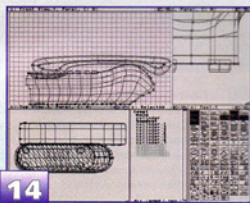
12

Save your project (it's easy to go wrong in this bit) and cut out any objects that will obscure your view of the top mesh. Reparametrize the mesh in the V direction. Create a group of the points the same shape as the earpiece.



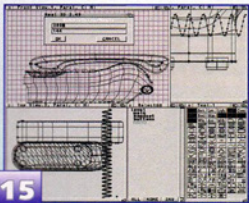
13

Move the group down to create a depression in the surface for the earpiece to rest in. Paste the objects that you cut out - if you didn't forget. Copy something else. Have a quick tidy up to make sure everything fits.



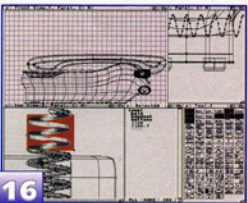
14

Now for the buttons. Use the Cylinder tool and create one slightly oval disk and triplicate it and repeat these three buttons four times (making good use of the macros of course). Position them on the flat part of the base.



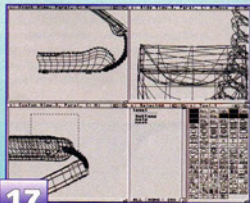
15

If you are working with a relatively small amount of RAM you might want to stop here. Otherwise, select the spiral control icon or the menu Create/Controls/B Spline Helix. Enter these values - 288 and 144 - and draw a circle.



16

Draw a small circle and stretch into an oval. Select the circle and the line, select the menu Create/Freeform/Coplanar. This will create a solid cable to connect the handset with the phone's base, but it's a bit straight.



17

Kill the line and circle, use Modify/Bend Global/Move 3D and Bend EndP/Move 3D bend the cord into shape. If you like you can also add some numbers to the buttons and remember these techniques can be used to create many other objects.

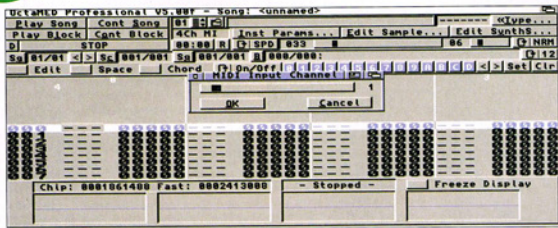


OctaMED

Tutorial

Part 4

This month **Darren Irvine** explains how *OctaMED* can be used to control external sound modules and drum machines in addition to the Amiga's internal samples.



This series, so far, has looked at how *OctaMED* can be used to control the Amiga's samples and how easy it is to create a song. But *OctaMED* can be used for much more than just playing the Amiga's sound channels, by virtue of its fairly comprehensive MIDI support.

OctaMED allows you to control a whole host of outboard synthesizers, drum machines and effects boxes – anything in fact that has a MIDI port. MIDI also allows you to connect more

In order to receive MIDI data into *OctaMED*, you must both turn on MIDI Active, Input Active, and select a channel number from the 'MIDI' pull down menu.

than one Amiga together, both running *OctaMED*, enabling you to then synch the two versions of the program and play eight channels of samples at maximum quality.

The first thing to do is to physically wire things up, and fairly obviously you'll need a MIDI adaptor for your Amiga (which plugs into the serial port). Make sure that you take the MIDI Out from one piece of kit to the MIDI In of another and vice versa. If you have more than two items, chain the MIDI connections from the Out on the Amiga, to the In on the first synth or whatever. Then make a connection from the MIDI Thru of the synth to the In of the next item, and so on.

GETTING STARTED

MIDI is only implemented in *OctaMED*'s standard 4-track mode, and if you have changed from this default mode, change back using the 'Set Options' choice from the 'Song' menu.

You'll also need to turn MIDI on from, strangely enough, the 'MIDI'

menu – select 'MIDI Active' (alternatively hold down Amiga + M). Now that you have turned MIDI in general on, you need to set up instruments for MIDI.

Playing synths and drum machines from *OctaMED* is done in a similar way to playing internal samples – in fact, there is no reason why an individual *OctaMED* instrument can't trigger both an internal sample and an external MIDI instrument.

Assuming you wish to set up an instrument for MIDI control only, simply create a blank instrument with no sample loaded. Click on the 'Inst Params' button, and you'll see a slider which will let you determine the MIDI channel that this instrument will transmit on. Note that it does require a bit of care to get all your instruments set up correctly, and it helps to give them names which contain the MIDI channel used.

Once you have an instrument set up for MIDI control, it is still used in tracks and songs exactly as before, meaning that you don't have to learn any new sequencing techniques to control other sound sources.

EXTERNAL KEYBOARDS

You may also decide that you want to be able to use an external music keyboard to enter notes into *OctaMED*. To do this, first select 'Input Active' from the 'MIDI' menu (or press Amiga + U). Next, select the 'Input Channel' option from the same menu, and choose a channel that you want to use – note that this must be the same channel as the 'MIDI Transmit' channel selected on your keyboard.

WHAT EXACTLY IS MIDI?

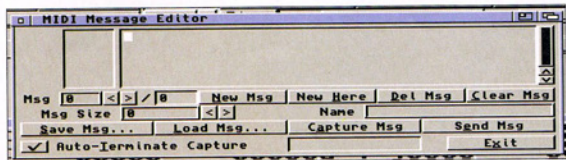
MIDI STANDS FOR: MUSICAL INSTRUMENT DIGITAL INTERFACE

Basically, MIDI is a way of connecting up all your synths, drum machines and computers so that they can all talk to each other, and play along in sync.

There are a lot of dedicated MIDI sequencing software packages available on a variety of platforms, but why shell out for one when you already have MIDI capability via *OctaMED*?

On the downside, most MIDI work on the Amiga requires an '020 or greater processor. Saying this though – standard A500 owners may be OK simply using the MIDI sync function or when just playing samples via MIDI.

You can use *OctaMED*'s MIDI message editor to send MIDI system exclusive information, or other data, to your sound modules.





JARGON

SAMPLE

The Amiga's internal sound system operates by playing back long strings of numbers which are a digitised representation of a sound - these strings are known as "samples".

TRACK

This is the basic unit of a song composed on OctaMED (hence the descriptor - "tracker").

BLOCK

A block is a group of up to 64 tracks, playing simultaneously.

SONG

A song is basically a

number of blocks strung together. A song need not be composed entirely of separate blocks.

MODULE

Although you can save song data on its own, and load the samples used in it separately, it is common to save both song and samples in one file - known as a "Module".

MIDI

Musical Instrument Digital Interface. A standard set in the 80s to allow musical instruments to communicate with one another and with computers.

option from the "MIDI" menu, which sends out a control to any other sequencers on your "MIDI network" telling them to start playing at the same time as the OctaMED is playing on your local machine.

