

# AMIGA

## User

INTERNATIONAL

JANUARY 1995 £3.75

**Biggest and Best Yet!**  
**4.2 Megs of Great**  
**Programs and Games**  
**on These Two Disks.**



### AMIGA SuperDisk No. 49

**The AUI Great Utilities Disk**  
 Want Four Disks Worth of Incredible Programs?

**EdWord** - Brilliant, feature-packed Word Processor.  
**DB2.3** - Fantastic user-definable database.  
**Filter** - Directory Opus - like utility.  
**Christmas Carol** - Complete e-text of Dickens' classic.

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Boot THIS SuperDisk for its great utilities and also for SuperDisks No. 50.

1 Meg RAM required. Check SuperDisk pages for compatibility. OS2+ FFS disk.

January 1995

**NO DISK**

**Ask Your Newsagent!**  
 Or see the **SuperDisk**  
**Page 8 in this issue.**

### AMIGA SuperDisk No. 50

**The AUI Great Games Disk**  
**4 Complete Games**  
**Absolutely - FREE!**

**Colonial Conquest II** - Incredible Civilisation type game played over forty worlds. One or Two Players. (Requires >1 Meg.)

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**Reveler** - Puzzle game to tease the grey cells.

**Whist** - Classic card game with fiendish computer opponent.

BOOT SUPERDISK NO.49. DO NOT BOOT THIS SUPERDISK.  
 1 Meg RAM required. Check SuperDisk pages for compatibility.

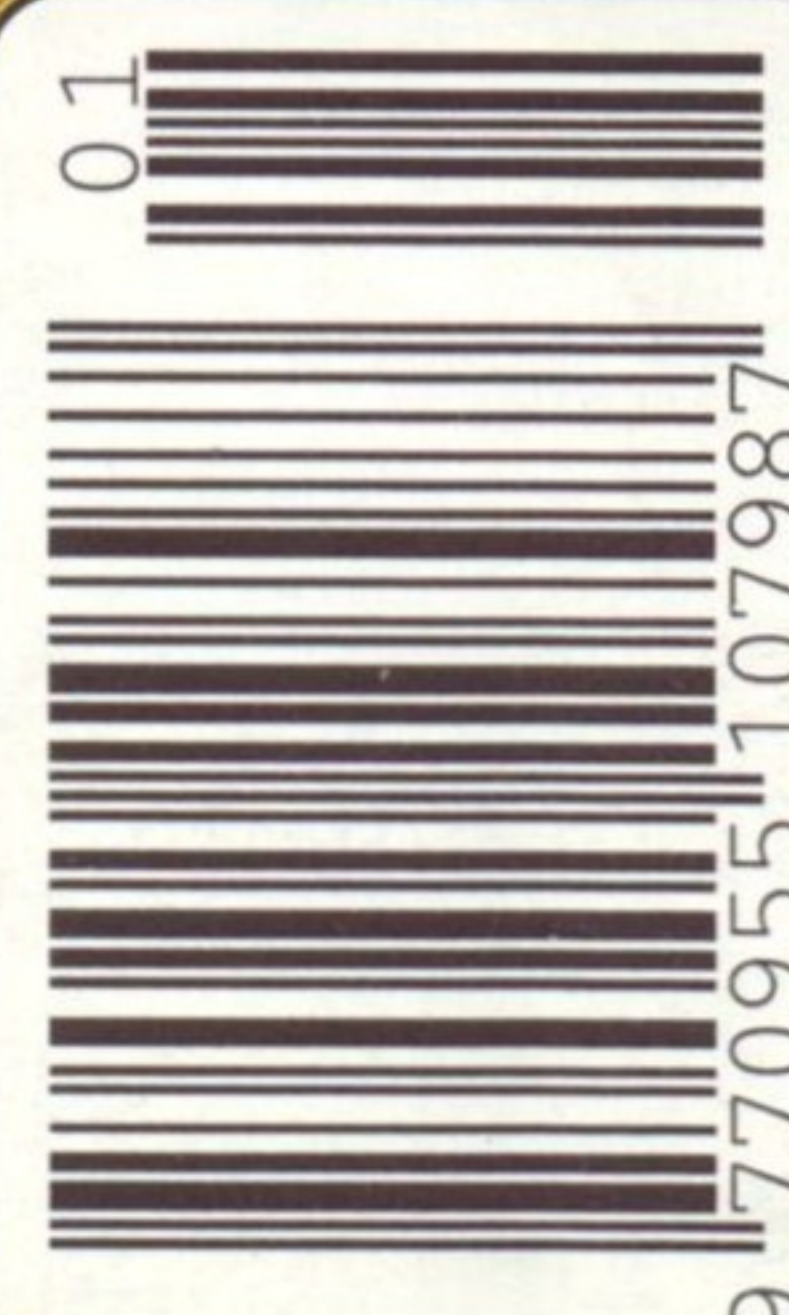
January 1995

**NO DISK**

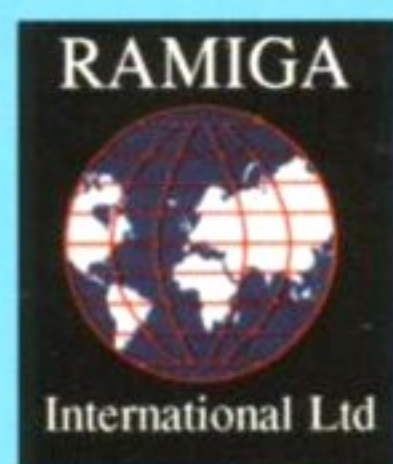
**Ask Your Newsagent!**  
 Or see the **SuperDisk**  
**Page 8 in this issue.**

**The Best of '94**  
**The Lightwave**  
**Challenge**  
**The Hex**  
**Interview**  
**The Internet**  
**Column**  
**and much more**

**AUI AWARDS**







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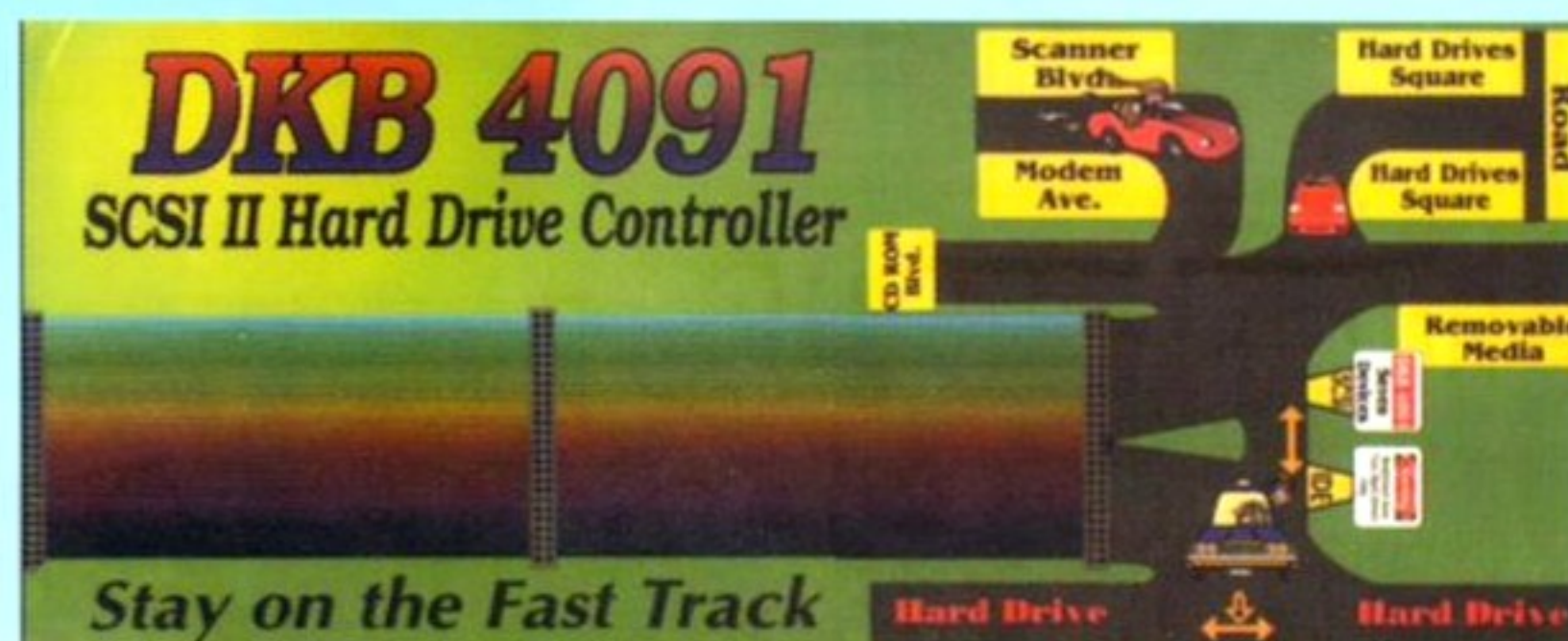
BOS  
Workbench Emulation  
Programmable resolution



Europe

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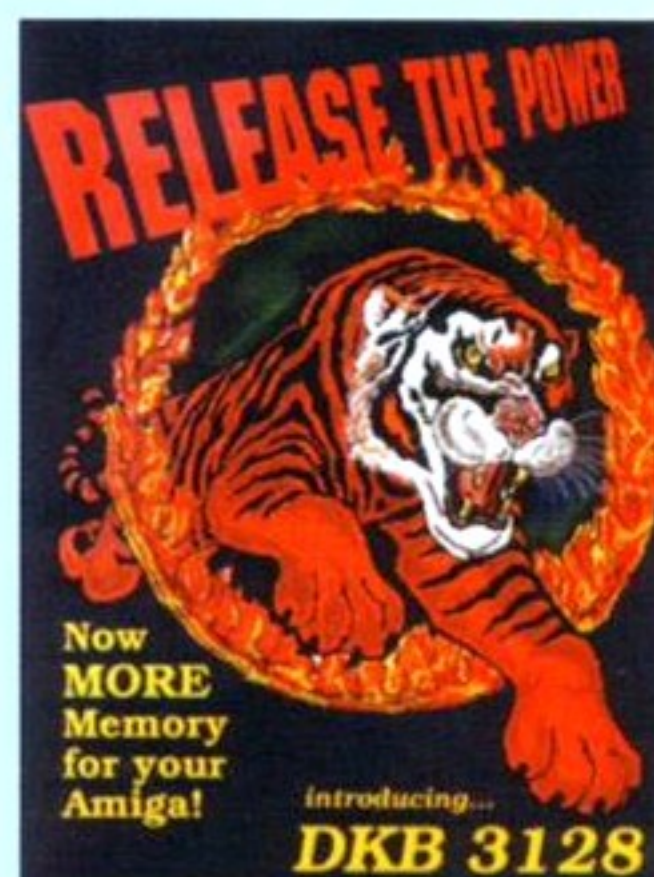
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Amiga Version: Amiga computer, 2mb RAM, AmigaDOS version 2.0 or higher, 3.5" floppy drive, system hard drive. (If using the Video toaster, you will need 9 mb RAM. VT4000 users will need 2 mb chip RAM. When integrating other video equipment, consult manufacturer's documentation.)