Alternatively, you would select "Ext Sync" if you want OctaMED to be started by an external sequencer. Obviously if you have two Amigas both running OctaMED, select "Send Sync" (the master) on one and "Ext Sync" on the other (the slave).

SAMPLE PLAYER

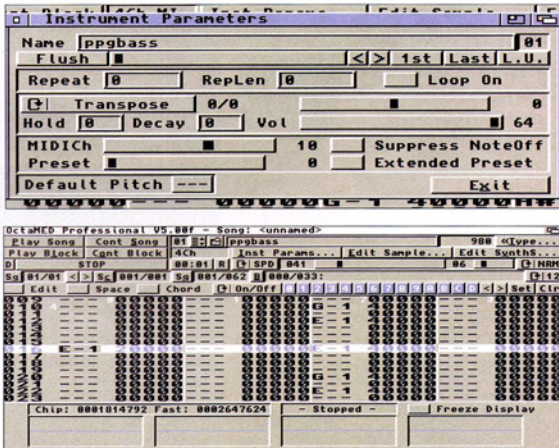
Yet another option available is to use OctaMED as a standalone sample-player controlled via MIDI. This entails setting up a number of samples on different MIDI channels, and then playing them remotely from a sequencer running on another computer.

If you have two Amiga's you can use this method to play samples on one

machine, and run a sequencer such as Bars'n' Pipes or Music-X on the other (both programs do in fact support the playback of internal samples, the results are variable and if you do happen to have another Amiga lying around, and a copy of OctaMED, then you will find that this will give you far superior results).

Next month we'll be concentrating on MIDI again, including taking a look at OctaMED's MIDI message editor (which you can use to send specific MIDI data to your various different sound modules). See you then.

BELOW: Setting an individual instrument up to work with MIDI is also extremely simple, using the Instrument Parameters window



Once you have select "Input Active", when OctaMED is in "Edit" mode, simply enter the notes you want from your external keyboard rather than having to remember which keys represent which note on the Amiga's own keyboard. Remember however, that you'll still have to use the spacebar to enter a rest.

Another option available on the "MIDI" menu is "Send out Input". This toggles whether or not OctaMED echoes MIDI data that it receives back out again. You would make use of this if you have a separate MIDI master keyboard and sound module, with the Amiga in between the two, so that notes played on the keyboard actually sound, rather than just being picked up by OctaMED.

If you're using a synthesiser, it's a good idea to turn this off, so that the notes you play are not played twice (once by the actual key you press, and then once by OctaMED sending the note back again).

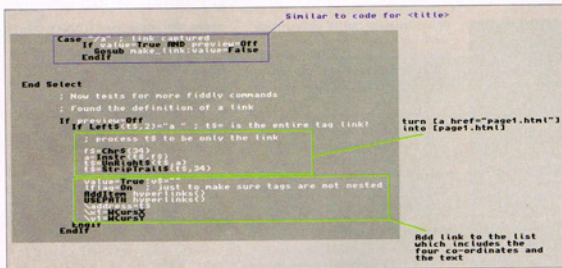
SEQUENCING SOFTWARE

You can also use OctaMED to control sequencing software running on other computers (whether or not they are Amigas). You can select the "Send Sync"

Once you've actually got MIDI set up and running, creating your songs using both internal Amiga samples and external instruments is extremely simple.

Blitz Tutorial

Gosh, things are starting to look promising with the Blitz Browser. John Kennedy has even added some useful code to handle links in this month's installment.



Finally, it's working! Yup, after this month's Blitz special you'll be able to start browsing through some of your own HTML documents.

MISSING LINK

We added code to check for the situation when the user clicks on a link, and as an exercise I suggested you deal with the case when the link text itself wraps over the line. This was a trickier than it appeared at first glance, and I apologise if you spent a long time trying to work it out.

The problem was that the text associated with the link, that is, the text between the <a href> and the tags was being printed by the standard process_text routine. This made it hard to intervene. The solution I adopted was to ensure that this special text was not printed at once, but stored away. Only when the tag was reached would the text be displayed by a special character-by-character routine. This routine would check to see if the text was about to wrap. If the text did wrap, a new link was added. This was repeated until all the text had been displayed.

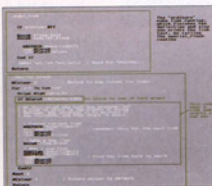
To include this into our listing involves altering quite a few locations. Firstly, I had to change the code which detects the <a> tags. Listing One shows the new, improved program section.

Then I had to rewrite the make_link routine and add the code necessary for displaying the link text and taking a new line. This was the easy part. When the text reaches the end of

Listing One: Shows how the necessary changes needed to be made to the code which detects the <a> tags.

Right: The make_link routine had to be rewritten to include the new code.

the line, we simply pretend the link has been terminated. However, when it starts on a new line underneath, we start a new link. We pass the link text



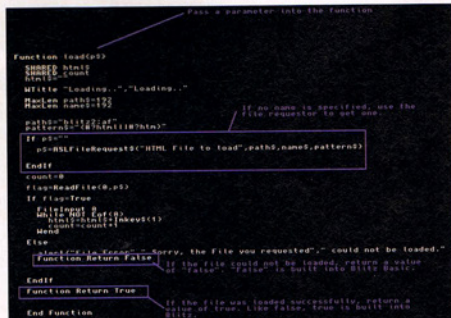
from the original link to the next to make sure both point to the same location. The special_flush routine always ends with a link in mid-definition, and the trailing link is always finished by the lines which follow gosub special_link in the make_link routine.

You'll notice that the text of the link is altered with Wcolour 1 and Wcolour 2 statements. You can change these if you wish: not only could you alter the colours, but instead you could draw a line or a box around the link text. Think of how AmigaGuide displays links in its documents.

LOAD UP

Now that we have fixed the bugs to do with adding links, it's time to get the links to actually do something. Let's start by using the links to load another document. For example, if there is a link which looks like:

 Click here for document 1
then when the user clicks on the link, the document entitled doc1.html will be loaded. This is how a Web browser works when it is operating in local



Listing Two: This code shows how a string is passed into a function.


```
Repeat
WTitle "Waiting","Waiting"

Select WaitEvent
Case $100 : Menu operation
    Select ItemHit
        Case 0: The Load option
            If Load()=True Then GOSUB process
        Case 1: The Save option
            : Some day
        Case 2: The About option
            : About : , Blitz Viewer", "Early alpha", " "
        Case 3: The Quit option
            Goto goodbye
    End Select
Case $200 : Close gadget selected
    Goto goodbye
Case $400 : Scroll bar clicked
    : VPropPot(0,1)*height
    : positionSuperlump 0,v,v
    Redraw 0,1
Case $5 : Mouse button
    GOSUB click
End Select
Forever
```

Listing Three: The revised code for the menu option - changing the instances when Load() is used.

used directly in an IF/THEN statement. This ability to return true/false values is a useful way to ensure that all is well in your programs. If all your major routines return a value which depends on whether they've worked, debugging your code becomes much simpler.

CLICK ME!

Finally we can move onto the Click routine. This is the code which detects when the mouse has been clicked over a link. We developed it last month, but now the /address variable has been processed to contain only the filename of the next document to load. This was achieved back in the very first program listing in this tutorial.

```
.click
: test to see if there is a link under the pointer
: when the user clicks the left mouse button

x:=HMouseX
y:=HMouseY+VPropPot(0,1)*height
ResetList hyperlinks()
While (NextItem(hyperlinks()) AND ($$="" )
USEPATH hyperlinks()
If (x>=x1 AND x<=x2) AND (y>=y1 AND y<=y2)
    $=address
EndIf
Wend
:If ($$<>"") Then NPrint "The link is ",$$
If ($$<>"") Then If Load($$)=True Then GOSUB process

Return
```

Old test code

New, clever loading routine

mode, that is, not connected to the Internet. This feature alone would suddenly make our browser very useful for reading though HTML documents stored on disk. Think of it as an AmigaGuide browser, but one which deals with HTML, instead.

The first step to adding support for loading new documents is to change the Load() routine. This was originally a Statement, that is, a block of Blitz Basic which can be called as a subroutine. Although it is possible to pass parameters to Statements, it is not possible to get return values. For this reason, the Load() Statement is rewritten as a Function.

Notice how a string is passed into the function. This is the filename of the document to load. If the filename is empty, then the standard file requestor is used. If the filename contains a name, the program attempts to load the file specified. Listing Two shows the necessary code.

Now we need to change the instances when Load() is used. So far there is only one: the menu option. Listing Three shows the revised code.

You can see how, as it has been turned into a Function, Load() can be

Listing Four shows the new code for loading documents.

Below: Listing Five shows two documents you can use to test your new program.

Page1.html

```
(title) My first page </title>
<H1>Page 1</H1>

<hr>

This is page one. Please select the pages you would like to see. <p>

<a href="blitz2:af/page2.html"> Page number 2 </a> <p>
<a href="page3.html"> Page number 3 </a> <p>
<a href="page4.html"> Page number 4 </a> <p>

Thank you. <p>

<hr>
</HTML>
```

```
(title) My second page </title>
<H1>Page 2</H1>

<hr>

This is page two. Please select the pages you would like to see. <p>

<a href="blitz2:af/page1.html"> Page number 1 </a> <p>
<a href="blitz2:af/page3.html"> Page number 3 </a> <p>
<a href="blitz2:af/page4.html"> Page number 4 </a> <p>

Thank you.

<hr>
</HTML>
```

Page2.html

Listing Four shows the new code for loading documents. Notice how once again the function aspect of Load() is exploited to make sure that nothing is sent to the process routine unless a new document has been successfully loaded.

If you want to test the program Listing Five shows two suitable HTML documents. You'll have to alter the links to point to exactly where the files are stored. At the moment I keep mine in Blitzraf/ and you'll need to take this into account for yourself.

SPECIAL THANKS

A special word of thanks to Andrew Markwell, who has written in with some hints and tips. Andrew is writing his own Blitz browser called "Agamemnon" and is unwilling to spill the beans on absolutely everything. However, he has included some useful pointers in his letter. I'll include the details on the Web site, where you will also find the full Blitz source code. The address is: <http://www.webzone1.co.uk/www/johnk/> so pay a visit - there are some other useful links there too.

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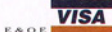
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Letter of the Month

SHOP WATCH

Why not start up a page in the magazine which lists computer retailers that sell Amiga software and/or hardware in the UK?

This page could be recommended by readers who frequent those shops and that would allow other readers to give those shops more support. AF could also produce a sticker or something similar to send to the retailer saying something like 'Amiga Format listed retailer' or such like. This would encourage the retailer to keep stocking Amiga products whilst he gets a free mention in your magazine.

Yourselves and other magazines are always bemoaning the lack of the Amiga products in the public perception. This would be one way for yourselves to help the Amiga community at very little cost.

To start the ball rolling here are a few shops I regularly visit in the Greater London area...

- HMV (Level 1), Oxford Street, London W1. Very good, and large range of software.
- HMV Trocadero, Piccadilly Circus, London W1. Reasonable range of software.
- Electronic Boutique, Oxford Street, London W1. Reasonable range of software.
- Computer World 2000, Walthamstow Market,

London E17. Reasonable range of software. Unfortunately, all of the Silica shops in London known to me hardly have any Amiga software/hardware in stock any more. Especially the one in Tottenham Court Road which, in it's heyday, had a whole floor devoted to Amiga stuff but now has less than the fingers on one hand. (Aren't Silica

Also, sadly the Virgin Megastore doesn't carry much Amiga software any more unless you want four shelves of SWOS 95/96 or three shelves of USM datadisk for 99p. Sad.

Finally, I would like to thank all at AF for such a great magazine in the three and a half years I have been buying it. I can honestly say I have yet to see a 'bad issue' - keep it up.

Michael Carrillo
London

Not a bad idea at all, and one that wins you a much prized AF sweatshirt. Anyone else wish to recommend Amiga outlets? We will soon be incorporating a new feature where we go off around the country, checking out independent retailers who stock Amiga products. There are quite a few of them out there, and you may be surprised to find there's one near you. If you run a shop and think you ought to be included, drop me a line.



ALL SPENT

In response to the letter 'Spending Spree' in the latest issue of the great *AE*, I'd like to comment on a couple of things. First of all, I agree with Mr Jones in that with a few upgrades, the Amiga can do everything a PC does, and better. Team 17's *Alien Breed 3D II* shows that. The last upgrade I bought

was a Zip drive, which set me back £200. I'm chuffed with it, but I'm not planning on buying, upgrades for a while for two reasons:

- 1) As a 15 year old (and we're just as important as older Amiga users), I don't get £20 spare a month, let alone every week. and,
2) Why should I get anything else until I know what the new Amiga is

The Zip drive holds 100Mb per cartridge and comes in very handy.

going to be? I would have sold my granny to get hold of a MindWalker, but it was scrapped. Okay, it may have looked a bit 'different', but it contained everything that I needed in a slick, futuristic design. Until I know for definite what will be in the next Amiga, and how much I will be expected to pay for it, I won't buy anything else. I've had my A1200 for three years, and an A600 for a year before that, and I've bought AF for all of those four years. I can safely say that I will support your magazine and of course the Amiga until the very end. It's a great machine with a confidence problem, and a definite decision needs to be made about a new Amiga very soon, so that people like me know that they are spending their money on something that will continue

for at least another four years which the Amiga can, if it's given the right attention.