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# AMIGA

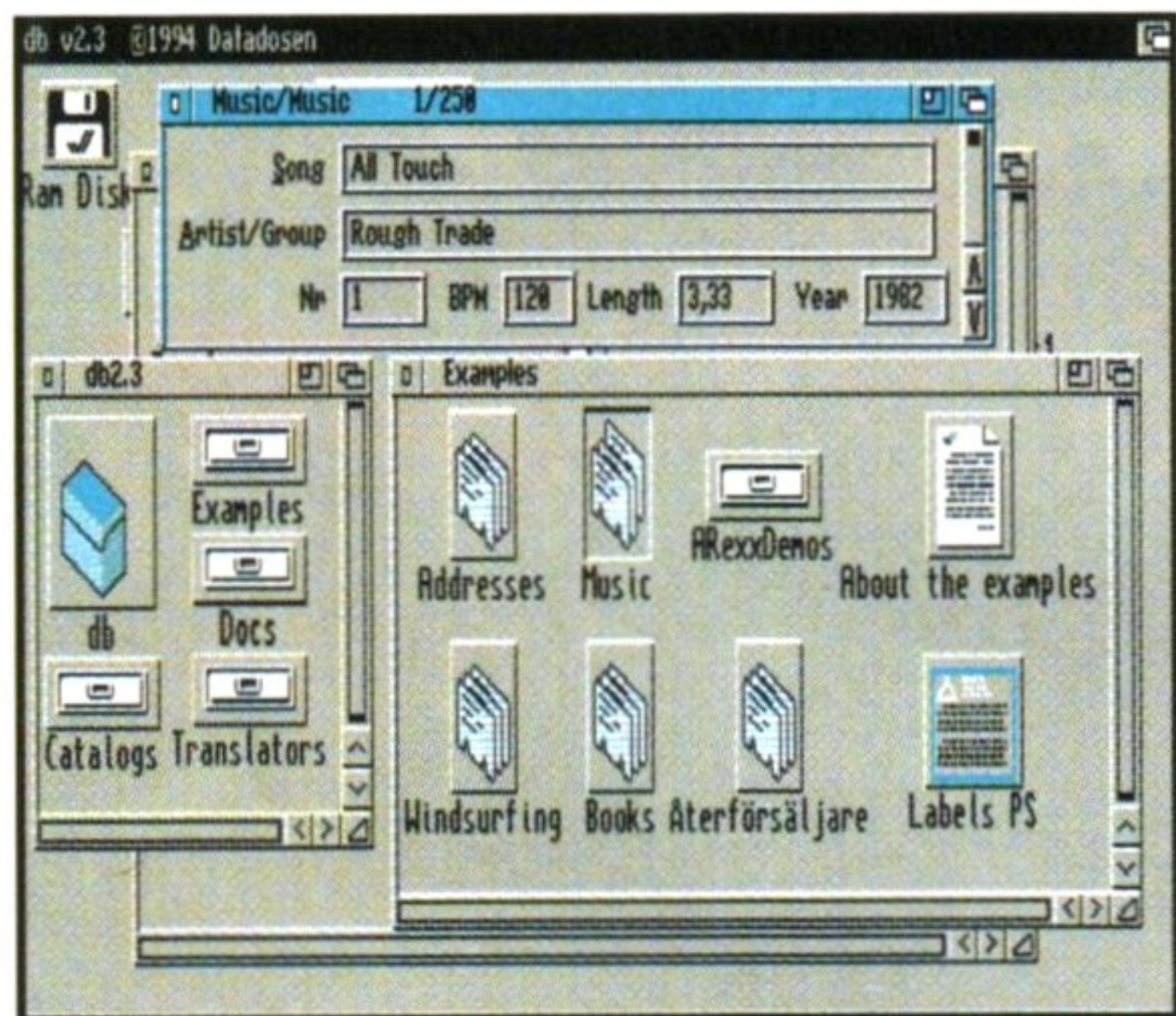
## User

### INTERNATIONAL

#### CONSTANT FACTORS

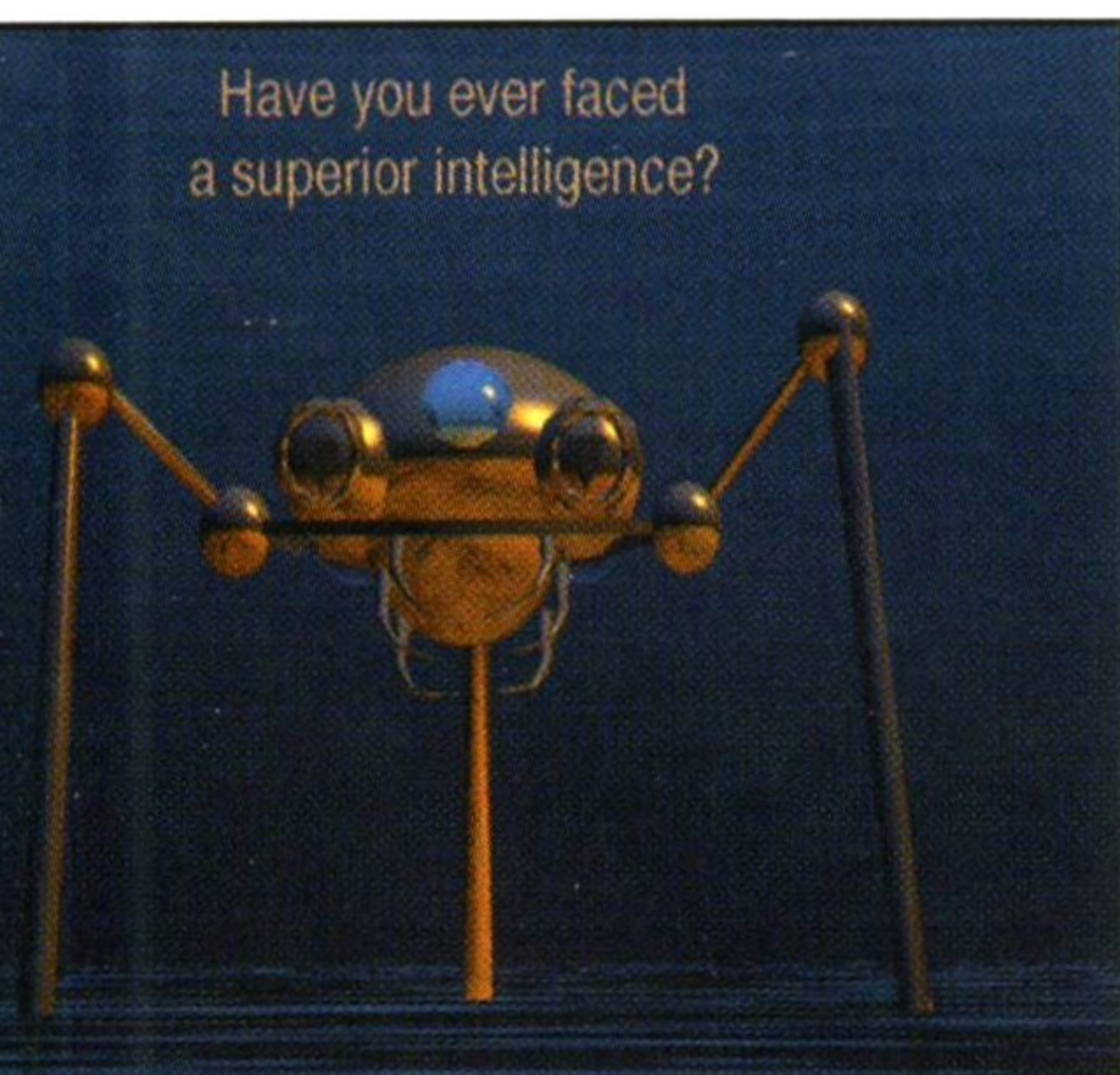
#### 6 SuperDisk No.49

This month's disk is crammed yet again with the 2.8 megs of the most usable utilities you'll find anywhere in the world. That dangerous disk man David Taylor is out to impress the Amiga world yet again.



#### 10 SuperDisk No.50

Here are four great games that will devour every second of your spare time. Mark Blackham lets you into the secret of playing the huge space strategy Colonial Conquest II, shows you how to shoot-em up with Cybernetix and tests your mind with Revolver and Whist.



#### 14 NewsFile

The super-information highway has brought a flood of news traffic to **AUI**. Anthony Mael, Martin Witton and Mark Blackham set themselves up as the Highway Police and arrest the biggest and baddest news for your edification. (Oh really?)

#### 56 The Internet Column

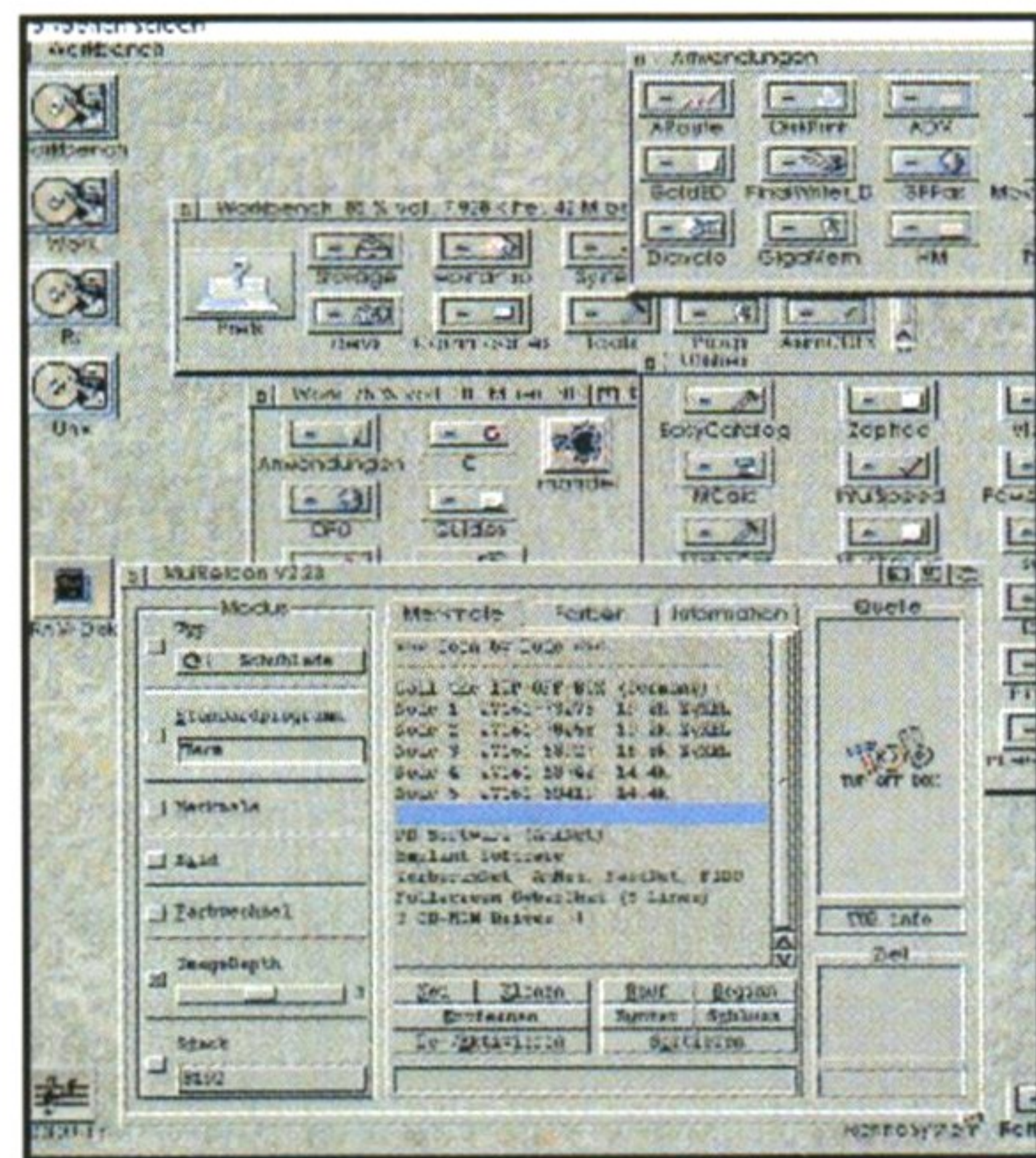
Gary Fenton opens this new regular column with an introduction to the 'net. So if you're feeling bewildered, get ready for some really cyberspaced out enlightenment.