As I said on my questionnaire, I urge Viscorp to release a powerful Amiga for under £800, advertise it sensibly and **STICK WITH IT!** If they do that, then the 'very end' shouldn't be for a long time to come.

Peter Jones
via email

P.S. *R3* demo was stunning and *FoundationED* inspiring! Keep up the good disks!

The Zip was a good choice, I'm sure you will be very happy with it, and you will be able to take it with you to a new Amiga when such a thing arrives. Many of our readers are also reticent to part with any more cash until they are sure about Viscorp's concrete plans for the platform, and we would certainly join you in asking them to clarify what exactly they intend to do.

ON THE EDGE

If any of you out there are thinking that the Amiga doesn't play a vital part in game development – think again. You only have to open the back pages of *Edge* to find loads of companies paying top wages to 2D artists who are good at *DPaint*, *DPaint*. Not *CorelDraw*, just good ol' *DPaint*. So come on you Amiga artists! Let's show the industry what you can do on the supposedly "dead" Amiga. (Which it will be if Viscorp don't do something soon)

FrostyCat
via email

P.S. Darren Irvine is the Gary Bushell of the Amiga Scene.

They should be writing in to us really. Interestingly, Psygnosis, and many other game developers, still use DPaint to develop graphics for their games, even though many of them no longer produce Amiga titles. If there are any readers out there with a yearning to create graphics for games, please get in touch with us.

Continued overleaf ➡

◀ I'm not sure whether your comments about Darren are meant to be a compliment, but I suspect not. I shan't tell him you said that as he may get upset.

CD SUCCESS

I finally bought a CD drive not long ago and was impressed by how good your two first cover CDs were. Hey, in your humble modesty you haven't mentioned a thing about at least three quarters of its contents! Did anybody know there were Wells, Doyle and Verne books typed in there? Or can you even imagine HOW MANY pics and anims there are?

As a matter of fact this may have been one of your smartest moves yet. Already three friends of mine have expressed their willingness to subscribe to your magazine in order to get those CDs, which they loved. I just hope your current CD version circulation is large enough to keep you from returning to the DD-only (yeeeks!) format.

Oh, yes! Congratulations on your newly completed abduction of Mr. Vost from Amiga Computing. Tell him that the fourth CD was very well put together and I was AMAZED to see that Tower Assault intro. Congratulations to your arty types (Linda?) as well, since I liked your last (4th) CD cover so much.

Now just do your readers a BIG favour and get that Scottish bloke back. Brine him with dog cookies or whatever if you must, but make sure you do it.

Fabio Goes
Rio de Janeiro, Brazil

P.S. I've spotted a Chelsea shirt – the one with the old C= Amiga logo – in a sportswear store near my apartment. Would you think my buying it would be a smart move? (I mean, they can't be as bad as Leeds, can they?)

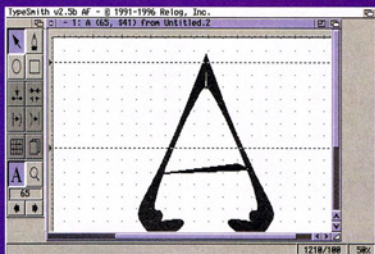
COVERDISK CRIME?

I have been an avid Amiga Format reader from issue seven, which coincided with my first Amiga purchase – a trusty A500. Since then I have upgraded, after finding someone had poured tea into the casing. I have been very pleased with my Amiga, and I try to encourage people to think likewise, instead of falling for the gimmicks found so often in the worlds of the console, PC and Mac. Until recently, I have also been very pleased with Amiga Format, but I feel let down in the quality of Coverdisks, and the rest of the magazine seems no better than my rival. I have not resubscribed, and do not intend to – I'll just read the Gamebusters section in the newsgroups, and only buy the mag if the Coverdisks warrant it.

On seeing the TypeSmith program on issue 87, I bought it, with the intention of using it with Wordworth. It has proven to be invaluable, and I thank you for it, but the other disks left me shocked. Two games I would not have even played back in my A500 days, released on your Coverdisk. They lasted about five minutes in my disk drive (and only that long because I was foolish enough to watch the 'slideshow' first), and I really don't need any more blank disks, but I suppose I'll have to format it.

There is a lot to be found on the CD if you are prepared to go looking for it, and don't worry, in spite of all the pain and anguish it causes us every month, we will be continuing to produce a CD version.

Thanks for all your comments, though I fear some of your appreciation is slightly misplaced. Sterling work that he has done on the CD, the credit for the excellent Tower Assault sequence must surely go to John Allardice, the man who created it.



The excellent TypeSmith from Soft Logik. It's far easier to find good serious programs to put on our Coverdisks than it is to find games software.

In your magazine, I have often found that the general view was that the Amiga needs all the good press it can muster, but I feel that your Coverdisks often do little to help the cause. I know you will probably try to fob me off by saying 'what you might consider of little interest may be very useful to someone else' (a quote from Letters issue 87), but they (although unquestionably only applying to about one 'person' in the Universe) are likely to be so young or mentally deficient that it was they that sabotaged my first Amiga with the tea incident!

Jack Bremer
Fulking, West Sussex

Well, I'm glad you enjoyed at least one of the disks. I'm very sorry that you didn't like the other disk. We included the games because they were a good example of what could be achieved with BPM's Reality software.

It's not as if we could have had a demo of some great new Quake beater or anything, because as you may have noticed, there aren't so many games being released on the Amiga at the moment.

Publishers are also becoming very reluctant to spend the extra time and money needed to create demos. However, if you would care to write one...

Also, Cathy is probably going to be a bit miffed that you are congratulating Linda for all the excellent work she did on the CD.

As for the notorious Scotsman – I think you misunderstand. It was us that had to offer a bung to Team 17 to take him in the first place. Basically we couldn't stand the smell of his Spicy Curry Pot Rice any longer.

The old C= emblazoned shirt is probably a good buy, it's a little piece of history, and at least Chelsea could play

in those days. I won't impart my thoughts on Leeds, as Mr Bradley might come over all feisty.

DEJA VU

In a popular multi-format magazine I was reading, I noticed the range of old arcade games that Namco are due to release shortly on the Playstations. Titles mentioned included Pacman, Joust, Galaxian and Defender. News like this always generates quite a bit of

The Gallery



ROOM ONE
Ian McNaughton
Ian is this month's lucky
winner of £50.

£50
winner



MONITORS DIRECT



The M1764 monitor is certainly an impressive bit of kit and if you can get it cheap it's a bargain.

Just a few comments about Graeme's review of the Amiga M1764 17" monitor. Nothing wrong with the review. I agree with everything mentioned. Regarding the conclusion though, I have the answer and at a very reasonable price.

I was quoted £500 + VAT, plus £10 + VAT for carriage total = £509.25. Being close enough I collected saving carriage costs, also obtaining a further £10 + VAT saving due to them not being able to supply the VGA adaptor.

Where? I hear you scream. DABS Direct! They don't advertise it - you'll have to ask them to print Microvitec, or you can on 01274 390011.

DABS Direct are in Edinburgh 0131 5564114, London 0171 582 4777, Bolton 01942 794000 and

Working 01483 797474. I bought the VGA 15-23 pin adaptor from First Computer centre 0113 2219444 (in most Amiga mags) for £8.49 including VAT and postage.

A kittle end lead with plug is required if you don't have a Goliath power supply or similar, these can be obtained from any computer shop that sells peripherals and not just software. (Easy PC.

Grovesnor Road, Aldershot £3.50). Oh, and by the way I nearly forgot: most importantly it's a GPM 1701 MICROVITEC if you get it this way and not an Amiga M1764. It comes with a manual and doesn't require any extra software, it also remembers 32 different screen settings automatically after each new one you resize to fit the screens. mode, ie: DBL Pal Hi-Res no flicker or Multiscan Productivity both in 600 x 557. Multiscan works best - I'll let you find out why. I should know.

Simon Phelan
Aldershot

Thanks for that tip. Presumably you don't get a nice Amiga badge on a GPM1701 though - but then, it's no great loss really.

Amiga Shopper Coverdisks on the Amiga Format CD (after all any self-respecting Amiga Shopper reader would have CD-ROM drive by now wouldn't they?). Rename AF Serious and AF Creative; AF Shopper featuring yellow pages of cheaper monochrome adverts aimed at PD libraries and smaller companies with free classified private ads, regular product listing/guides, tutorial and help pages.

I would also like to suggest a few other changes that I feel would benefit AF as a whole:

- 1) More technical coverage similar to the way AUI and Amiga Computing write.
- 2) American news and the like, especially now that Amiga is owned by an American company again.
- 3) Single pages featuring news etc, specific for each individual machine: A500 report; A1000 report; A2000 report; A1000 report etc.
- 4) An American edition so we see overseas adverts.
- 5) As the superior Future Publishing magazine take over the odd page in *The Edge* and let them

know that *Quake* and all the playability-free Playstation games look rather sad in comparison with *The Killing Grounds*, a decent version of *Worms*, *Odyssey*, *Slam Tilt*, *Breathless*, *Capital Punishment*, *Virtual Rally*, *Xp8*, etc etc.

6) Start a write-in campaign to get Sega to, along side the Sega PC development, start Sega Amiga development - I would love to have the opportunity to play *Rally*, *Virtus Fighter 2* and *Virtus Cop...* I even like *Baku Baku Animal*. Considering the Saturn is likely to be Sega's final foray into hardware this step would be logical... especially for PowerPC or DEC Alpha Amigas.

7) Actually forget that last point, just mould your readership into a streamlined fighting force to lobby for the release of games such as *Settlers 2*, *TFX*, *EPF 2000*, *Inferno*, *Theme Hospital*, *Command & Conquer*, *Tunnel B1*, *Warcraft 2* and all those arcade games on Amiga CD-ROM asap... after all, our current crop of games prove that these games could be IMPROVED

upon for 4Mb '030 CD-ROM AMIGAs!

8) These T3 and SFX mags of yours have mini versions with direct Amiga connections within AF... For instance *Star Trek: First Contact* will have a lot of Toaster and Lightwave produced effects... Viscorp ED should be in T3.

This should result in larger circulation, more advertising revenue and a reason for CTW to stop referring to the Amiga as being dead.

Seen Harvey
West Midlands

PS. Was it really surprising that Escom failed? Most of the staff were from Rumbelows and Calculus!

Well, I'm sorry to hear that you are glad Amiga Shower is, sniff, dead. We sort of quite like that you know. Of course, we rarely saw their point of view, but there was an amiable about their ineptitude to attach a hard drive to an A1200, or copy files onto a PC disk. And Sue Huntley was the queen of all Art Editors.

However, we will be incorporating vague elements of both Power and Shopper in Amiga Format. I don't think you can reasonably say that we don't cover as much of the technical side of things as Shopper, because we do. However, I don't really think there is much need to change the way we approach our reviews or tutorials. Most people like them that way, which is why Amiga Format is doing so much better than Shopper.

As for your other points:

- 1 - I don't understand, you mean you want AF to carry pages and pages of stuff that has absolutely nothing to do with the Amiga - like AUI?
- 2 - We are hoping to expand our news coverage and make it more global, but sadly, there isn't much going on in the States Amiga-wise at the moment.
- 3 - I think we have better things to fill the magazine with rather than a page of news for A1000 owners, besides, there wouldn't be any news for them.
- 4 - If we had a separate American edition, you wouldn't see any American ads, because they would only appear in that edition. At the moment, most advertising by American companies is done for them by their European distributors, which makes it more convenient for people who actually want to contact them.
- 5 - I assume you mean Edge (as in the magazine, not the U2 band member). They know that anyway.
- 6 - I think Sega might be more convinced if you could actually buy one of the machines you mention, or even if someone could tell them when one would appear.
- 7 - We have tried. If more of you sent your surveys back, we may even be successful with TFX.

8 - SFX have already given Ron Thornton and Lightwave a whole load of coverage. I'm sure T3 will be covering the ED too. And finally, you should know better than to believe anything CTW have to say about the Amiga (unless I've written it, obviously).

Thankyou to everyone who sent in a copy of the Overdrive software. We've forwarded several copies on to Mr Holcroft and he should have things up and running by now.

How to contact us

The best way to get an answer from Amiga Format is to make sure you're addressing your letter to the right person.

● We get hundreds of letters and fax a day, so we can't reply in person. An Amiga Format is available for visual enquiries by phone every Tuesday between 2pm and 5pm.

WORKBENCH:

We'll only answer technical problems in the mag. Write to us at Workbench, Amiga Format, 30 Monmouth Street, Bath BA1 2BW.

GAMEBUSTERS:

If you've found a bug, or found the passwords for a game, send them to Andy Smith and you could win a prize. If you're stuck, ask Helping Hand for advice. Gamebusters, Amiga Format, 30 Monmouth Street, Bath BA1 2BW.

READERS' LETTERS:

The letters pages are here for you to air your views. Remember not to ask questions that should be in Workbench! Letters to The Editor, Amiga Format, 30 Monmouth St, Bath BA1 2BW.

COMPETITIONS:

Write in, winners and your name and address on the back of a postcard. "Name of the compo", Amiga Format, 30 Monmouth Street, Bath BA1 2BW.