#### 88 The AUI Amiga Answers Machine

Feed in your toughest questions and our human problem solving machine called Andy Eskelson pumps out the brilliant answers.

#### 100 The PD StakeOut

Public Domain software is the throbbing heart - or maybe the foot - of the Amiga world. Surgeon Gideon Overhead cuts in and examines all the incredible and icky stuff.



#### 108 Write to Reply

Bud Vennos picks his way through the literary minefield of letters to **AUI**. He's brought his bomb-defusing and exploding kit. Stand back to avoid the blast.

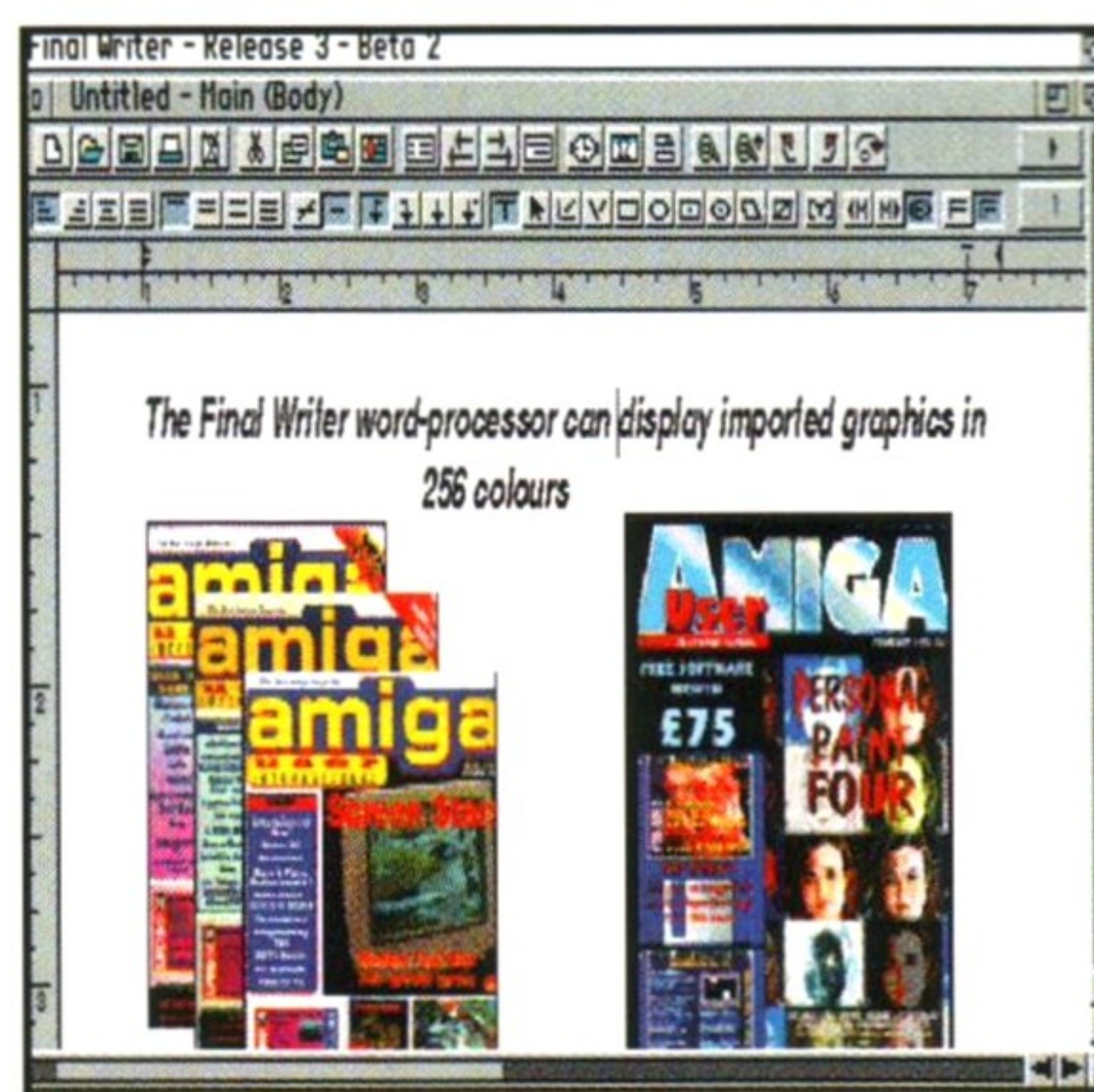
#### 113 The Amiga Dimension

Managing Editor Antony Jacobson points out that analysing is something that's not so easy with the new computer-based media and suggests that the Amiga may be the solution to electronic convergence and information overload.

#### Test Drive

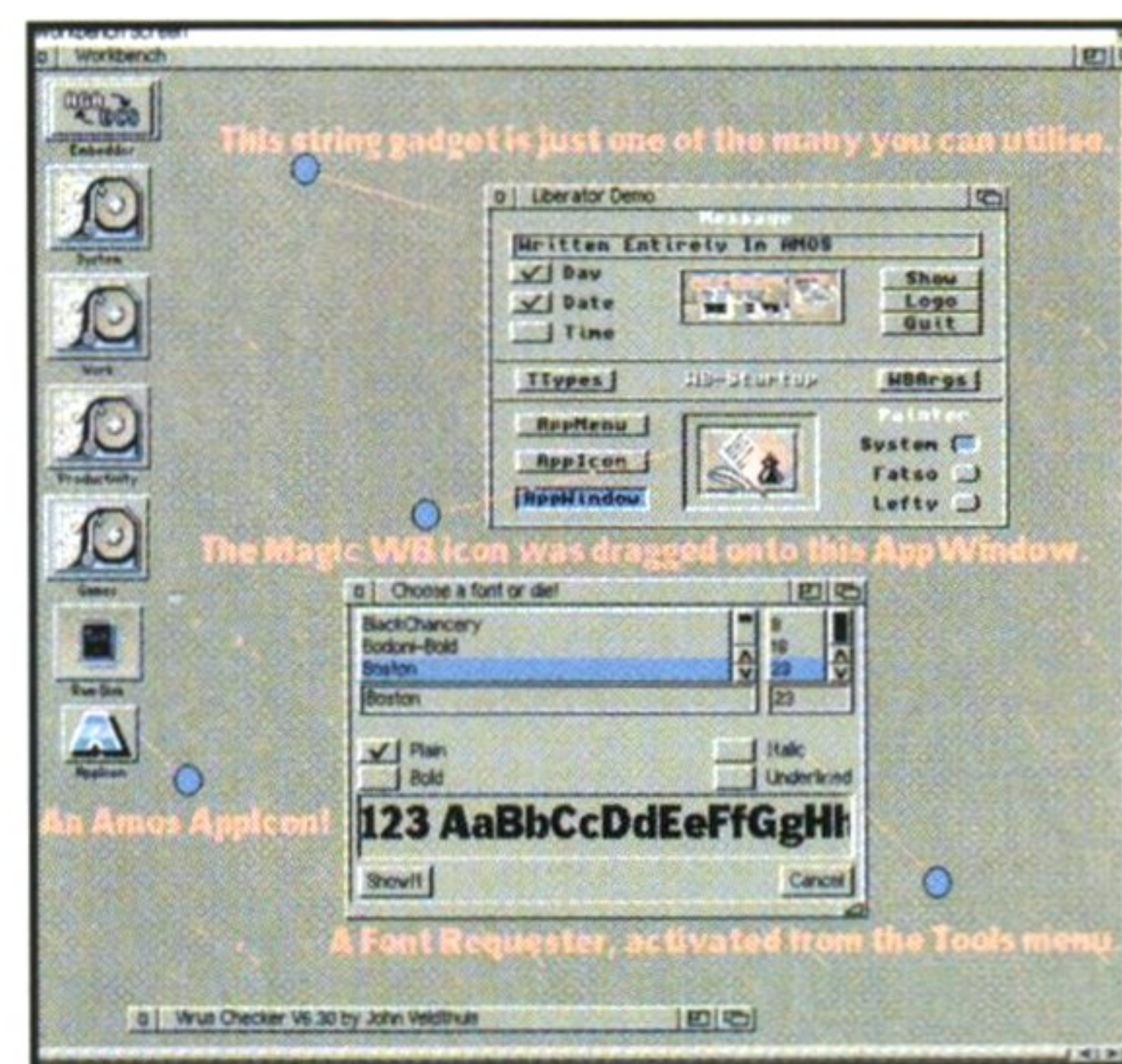
#### 24 Forge

Gary Fenton hammers his way into the powerful image rendering engine behind Essence II - Forge, and gazes in awe at the two volumes of furnace hot textures in the package.



#### 26 Final Writer V.3

The last word in writing on the Amiga? Michael Rumbleow examines whether Final Writer has W/Peed its way into the Amiga history books.



#### 28 Amos Pro

Paul Overaa reviews the latest in AMOS technology. What is the rating of the AMOS Pro compiler?

#### 30 Video Backup

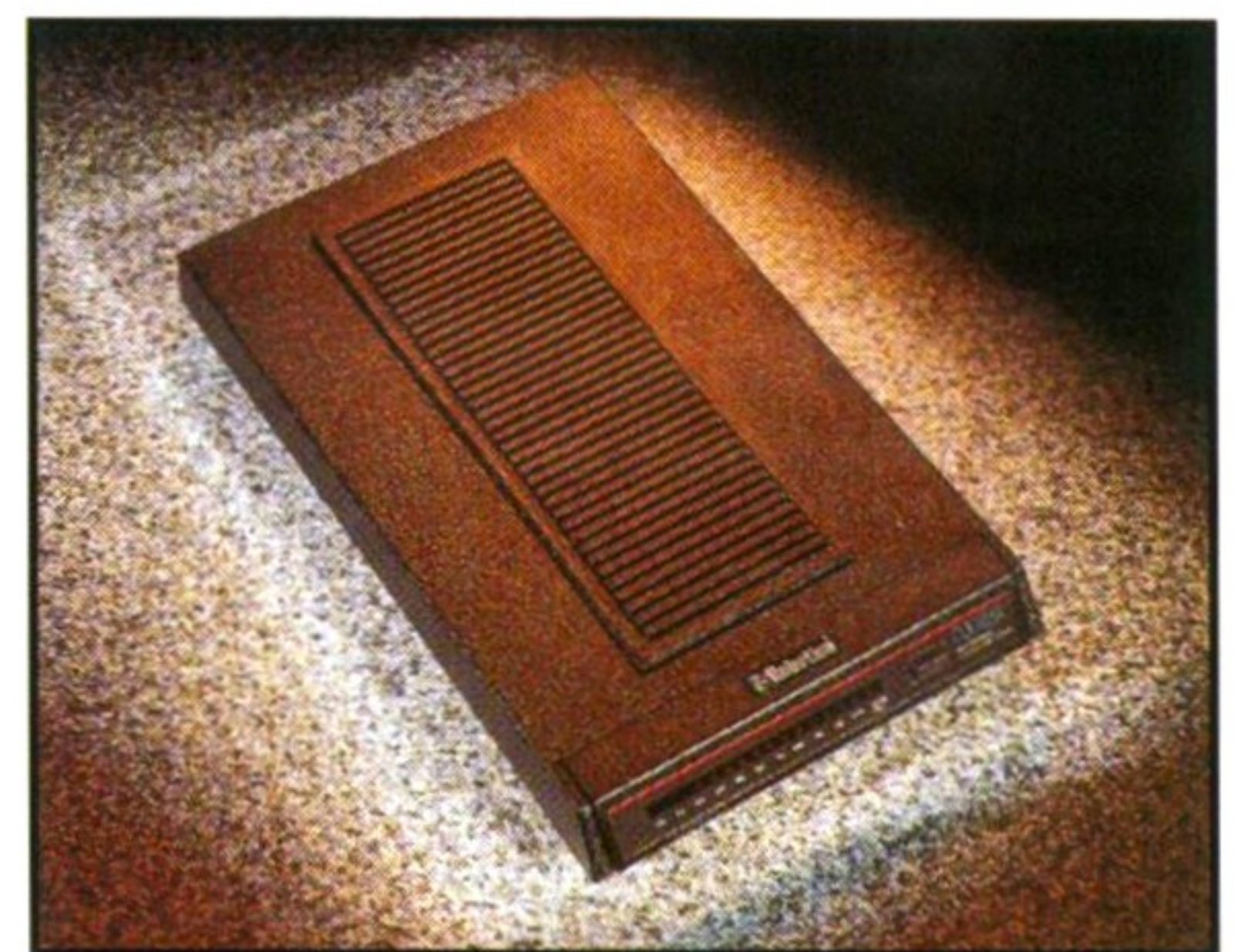
Gideon Overhead reveals how to turn your video recorder into a medium for cheap and reliable mass storage.