SPECIAL OFFERS:

If you've ordered something from the AF Mail Order and you've got a problem, call 01225 522515 or write to:

AF Mail Order, Future Publishing, FREETEST (BS4500), Somerton, Somerset TA11 6BB.

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Send us enquiries to: AF Subscriptions, Future Publishing, FREETEST (BS4500), Somerton, TA11 6BB, or email: subscriptions@futurenet.co.uk

FAULTY COVERDISKS:

If your disk is faulty, send it, enclosing an SAE and 2x26p stamps to: Amiga Format (insert name of disk) 118 TIC, 11 Edward Street, Bradford, BD4 7BH.

If there is a manufacturing error the stamps will be returned with a replacement disk.

EMAIL:

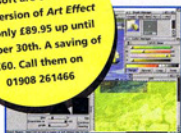
Send email messages to AF at: workbench@futurenet.co.uk. Include the department in the subject line (Workbench, Letters etc). If you write info in the subject line you will receive a list of all relevant departments.

COVERDISK SUBMISSIONS:

Future Publishing only accepts Coverdisks deemed and submitted on the basis that they may be incorporated into a Future cover-mounted disk, unless expressly stated in writing to the contrary.

AMIGA FORMAT COVERDISKS

Blittersoft are offering the full version of Art Effect for only £89.95 up until October 30th. A saving of £60. Call them on 01908 261466



It's the art package we've all asked for, but never had. **David Taylor** unleashes the power of Art Effect 1.1.

David Taylor introduces not one, but two demos this month and an editor for *Alien Breed 3D II*.

Fortress of Eve

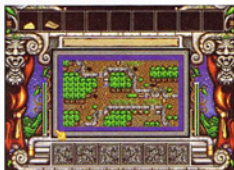


Examine objects using a separate menu. Cancel a choice using the right mouse button.

A map of the level is available so you can see where you are in relation to everything.



If you pick up the items that are in front of you, you'll get a nice comment.



Fortress of Eve takes the same vein as the first two *Valhalla* games giving you point and click control over a cute looking hero. The object of the game is to solve the puzzles and you move by putting the pointer over the direction you want to go and clicking the left button.

If you come across an object you want to take a look at, move the mouse cursor over the toolbar and click on the Eye icon. You will be told exactly what it is and you can pick up, use and give objects all in this way. The icons on the toolbar, from left to right are:

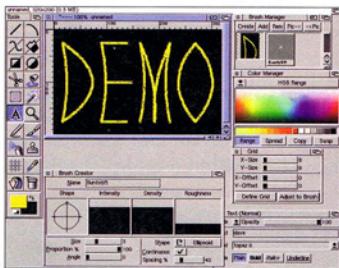
Map icon - Open a map of the level showing your position and the position of any other characters.

Eye icon - Take a look at the object in front of you. The king will tell you what he sees.





Try out the very latest - and some say greatest - art package ever seen on the Amiga.



Art Effect

David Taylor introduces a demo of the hot new art package for the Amiga. A real competitor for Photoshop? Find out for yourself.



Does this type of loading screen seem familiar to anyone?

FILTERS

COLOR:
Threshold
Solarise
Posterise
Negative
Histogram
Equalisation
Colourspace
Processing
Colour Correction
Antique
BLUR:
Smooth
Gaussian
Blur
Sharpen
STYLE:
Wax Paint
Relief
Oilpaint
Laplace
Edge Finder
Displace Pixel
DISTORTION:
Twirl
Curl
Caricature
PIXELATE:
Segment Image
Polar Mosaic
Mosaic
Median
OTHER:
Offset
Mirror Picture
Convolve
BumpMap

We've seen art programs for the Amiga before but the one about to arrive, doesn't look like any of its predecessors. The reason for the change in style has been the growth of programs like *PhotoShop* on the Mac and PC.

Before you use the program, make sure that you've read the box on installing the software. When you've loaded up the demo, you'll see a

familiar looking toolbar. You can create a new picture or load one in, but note that this demo will only load IFFs or JPEGs.

MAKE SOME MAGIC

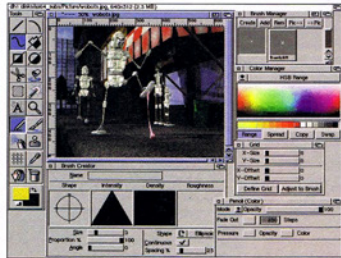
In this main toolbar are all the usual tools, straight and curved lines, boxes, cut and paste, text, etc. However, there is one special new tool that *Photoshop* users will be used to which we haven't seen before. The magic wand tool, shown, amazingly,

by a magic wand, allows you to pick up an element of a picture according to its colour. This means that you can set the tolerance to a level which chooses colours similar to the one you pick, so that you get the whole section of the picture that you want. Given that this program is designed for editing 24-bit pictures, this tool is invaluable because it isn't as if you can pick up just one colour and get it all. There are always shades to include.

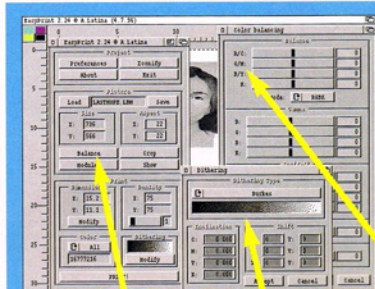
Next to the Magic wand icon is a selector icon that allows you to choose just a single part of a picture which you can then edit.



There are a range of tools to help you achieve what you want.



Get started working with brushes when you have the windows open.



EASY PRINT

This is the latest version of the print enhancement package that allows you to get the best out of your printer by using error diffusion. When the program has loaded, you can open a picture in it and then make any adjustments necessary, such as changing the contrast between colours, changing to greyscale and adjusting the dots per inch.

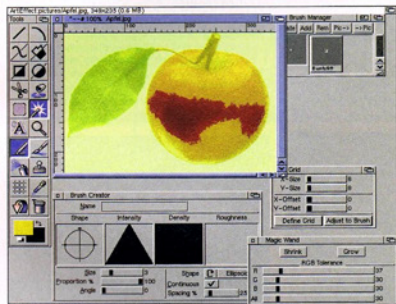
The main EasyPrint interface with picture options and access to the other windows.

Adjust the dithering on the picture to get the best from your printer.

Change the colour settings and balance to compensate for any printer irregularities.

CLIP HISTORY

When you cut or copy a piece of text in a word processor, the text is stored temporarily in a clipboard. But you can only have one piece of text stored at any time and the text is only available in that application. This utility changes both these restrictions. You can have multiple entries in the clipboard and paste between applications. If you want to use a different clip, select it from the interface and it becomes the current entry in the clipboard.



If you use the magic wand it is possible to pick up similar colours.

If you want to wade straight in, it's best if you load in a picture to get started. There are several example pictures included and there is also a picture, created by Chris Banks, saved directly onto the Coverdisk for you to play with. Open up all the windows using the window menu so that you can see some of the other tools at your disposal. Notice that the palette control is quite different to those in other programs. There is even the option to use a CMYK palette – the type used professionally, which other Amiga packages normally omit.

FILTERED OUT

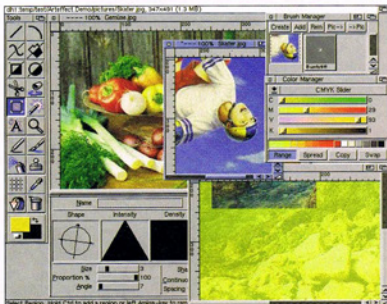
If you have the Brush windows open, then you will see a small rendition of the brush you have selected. You can flip, scale, shear, trim, and adjust perspective on any brush. Any brush can also be taken from the picture or the inverse and a picture can be created from the brush.

Apart from the Brush windows open, then you will see a small rendition of the brush you have selected. You can flip, scale, shear, trim, and adjust perspective on any brush. Any brush can also be taken from the picture or the inverse and a picture can be created from the brush.

to allow you to retouch pictures or elements. This is ideal for touching up scans or for adjusting pre-made pictures. When you choose a filter to be added, you will see a preview box which shows how the effect will look on the picture. Some filters have degrees of change and you can adjust these until you are happy before adding the change to the image.

As you will have guessed from the fact that the toolbar includes drawing tools, this package is designed for both picture creation as well as processing. Art Effect is unique in this respect because it allows you to do more than simply choose the type of brush.

Other packages have allowed you to decide whether you want to simulate a natural brush,



Multiple image editing with a CMYK palette requestor.

like coal, chalk, crayon, or oil colour, by changing mode, opacity, intensity, density, roughness, form, etc of a brush. This should enable you to use a brush ranging through anything from a water colour brush to harsh chalk realistically. However, in addition to this facility, you can now also choose the virtual surface – so you can paint on wood, canvas, stone, etc. with whatever type of brush!

Art Effect is designed to allow Plug-Ins so hopefully, we will see even more features added by third party developers and if you're impressed with the demo version on the Coverdisk and want to get your hands on the full package get hold of a copy from Blittersoft on 01908 261466.

INSTALLING THE SOFTWARE

The Art Effect demo requires a hard drive and so installs directly there. If you don't have the bugi library installed on your system, then you need to make sure you copy it over from the directory – you can use the Installer icon. Without it the interface cannot run. Easy Print also requires its own fonts installed on your system before running. Read all the documents for the programs before using them as all the requirements and installation details are included there.

AMIGA FORMAT COVER CD

Another month – another CD. Yes, it's that time again as we take you through the wonderworld that is AFCD6.

WHAT'S ON THE DISC?

This month seemed a bit lean to start with. There wasn't much new on Aminet, we didn't have very many reader submissions, the gallery was empty and there weren't any commercial demos. But then, all of a sudden, everything turned about. I was inundated with reader submissions from all corners of the globe on a variety of media. To those of you that sent in video backups, please stop because we haven't been able to retrieve a single file from any of them. The video backup system works fine for one machine, but as soon as you start introducing different video recorders,

First off, you'll notice that there are a few icons missing from the root directory this month. They have been moved to a new drawer called "Have_a_look_here_first!" and, in addition to the familiar assigns icons there is a new drawer in here called Handy Tools. This contains some of the programs we use every day at Amiga Format, tools to improve efficiency, add shortcuts and new menus and even allow us to copy text from where we shouldn't be able to. There's even a copy of ToolManager already set up with a variety of file viewers like ViewTsk that you can double click on and get set up.

Every month we get better and better reader contributions to our CD, but don't stop sending them in, we want more, more, MORE!



different Amigas and so on, nothing works. As for those of you that sent in EZ drive cartridges, well, this is pretty much the only format we can't handle at the moment, but we'll hold onto your disks for a bit longer since we will be getting an EZ drive just for your submissions.

But it isn't just your contributions that we have filled the disc with this month. There are over 20,000 different files on that shiny silver disc and we would never have the space to explain all the programs on it in these two pages so we'll have to stick to the basics.

Also in this drawer you'll find another drawer called "AF_on_the_web". This contains an html document and there are also a few web browsers.

This page will lead you straight to the excellent Amiga Format web pages and also those pages belonging to HiSoft and Sadness and the brilliant Oliver Roberts' Amiga Formula One web site. If you want to see your web pages on forthcoming CDs, then what are you waiting for? Send them in, but remember, the Amiga content has to be pretty high to make the grade.

AAARGGH!

Many of you had problems with AFCD5 which, owing to a miscalculation, won't work on machines that run Commodore's CD file system. Anyone running the AmiCDF5 on AFCD4, 5 or 6 won't have any problems and neither will anyone running the splendid AsimCDF5 which is available from Blittersoft. Unfortunately, those of you limited to using CD3's or CDTV's as your main machine have no way of changing the CD filesystem. By the time you read this the problem will have been resolved. If you haven't already got a replacement CD then you should contact Ablex at the usual address.

CD WINNERS!

These reader all win £30 for their contributions. Remember, only by sending us your programs, music, games and animations do you stand a chance of winning a similar prize.

- Richard Lane for his excellent extension to Directory Opus 5, Magnum Opus.
- Ian Chisholm for his aptly named target shooting game Target2.
- Stephen Devine for his original module called Speak and Spell.

Worried about how to send in your submissions? Check the submission advice in the Have_a_look_here_first! drawer!



NOT MORE SURVEYS?

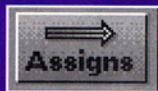
Oh yes indeed. In our constant bid to improve the CD we want you to send us your thoughts on what we're doing right with it and what we're doing wrong. If you think the balance should be changed on the CD, if you'd rather we just put games that can be booted on the disc, if you'd rather we just had utilities, then let us know. We're not offering a prize for this merely a better CD as a result.

The survey is in the Have_a_look_here_first! drawer and you can email the form to us or edit it, print it out and send it to us.

GENERAL ADVICE

Most of the programs are designed to run straight from the CD, thus saving your hard disk space, but they often need assigns to make them work properly. If you see icons like these two in a drawer you should double click on the one with the arrow pointing to the right before you start using the program, and double click on the icon with the arrow pointing to the left once you've finished with the program.

If there isn't an icon, but the program still asks for assigns, your best bet is to install the rather excellent and terrific MultiCX (in the AFCD6:have_a_look_here_first!Handy Tools/drawer) to your hard drive and run the program. One of MCX's abilities is to allow you to assign things on the fly and this can be a big help. It does have a lot of other features though, which is why it is in constant use on my hard drive. Try it out and I think you'll find that you can dump a whole bunch of your other commodities.