#### 32 Heddley

Aren't those AmigaGuide files just superb? Heddley can help you turn ASCII into beautiful Guide format. Paul Overaa does the test driving.

#### 34 Photogenics

Can Almathera's proud new paint and image processing program stand the light of Gary Fenton's probing preview investigation?



#### 36 Only Connect ...

You can use your telephone for things other than 0898 numbers. We assigned Gideon Overhead to find out by using a hot new modem from US Robotics.

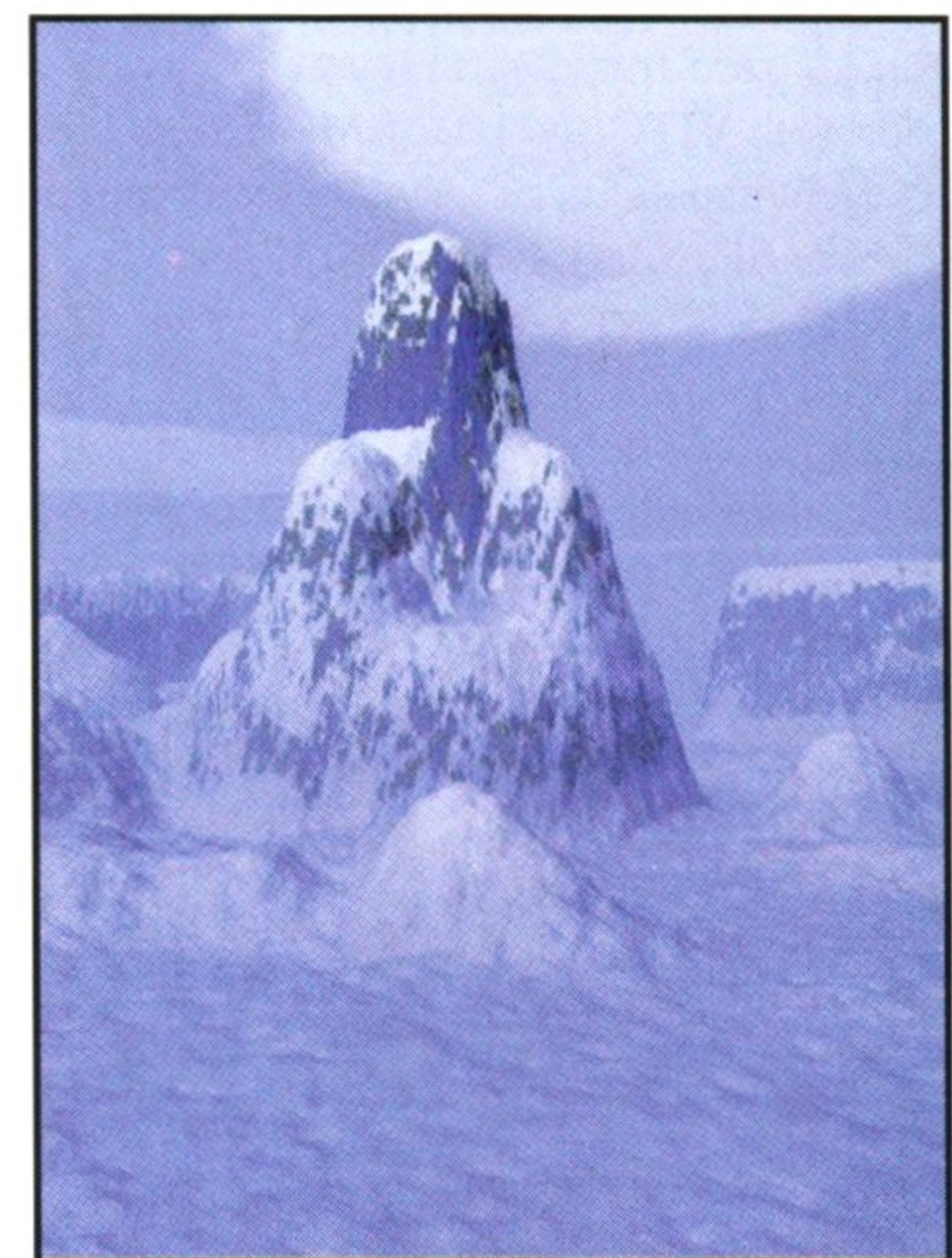
#### 38 Edutainment

Impress your friends by learning a new language on the Amiga, or help the kids improve their spelling, Martin Witton now can do both thanks all those creative people at Ten Out of Ten software.

#### USER PORT

#### 40 The LightWave Challenge

It's hip and it's here. Wil Mobberley took The LightWave Challenge to test the boundaries of this acclaimed image rendering package.





## 44 Visions of Perfection

The power of LightWave is shown off with these images from A&B Photon Graphics.

## 64 No Amiga Is An Island *Part III*

The Amiga lives in a crowded world. Aitor Ibarra continues his series on how your Amiga can make friends across the barriers.

## 68 Opinion

Mark Blackham slams companies feigning support for the Amiga in order to dump stock and run and suggests that the future of the Amiga lies in going PC-compatible.

## FIELD REPORT

## 60 HEX-Tatic

A company that has gone cold-cutting turkey to use the Amiga in the wierdest way and yet prospers to tell the tale to Michael Rumbelow.

## HARD COPY

## 76 The Magic of Image Processing

David Taylor waves his reviewing wand at a new book on one of the Amiga's best known tricks. Or is it really magic?

## MENTOR

## 72 Splined Away

In this month's 3D Tips, splines are lines that curve, according to Barry McCarthy, and he shows what to do with them.

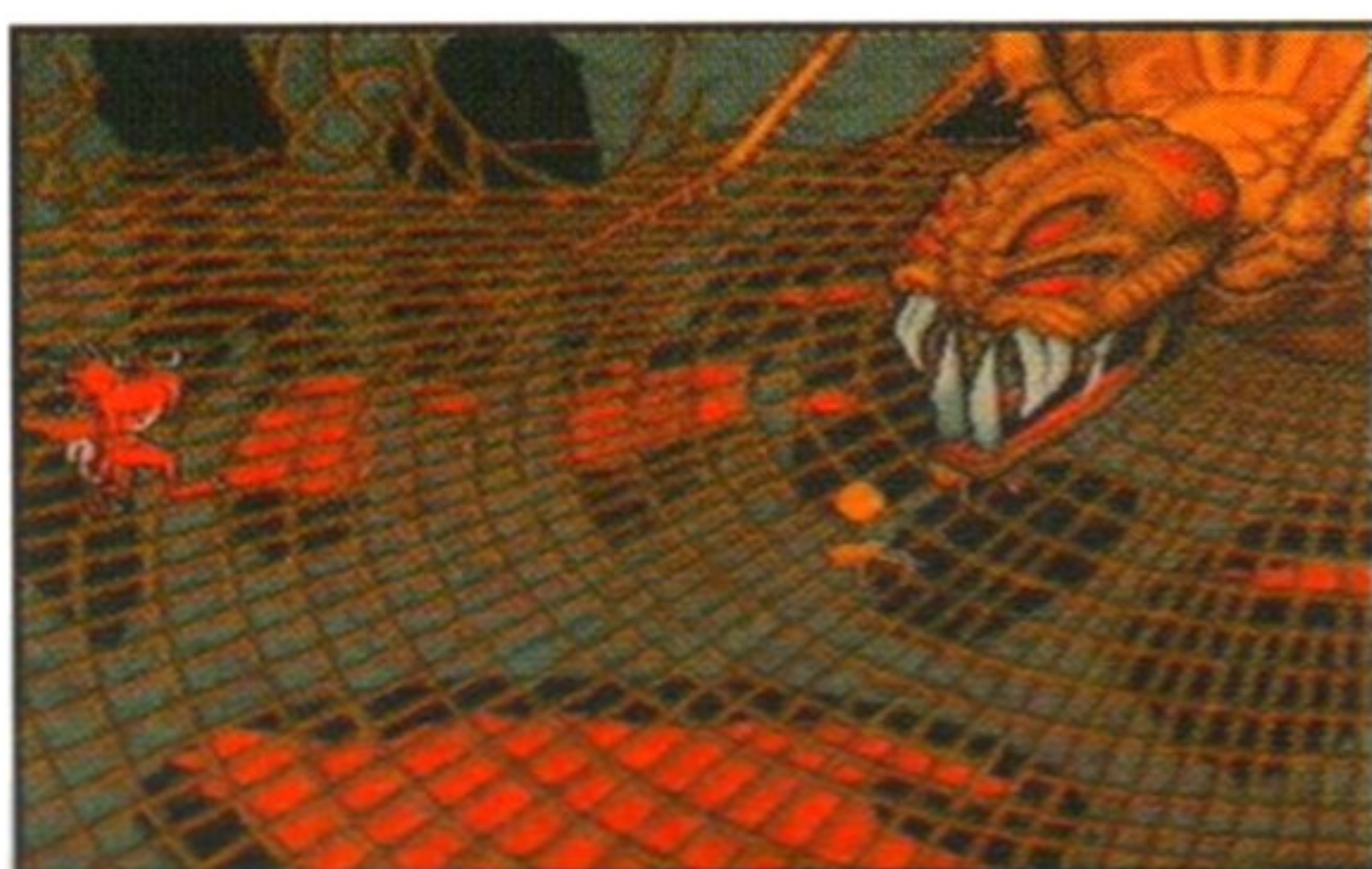
## 78 Programming Tips

More tips to top programming. This Paul Overaa guy is the regular know-it-all that coders just can't live without.

## Entertainment Now

## 82 Games Reviews

The games come at you thick and fast, but which do you choose? Mark Blackham and Andy Moss provide the guidance.



## SUBSCRIPTIONS

## 66 AUI Subscriptions

Beat everyone else to AUI with a subscription. It's cheaper and quicker and less frustrating than finding those newsagent shelves empty.

## NEXT MONTH

70 While you're busy reading this fine issue, the AUI staff are already stuffing the next one to the gills with juicy stories and mouth-watering SuperDisks. Find out what to wait for.

### Who Does What

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### ...And What They Used

Commodore's Amiga A3000, A2000, A500, Citizen's Swift 240C, Canon's BH-20 Bubblejet, Consultron's CrossDOS, Electronic Art's Deluxe Paint IV, Gold Disk's Professional Page, GVP's A530 Turbo, Toshiba's IDE drive, Supra's V32 Fax Modem, Datel's Action Replay MKIII, ASDG's Art Department Professional, Epson's GT-6500 and 9000 colour flatbed scanners, Readysoft's AMAX, OpalTech's Opalvision, Innova-tronic's Directory Opus, JCL's ColourPic Plus and Cabaret, John Veldhuis' VirusChecker, JVC's HR-D980 Video Recorder, Micro-System's Scribble!, Macro Systems VLAB, 32bit RAM from First Choice Computers, Discovery Software's Grabbit.

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# SIX OF THE BEST

*The hopeful nominees smile nervously. The masses stretch their necks for a look at the famous. The six best Amiga products of 1994 are announced by Michael Rumbelow starting on page 46.*





# AMIGA

## User

### INTERNATIONAL

## Welcome to the Great AUI Utilities SuperDisk No.49

**We are about to astound you yet again with the sheer volume (2.8 megs) of brilliant and usable utilities we have packed like sardines onto the disk. Gad, how do we do it? You don't have to worry about how, just say "Wow!" as we guide you through what's on this disk. David Taylor and Mark Blackham introduce the goodies.**

### Instructions

You don't really need any.

Simply boot SuperDisk No.49 (whether you want the programs or the games) and have six spare disks ready.

You'll be asked which disk number you want to install (1-6), type it followed by return (the very large key!).

If it asks for the other SuperDisk, put it in a drive, either the internal or df1: if you have an external. When it tells you, take out the disks, put a spare disk in the internal drive and hit return.

When it has finished, you'll be told.

Have fun.

If you have any problems, make sure you've done everything correctly. If you are, then read the faulty disk section on these pages.

### Expert Users

If you like an easy life, DO NOT read this! Simply install the disks the easy way.

If you want a challenge, read on...

If you are an expert user, then you may want to install the programs yourself, instead of letting the SuperDisk do all the hard work.

Why? I spent weeks on that script. Isn't it good enough for you? No, seriously, if you want to do this manually, then it will take a bit of effort.

You will need to de-archive the commands.lha from SuperDisk No.49 C directory. If you don't have the 'lha' command on your system, copy it across or use it directly from the SuperDisk. The command from Shell should read: "Superdisk49:c/lha x Superdisk49:c/commands.lha ram:".

In RAM: you'll now find a set of directories. There is a devs drawer which contains the device, icons and mountlist necessary for the Amiga to read SuperDisk No.50 (which is a special disk formatted to 959K, thanks to the diskspare.device supplied by Klaus Deppisch). These need to be copied to your devs drawer. The mountlist needs adding to your own mountlist - DO NOT simply copy it as it would erase your own mountlist. I would STRONGLY suggest installing the utilities disk that contains diskspare by the easy method first. You can then read the docs and understand the way it works before proceeding.

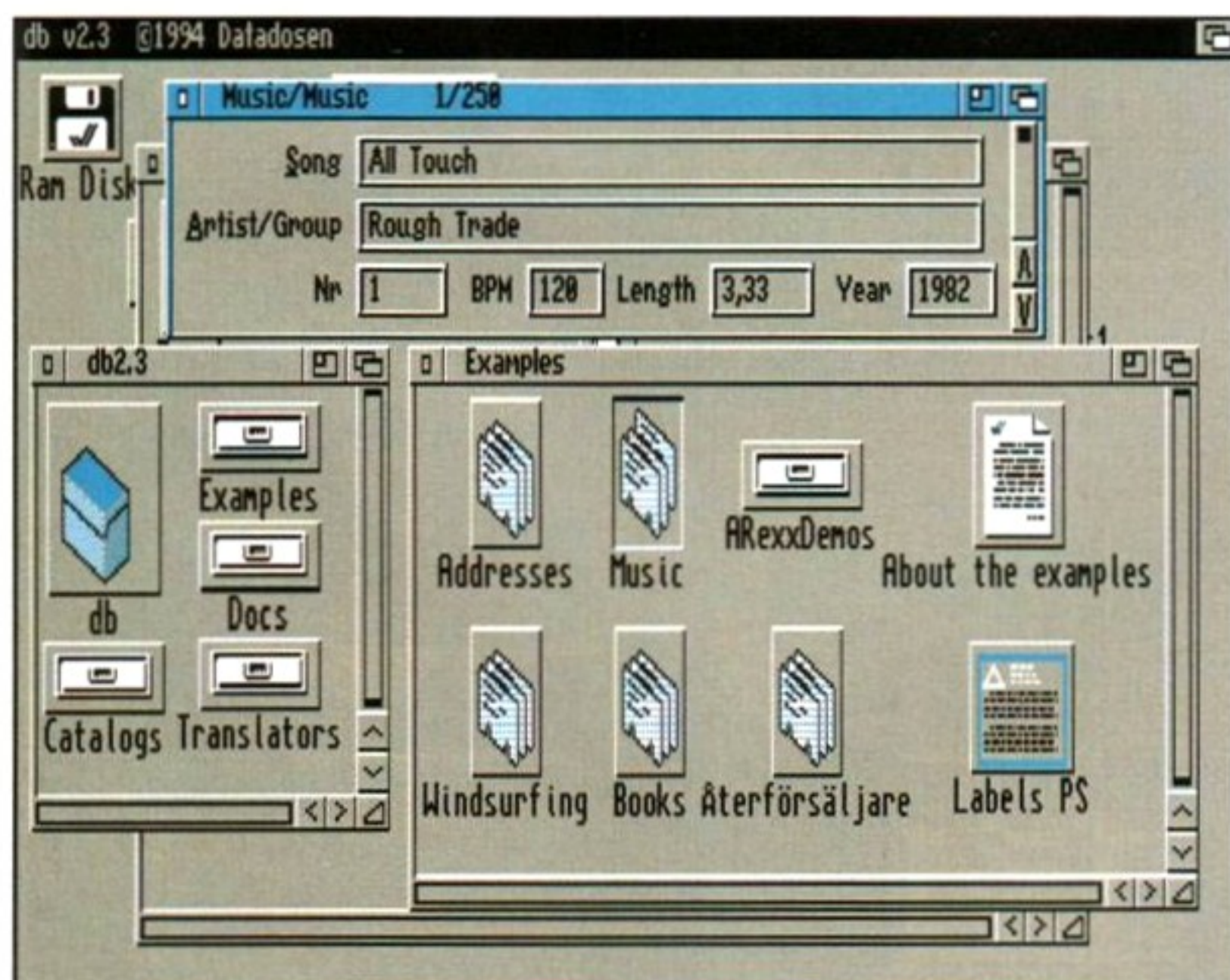
The Amiga will need rebooting. It can now read the disks formatted to 959K. Cool, eh?

Then simply dearchive the programs you want. Either the whole archive or individual programs. They are stored in a directory called "archives" on both SuperDisks. To see the syntax of "lha", type "lha ?" or "Superdisk49:c/lha ?" if you are using it from the SuperDisk. Something like "lha x Superdisk49:archives/utills1.lha xxxx/xxxx ram:" would make sense though.

There you go. Good Luck!

Nobody ever said it would be easy.

**REMEMBER: ALWAYS WORK ON COPIES OF YOUR WORK-BENCH DISKS.**



Use db2.3 to organise your music collection

### DB2.3

The rather short title of this program disguises the power of it. DB2.3 is a database program.

DB2.3 is small, sleek and damn fast.

It's fully featured and can be user defined to deal with a database of

your choice, from cassette labels, to phone numbers, books, anything.

DB2.3 boasts some powerful machinery under its hood. There's dynamic memory handling, vast user-definability, multiple views, online help and a fast flexible sort-mode. Other features include the ability to dial a



# SuperDisk No. 49

number listed in the database if you have a modem, and to use the Commodore clipboard for loading information into the database.

You can install the database simply by dragging its icon into the desired destination, run it from Workbench or CLI and use it with a mouse and keyboard.

The program purrs along on any Amiga with WB 2.04 or higher.

A major problem in my books with large-scale databases is their sheer size. Databases are far more usable on an occasional basis if they are quick and easy to access. db 2.3 sits their innocently and quietly then roars to life the instant you turn the key, and performs superbly.

One of the best ways of using the program initially is to customise one of the sample databases which are supplied.

Search facilities make finding entries easy. The Arexx support means that you can play music or view pictures from this program too. DB2.3 can become the ideal way to sort and store your pictures and modules.

The AmigaGuide file contains all the information you need and a full manual.

To enter your fields and information, you need a word processor that can save ASCII. What do you know? There's one on this disk - EdWord 5!

## EdWordV5

This is the fifth version of this word processor, so you know it's quite popular.

Take a gander at some of the features. You can edit up to 15 documents at one time, cutting, pasting, swapping and anything else you can think of between each one. There is even an option to split the screen and work on two different documents at the same time.

There are Macros for making repetitive work automatic, auto-completion of words, Power Packer support, a built in calculator, auto-indenting, an ASCII table for extra characters and an automatic virus scanner.

Not only is the text editor ideal for programmers, users wanting it for general purpose editorial work will find it a doddle.

This version has the save facility disabled; you have to use the

save as option. It's just a minor annoyance put there by the author to coax you into registering and so you should with such a brilliant piece of software.

## Dialling Codes

It's back! This is an update (Version V1.5 - 09/09/94) of that incredibly handy little program which gives you the UK and international STD dialling codes.

It's now "PhoneDay" aware in case you aren't. This is essential for those of us who will take years before we memorise the new codes.

If you know the area, the program will supply the STD code. If you have the STD code, the program can tell you where that is. I guess this second feature would be handy if you want to know whether you'll be calling the other side of the world, or the house next door.

## Xoper 2.2

This brilliant piece of freeware is essential for displaying and controlling system activity. Find out what is happening inside your Amiga then watch it occur or even put a stop to it!

There is a nifty custom gadget icon which you simply click on to load the program if you don't want to launch it from CLI. Read all about it in the Toolbox article in this month's Amiga Answers.

## Least

You have thousands of text files cluttering your disks but nothing with which to read them. LEAST is for you.

You have written thousands of text files and want to give them to people supplied with the means for reading your words of wisdom. Least is for you.