COVERDISKS

Lucky, lucky you. Not only do you get a CD full of brilliant software, you still get the *Amiga Format* issue 90 coverdisks to boot (well, not boot exactly, you have to extract them to disk, but then you might be able to boot them, I think).



SCREENPLAY

No commercial game demos this month, but if you're a hard drive-owning gamer you'll be delighted at the numerous patches which will allow you to install your games on HD, and all gamers will be pleased at the 1300 cheats on this month's disc.



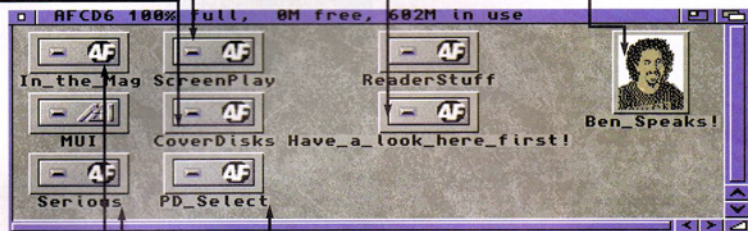
HAVE A LOOK HERE FIRST

This drawer contains all the stuff you'll need to get started with AFCD6 - the CD assigns are in this drawer too, together with an animation our Nick has been working on and the AFCD6 web experience.



READER STUFF

An enormous range of different stuff from our readers this month from 3D models to a guide to the Olympics, from video backdrops to encryption tools. It's all in here with some of the best gallery and music submissions we have ever received.



IN THE MAG

You'll find a complete installation of QDOS to accompany Simon Goodwin's article on emulation, together with QL programs and even a C compiler. Other items you'll find in here include the woefully lacking future Workbench pictures (where are your ideas for the next generation Workbench?) and items for the multimedia tutorial.



SERIOUS

The *Art Effect* demo is just one of the superb commercial demos you'll find on this month's CD. There's a wide range of the latest and greatest from Aminet and previews of some of the best CD-ROM titles around. Because one of our readers asked for it, a whole load of stuff dedicated to 3D is in the shareware drawer.



PD SELECT

Over 40Mb of the latest and greatest demos which we are absolutely positive you won't want to spend the time and money downloading, so we've done it for you. Aren't we great?

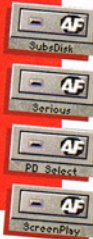


Where are you?



Since we asked for icons for our CD how many do you think we've had in? One. One, that's all. And you call yourselves *Amiga Format* fans. Come on then, send in your groovy icons to the usual CD submissions address. We'll use any patch required to show them, we'll happily take MWB, NewIcons and any other colour scheme

you want to come up with, just so long as they look great. Remember, we want icons for the different drawer types, for different filetypes (animations, pictures, mods, tools, textfiles, samples, worms levels and so on), and for our specific icons like the assigns and prize drawers.



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, Malesfield 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 please our technical support line. This is open between the hours of 2pm and 5pm on Tuesday. Tel: 01225 442344. Fax: 01225 732341. Email: amformat@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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EXTRA!

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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 documents it is vital 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 the printer prefs utilities. Your Workbench manual describes how to do this.

To print larger documents *Final Writer* requires more memory. If you're using the program on a 2Mb machine, try to maximise the amount of memory available by removing any utilities or commodities running in the background – if you still experience problems, use Workbench's prefs utilities to alter the screen to a lower resolution screenmode. 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.



BREED 96 (AF86)

If when double clicking the *Install_Breed96* icon you get an error message telling you that the command *IconX* cannot be found don't panic. This doesn't mean that your Coverdisk is faulty, it's just that some earlier versions of the Workbench disk don't contain the *IconX* command. To get around the problem: from Workbench open up a Shell window and type the following lines (pressing return after each):
copy c:execute RAM:
cd RAM:
execute AF86b:Install_Breed96
Have your blank formatted disk and your *Breed 96* disk ready and insert the appropriate disk when prompted. Please note that even though the label for the *Breed 96* disk says "AF86a" it is, in reality, disk number AF86b.



OCTAMED TUTORIAL (AF86)

If you are a Workbench 3 user experiencing problems in

trying to read the *Octamed* tutorial guide document then try changing its icon's default tool from "AmigaGuide" to "MultiView". If you are unsure of how to do this don't worry it's not too difficult. Click once on the icon called *OctV5_Tut_Guide*, pull down the "Icons" menu from the menubar at the top of the Workbench screen and select the "Information" menu item. This will bring up a window, in which halfway down you will see the words "Default Tool:" followed by a small box containing the word "AmigaGuide", clicking in this box will give you a text cursor, now using the backspace and del key erase completely the word "AmigaGuide" and type in the word "MultiView", press return then click on the Save gadget (bottom left corner). It's worth remembering that the same solution should work for other Coverdisk document files that try to load tools (e.g. *Muchmore*) that you don't have.



TYPESMITH (AF87)

We apologise to any readers with older machines who have had problems with this disk. We failed to state clearly, that unfortunately *TypeSmith* is incompatible with old Kickstart 1.2/1.3 machines.

MISSING TOOLS?

A common problem is that not everyone's Workbench disk has a copy of the *Amiga Installer* tool on it. Once unpacked, some Coverdisk software needs "installing" before it can be properly used. The authors often include a script that will copy the required libraries, fonts etc. to the correct place on your system. The icon for the script is usually a picture of a floppy disk with a wire and plug coming out of it. If you get an error message *Unable to open your tool 'Installer'* when you double-click such icons there is a solution. You need to find and then copy the *Installer* tool from another disk to your Workbench floppy disk or Workbench hard disk partition. If you are using floppies then use a copy of the Workbench disk and not the original, also you may need to make some space on your copy of Workbench by deleting some non-essential tools such as the clock, calculator etc.

The *Amiga Format Coverdisk 79a*, *Digit* *Organiser 2* demo and the AF Coverdisk 88a,

X-DVE, both have the *Installer* tool on them. If you don't have either of these Coverdisks then try searching for *Installer* on disks belonging to other applications that you own, especially paint programs and word processors etc.

Installer doesn't usually have an icon and is often in a drawer such as the C drawer which itself rarely has an icon. So when looking for it make sure that you switch on Show:All Files from the Workbench Window menu for every disk and drawer you look through. When you find *Installer* simply copy it by dragging its icon into the Utilities or C drawer of your Workbench.

GENERAL PROBLEMS

The most common problems 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's the disk with the problem. Did you format your blank disks correctly? Try re-formatting them and 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 dechunk to HD (High Density) disks as these can be unreliable. Always write protect and back up your Coverdisk before you use it.

FAULTY DISK?

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.

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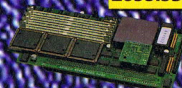
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