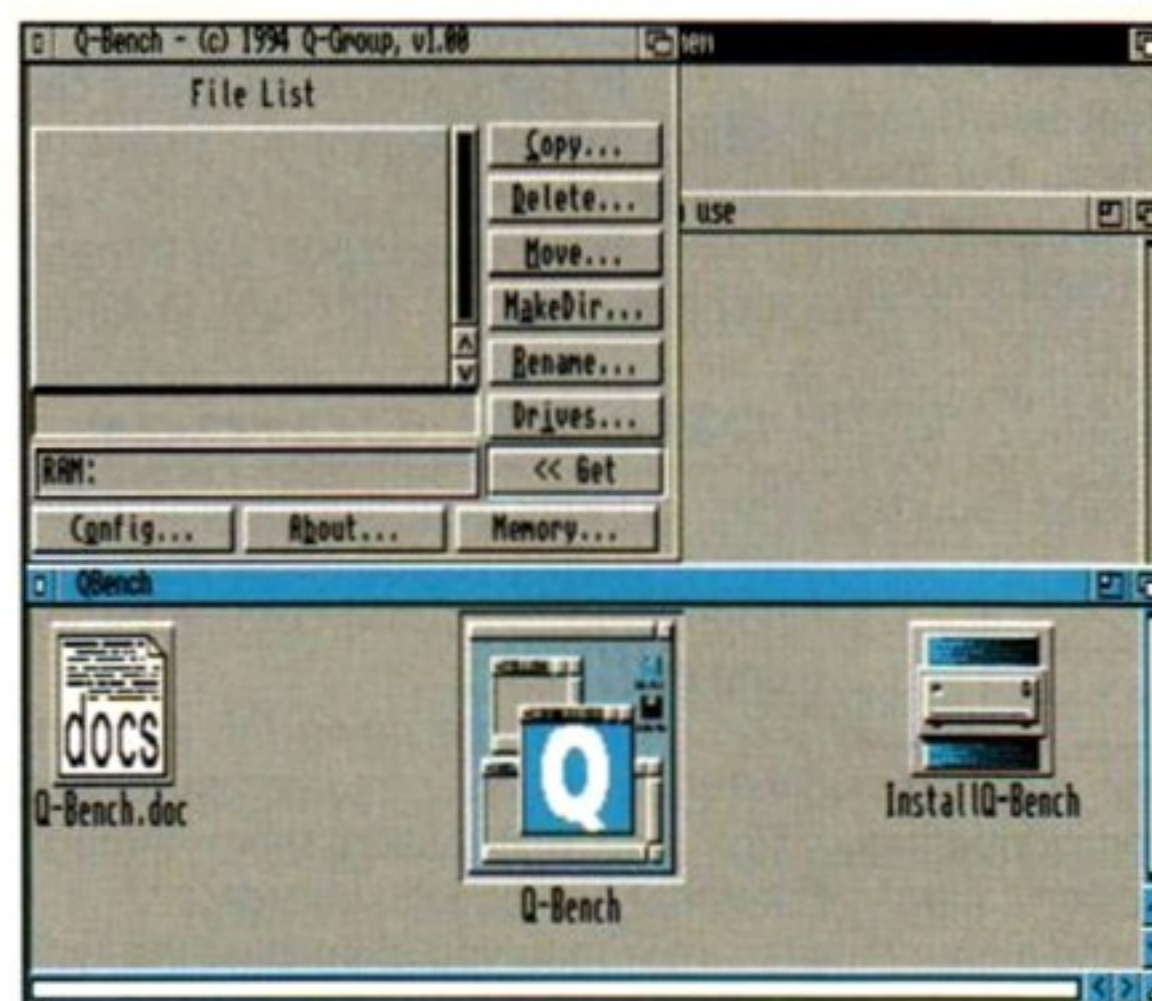
Least is a simple but handsome text viewer. It will take all sorts of text files and present them to you on screen. Nothing simpler, and more essential, than that.

The small size and incredible text file loading speed of the program makes it ideal for supplying with text, and for keeping it tucked away in your system toolbox.

Additionally, Least has its own integrated link virus detector for piece of mind.

## Q-Bench

Sharpen up your workbench with the



Enhance or replace your workbench with Q-Bench?

extra and enhanced commands supplied by Q-Bench. The program boasts itself as an accomplice for workbench. All the usual commands like copy and rename are present, with enhancements. Extra commands are present to aid your system control, especially with regard to file management. Commands like "MakeDir", "File List", "Drives" and "Memory" give you instant access and control of your computer environment. For example you can specify a directory with the "PATH" command then use "File List" to call up brief information on the files contained in that path.

## Pointer X

What would our computer world be like without attractive little gadgets. Haven't you always wanted your pointer to turn into a clock with spinning hands while you wait for a file to be accessed?

Many of you have, and did, with earlier versions of Pointer X. A kind programmer has souped it up to work with ANY Amiga using WB2 or higher.

It kicks in any time the static and dull Commodore "Busy Clock" would normally appear.

Suddenly your whole system appears to be whizzing through the loading time. It's a lot cheaper than buying yourself an accelerator board!

## Pointer Eyes V.3

Don't you just hate it when people watch over your shoulder as you work

at the computer? Now have those eyes in front of you where you can see them. Pointer Eyes V.3 places a pair of eyes in your screen title bar. The eyeballs move to watch your pointer and do tiny tricks if waiting for something to happen.

## Disk Spare

Guess you're wondering how we managed to squeeze all of the games on SuperDisk No. 50?

Well, you should have been wondering, because it was made possible with this ingenious device.

Disk Spare lets you format disks with a whopping 960kB or 984kB available space.

SuperDisk No. 50 uses the Disk Spare we have included here to access the special format.

All the details about how, why and when are included in exhaustive doc files. This is the archive that had to be removed from last month's SuperDisk due to technical difficulties. Apologies for the confusion caused.

## Move VBR

Who is VBR and why would you want to move him?

If your computer uses a 68010 or higher Motorola then it has an extra register called VBR (Vector Base Register). This tells the CPU where the vector table is located.

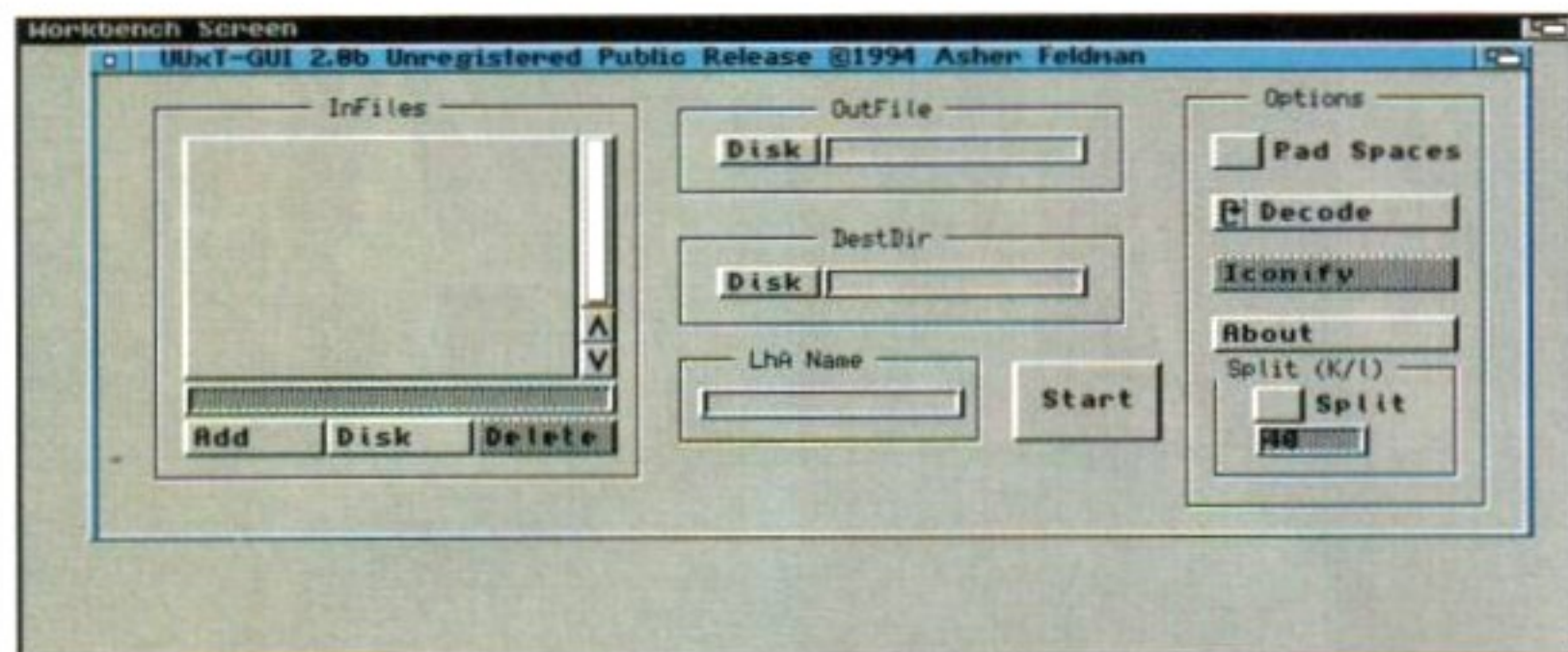
That's who VBR is, but why move him? Well, changing the address can speed up performance time.

To do this nifty trick you will need WB2 or above, fast memory and a 68010 or higher processor.

## Programming Tips

There is plenty more cool stuff from the over-achiever Paul Overaa packed into this utilities disk. Among the files is a Workbench 2 utility that enables you to encrypt and decipher text files, program files and such like. See the Programming Tips in this month's AUI.





Nice GUI, powerful program.

## UUXT

Not a user-friendly name, but an incredibly nice Graphic User Interface. Looking pretty is one thing, but the GUI fronts a very useful program for those comms and Internet buffs among us. Briefly, UUXT makes it possible to send binary files as ASCII - which is often absolutely essential. You can encode files for sending and decode files you receive.

## Filer

Here we were sitting at the **AUI** desks drumming our thumbs and wondering "Where can we get an intuition controlled file manager for WB2 and higher?"

Then Filer sprung from nowhere into our laps and naturally enough, onto your SuperDisk.

As the name suggests, Filer manages files. It copies, deletes and generally does all the tricks you could want to files or directories.

Filer also creates lists and ex-

tracts archives. It can be used as a universal viewing tool.

In fact Filer boasts that it can control your whole system - replacing workbench.

Fire it up and put Filer through its paces.

## Book Corner

Project Gutenberg has the admirable aim of putting 10,000 out-of-copyright books into the public domain by the end of 2001.

They are doing this by converting the books into computer text files and distributing them through Internet and bulletin boards.

Once you skim past the typically American screeds of legal disclaimers, you can read a very timely edition, on your computer screen, of "A Christmas Carol" by Charles Dickens.

Amaze your friends with the literary possibilities of computing. You can read it by double clicking on its icon, or simply boot this disk.

## NO SUPERDISK?

Consult your Newsagent! Explain that you know that **AUI** SuperDisks are irresistible, but that you need them. Seriously though, we cannot be responsible for what happens at the end of a very long chain of different organisations, especially those outside of the country. So what we propose is simple: If you live in

the UK, consult your newsagent as usual. If you are outside the UK, then we'll try our best to help you get the advantages of the SuperDisks. If you don't receive them on the cover, then send us £1 in sterling (International Money Order, etc) to cover postage, etc and we'll get this month's disk to you ASAP. Okay?

## FAULTY DISK?

Please ensure that you have followed the instructions correctly. SuperDisk No.50 cannot be read by a normal Amiga, unless it is used in conjunction with SuperDisk No.49 - you must boot SuperDisk No.49 to use both SuperDisks. If you aren't doing this, it won't work (unless you are an expert user trying it manually). In the event that your **AUI** SuperDisk fails to load - because of a read/write error or physical damage - please return it to the following address for a free replacement.

**AUI Faulty Disks,  
Unit 3, Hampton Road Industrial Estate,  
Tetbury, Glos. GO8 8LD**

Don't forget to include your name and full postal address in block capitals.

## A PLEA

We have gone to every effort to make the SuperDisk easy to use and to ensure that all the programs work on as many systems as possible.

We regret that we cannot take any telephone calls concerning SuperDisk problems. They are just too time consuming and then we wouldn't have time to put the next SuperDisk together for you.

If you do have a problem, try the docs again and refer to your manual, should you need to move any libraries or assign any programs. If you are truly stuck, please write to Amiga Answers.

## BBSs

Thanks to Simon Gardner of Burning Chrome BBS on 0428 727060. Much Gratitude to Jimbob, the supportive Sysop of the excellent Waltons' Mountain BBS, on 081 891 5730. Faulty Towers shouldn't be omitted, available on 0235 535113. If you want to be truly international, then check out the splendid American BBS Smorgasboard, on 205 745 3989.

## Readers' Contributions

**AUI's** SuperDisks are the place to have your programs seen and many of you have already sent us some excellent programs. Keep them coming.

If you've created a masterpiece and want to see it featured on a SuperDisk, send it to: SuperDisk Contributions **AUI**, 48-52 George Street, London W1H 5RF

The shorter, the better, preferably under 100K including any libraries. Unless, of course, it's exceptional!

We look forward to seeing your efforts.

## Shareware

Just a brief reminder that some of the programs on our Coverdisk are Share-ware. This means that you can try them out, but if you regularly use them you should send a registration fee to the author. Registration fees are between £5 and £20 and sometimes the author will send you the latest version in return. You can send an International Money Order, or preferably a cheque but many authors don't accept cheques if they are outside the UK. If you want to risk sending cash in a registered post, it's up to you. We wouldn't advise it but it's your money...

## Compatibility

These SuperDisks will only work on a 2.0+ Amiga with one Meg of RAM or more. If you don't have 2.0 and are still laugishing the 1.3 or less dimension, we're sorry but the only answer is to upgrade. There's no way we could fit nearly four Megabytes onto the OFS disks and these days most programs are Workbench 2 and above anyway. So if you haven't already, upgrade.

All the programs work on A1200 and most on A500+ and up. The best way is to read the docs and try them out. If they don't work, read the docs again and ensure you have updated any libraries that the program needs. Read your Workbench manual to see how to do this.

If it all goes horribly wrong, please WRITE to Amiga Answers at the address shown on page 101. DO NOT RING; we cannot answers queries over the 'phone.

## Documentation

All the plain documents can be read simply by double clicking on their icons. The text will scroll, use the mouse to control it and press Escape to quit. If the docs are in AmigaGuide format, you'll need a computer that can read AmigaGuide files in order to read them without all the nodes showing.

The docs can also be loaded into any WP that reads ASCII, which is just about all of them.





## It takes time to develop the best Frame Grabber for the Amiga.... ....8 years to be precise!

Rombo have invested 8 years of research perfecting a range of frame grabbers for the Commodore Amiga, a range without equal in performance or specification and all at affordable prices, the ROMBO VIDI AMIGA range of Frame Grabbers and Digitisers.

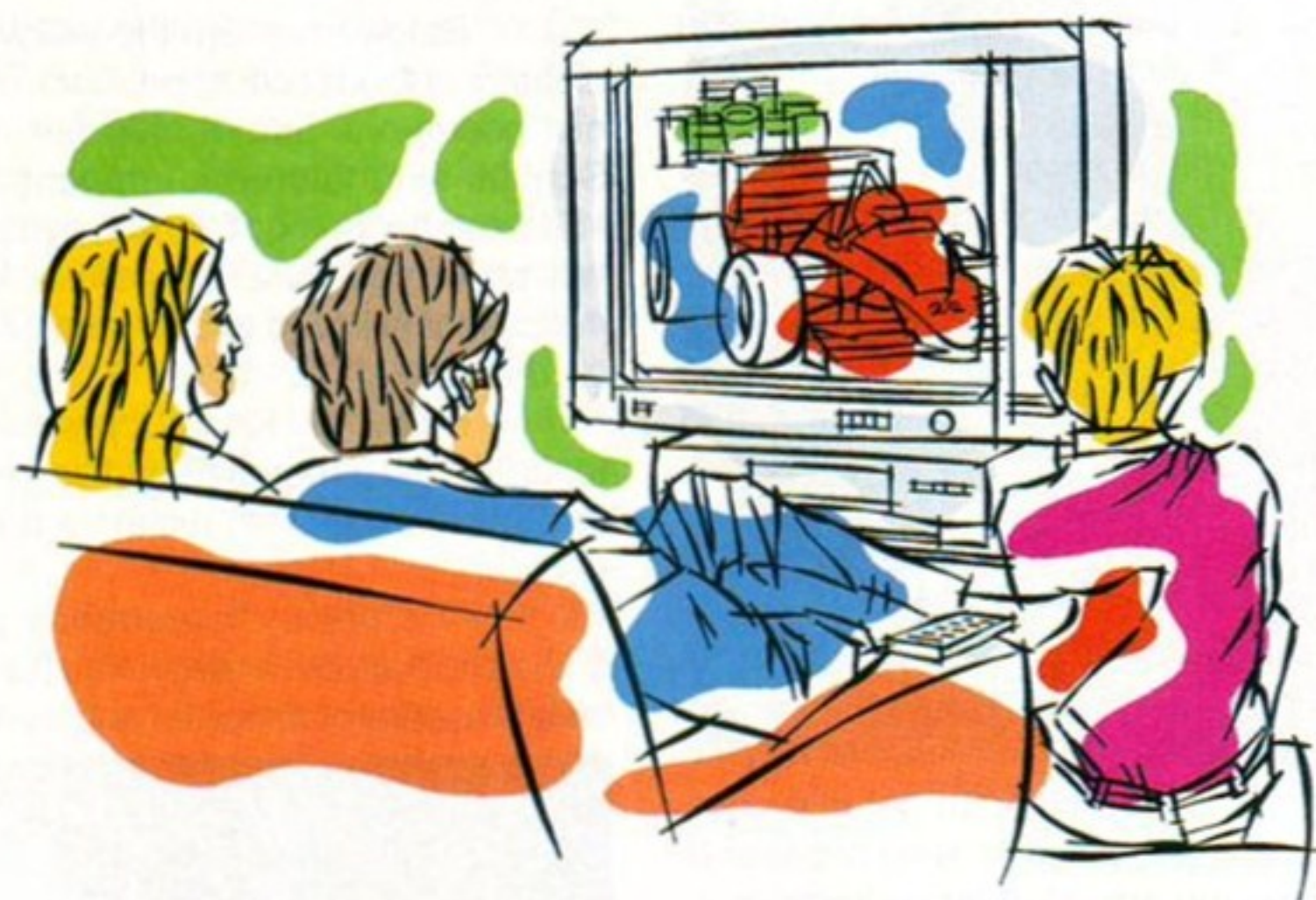
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To grab your VIDI AMIGA or to simply find out more, contact your local ROMBO PREMIER DEALER or contact ROMBO direct.



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# AMIGA

## User

### INTERNATIONAL

# The AUI Great Games SuperDisk

**This month we have four games which will test your skills in space conquest strategy, a nippy and immensely playable Defender clone, a gruelling graphic puzzle and card game simulation.**

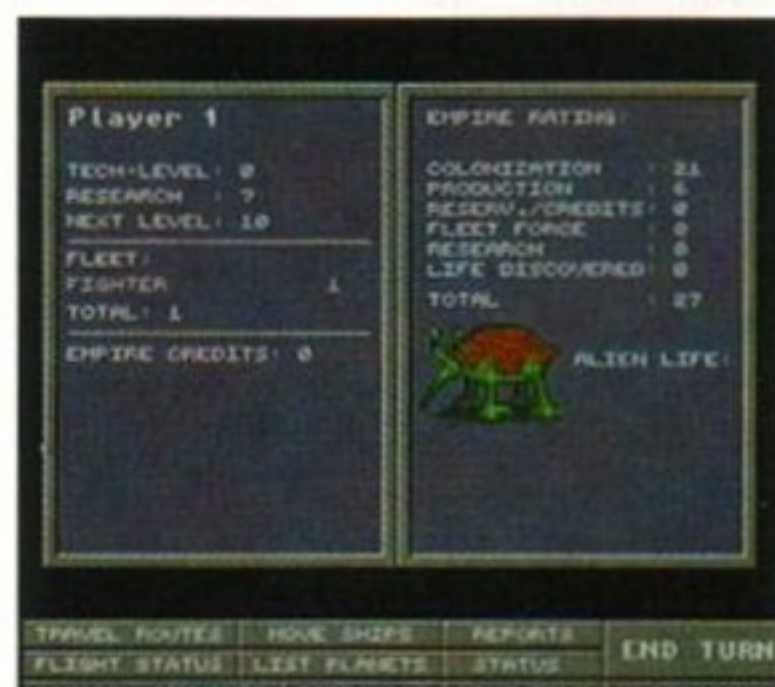
**Mark Blackham leads you through.**

## Instructions

To install the games, simply boot SuperDisk No.49 (yes, the other SuperDisk) and select the game from the menu. The SuperDisk will do everything automatically, so don't worry.

You will need two spare disks, any will do except the SuperDisks themselves. Make sure they don't have anything important on them, as all previous data will be lost.

You'll be asked to put this disk into any drive (DF0: or DF1:). Do so. If for any reason you have problems using your external drive, it may be that it is eating up just a little memory. Turn your Amiga off and reboot the SuperDisk and try again. If you have any problems, read the instructions for SuperDisk No.49.



The planet map - go west young dictator!

(none at present).

Click on the button labeled with a question mark - '?'. Now move the cursor over the planet surface to see a description of each square of available land or the facility which has been built on it.

The bottom left box indicates the number of people in your colony (blue for manual labourers and red and white for white collar office workers). Each person represents 1000 actual colonists. Blue collar workers are needed to run some machinery or work with simple tools on the land. The white collar workers increase your technical level.

Below them are the yellow indicators of food production. Each colonist needs one unit of food per turn. Surplus food (stored in granaries) is indicated on the right. Green symbols will show you of a dangerous food deficit that will lead to starvation if not corrected.

Below the food supply indicator is the raw material production level and the science idea / technology production.

The colony is currently producing nothing but energy. You have a small reserve of minerals and materi-

## Colonial Conquest



Begin your conquest of the Universe!

This new game by Christian Mumenthaler is a brilliant combination of space conquest and Civilisation-style strategy. It is bound to become a classic - and it's all yours free on the AUI Great Games Disk.

Colonial Conquest is a giftware, so send the author a donation if you like it. Details are in the extensive manual we've included on the disk.

The aim is to spread your civilisation through 26 earth-like planets and defend it against a second player

or the computer.

Your planet holds the remnants of a bold attempt one hundred years ago to flee the corrupt Great Empire and start anew. You have now recontacted the Empire as part of your expansion plans and they assist occasionally with extra resources.

When you boot the disk you are presented with the options of reading the docs or manual. Because the game is deceptively simple to start, you can ignore them for the moment by typing 'n' in reply to both questions.

You have the choice of starting a new game, loading a saved game or creating a new universe. Choose new game, then "Easy" from the following difficulty level.

You can then manipulate the "realism" by including or excluding various chance factors like freak meteorite impacts or fleet accidents. Clicking on the buttons will switch them between 'Yes' or 'No'.

First up is the Status Report, which unsurprisingly says there is nothing to report. Click once on the left mouse button and you'll be left with a main planet map.

There are 26 inhabitable planets. Your home planet has a green circle around it, as will all others you conquer and colonise later.

If you progress through the game some planets will be circled by yellow bands, indicating a conflict is imminent because the spaceships orbiting the planet do not belong to the same civilisation as the people living there. A red circle means combat is taking place on the world.

Combat, either on the planet surface or in orbit around planets, is automatically calculated by the computer based on the relative strengths and the technological level of the two opposing forces.

Before you can get into combat, you need a civilisation capable of producing armed defence forces.

Looking again at the planet map, click on your home planet to access control of the planet's surface.

The screen is divided into four boxes. On the top left is the surface itself, already hosting your small first colony. The box on the top left holds some quick access buttons and a list of ships currently orbiting the planet



It's a measly first world but it's all yours



# SuperDisk No.50

als which which to build new facilities like food producing units, mineral mining robots, city structures, space ports and space ships.

The priority is therefore to build some machinery to make food and raw materials.

Move the cursor into the bottom right box and click on the "Producing" button.

Flicked up before your eyes will be a delicious array of things you can make. Stick with the basics for the moment and double-click on the Food-Robot. you will be asked to find a place on the planet to place the machinery. Click on the help button to be given a grid showing the production values for each land area. Choose a place with a high value.

Underneath the "Producing" button will be the Food-Robot and an empty rectangle which indicates how much of the item has been produced. Click in the rectangle to use reserve raw materials to produce the robot. A small box will appear asking how much of the production should use reserve materials. Click inside the rectangle and drag it to 100%.

Now flick back to the main planet map screen with a click of the right mouse button. Click on the End Turn button and you will see the next Status Report. It will tell you that the Food-Robot has been produced. Click on your planet to access the surface screen and you will see your robot waiting patiently. Next to the Food-Robot in the production possibility list was a small blue person. That meant it needed people to run it, so assign some workers by simply clicking the robot.

Now go through the same procedure to make a Mining-Robot. That will ensure a constant supply of minerals to build other vital buildings, machines and defence forces.

Make sure you build a granary, greenhouse, and an energy collector and store before advancing onto things like universities, hospitals, cities and space-ports.

Don't forget to "End Turn" in order to make time progress.

With your first colony humming along nicely, it's time to start exploring your surroundings.

Before you build an Explorer

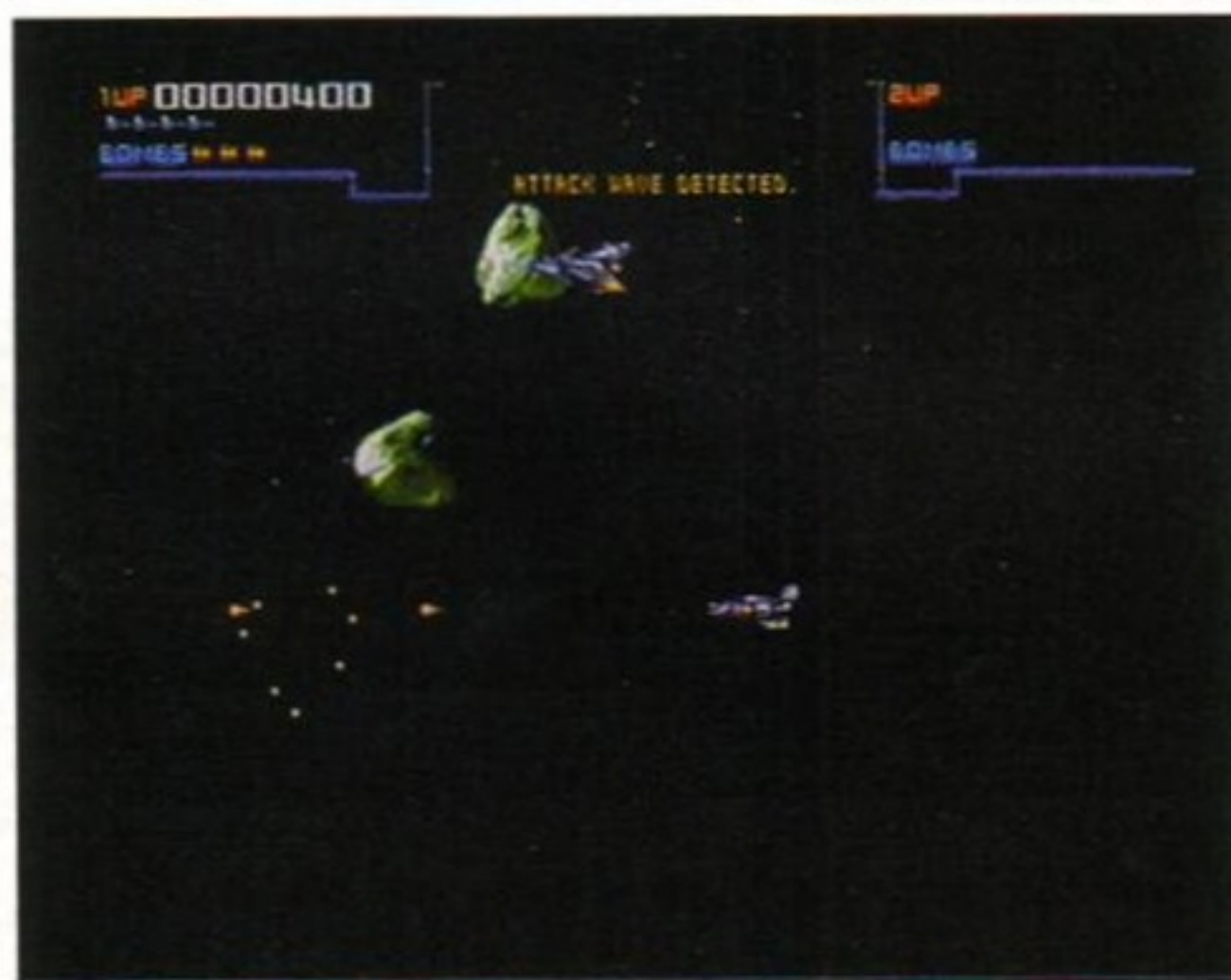
space ship and some military craft to defend against any surprises, you need to build a space port.

To move your ships use the "Move Ships" button on the planet map screen. Make sure you leave the Explorer ship orbiting a planet for a few turns after it arrives in order to fully investigate and discover any lifeforms.

Once planets have been explored, it's time to colonise them. Click on the planet from the planet map screen and under the production button you will see an Establish Colony command. Use it to land a colony ship from orbit and transform the ship into a colony station. You can then on the load up a transporter ship on your first planet with reserve materials, energy and food to send to the new colony and develop it as you did with your very first one.

You are on your own from here on. It's a tough and uncompromising universe! If you need more information, the manual on disk will provide extra details.

## Cybernetix



A horde of tenacious Cybernetix aliens await you.

Trust the ever-resourceful Kiwis to come up with a fantastic version of Defender. Paul and Rod of Vision software, based on the seedy "K-road" in central Auckland, New Zealand, will wow you with this high-class game.

Despite being a country with less than 3.5 million people, Kiwi coders are certainly making a considerable impression on the Amiga world.



These little guys are keen to die.

The most recent commercial Kiwi success was with Skidmarks, but most of us are coming across the Kiwi connection in the PD world - with power software like Cybernetix. It's warming to know that Down Under the Amiga is well supported.

You would expect to pay big bucks for the game as commercial software. Here it is in all its glory - free!

Cybernetix runs along the same simple lines as the tough original Defender but is far more playable. You'll be successfully blasting a wide assortment of vicious aliens within seconds.

Watch the radar screen center-top to help avoid and shoot kill-

er aliens machines like Grabbers, Drones, Droids, Kamikasi and Assassin while picking up power points. The power shields give you a variety of extra fire-power facilities, including bombs that blitz everything on the screen - hit the space bar to activate the bombs.

That's all there is to it, apart from putting aside the next couple of hours!

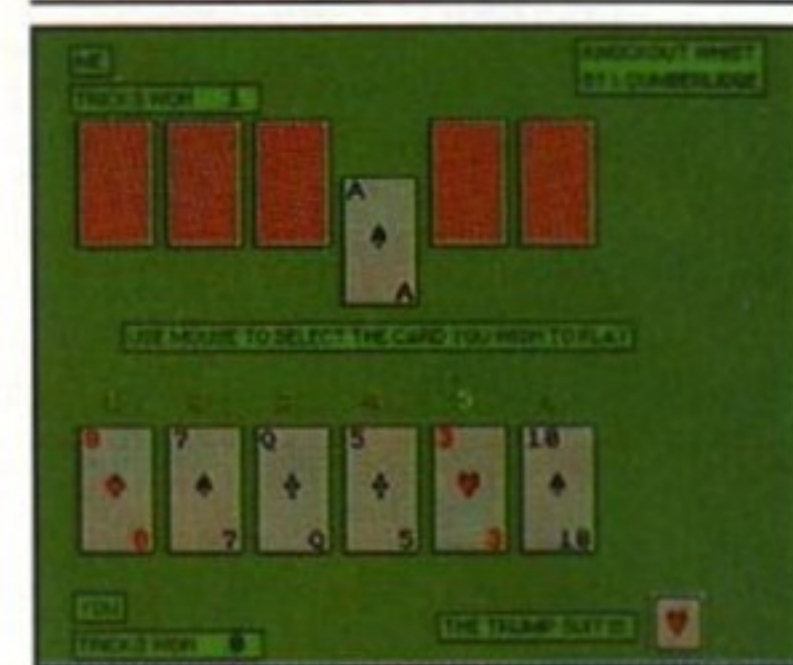
## Revolver

No, not a Russian Roulette simulation, but an intriguing game by Aaron Fisher based on the well-known moving tile puzzle. Instead of moving sliding tiles around in an effort to recreate a picture, you click on tiles to revolve them until they match a design generated by the computer.

You can control difficulty, start level and a unique "Com-

puter Tampering" mode. That mode is a feature which allows the computer to randomly change the pattern at specified intervals. If you need an additional challenge to the game, this feature will really test your ability.

## Whist



Is that a heart up sleeve?

Whist is generally thought of as played by elderly ladies and retired colonels but these days there is reputed a strip version enjoyed by thrill seeking tennis girls to liven up their Sunday nights.

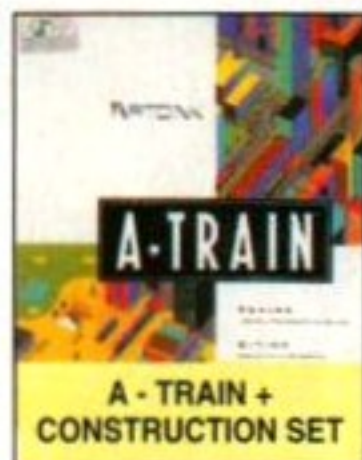
These Whist rules are addictively simple, you'll pick them up very easily.

This version is called "Knock-Out Whist", by Ian Cumberland. You start with seven cards and a trump which is randomly chosen. You have to beat the computer opponent's card with a higher card. A card in the trump suit will always beat non-suit cards. The number of cards dealt to each player falls by one at each hand, and finishes when one player has no tricks at the end of a hand. Anyone for tennis? **AUI**

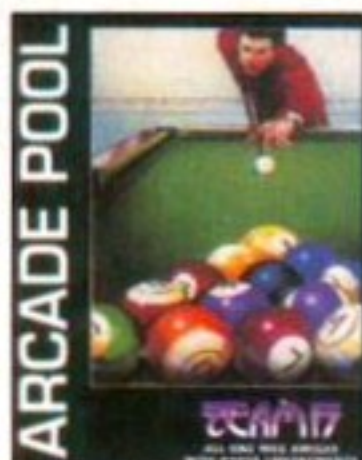




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# Slipping DISKS

**S**lip in a disk and ease that back pain with a new software / ergonomic keyboard package from PCD Maltron.

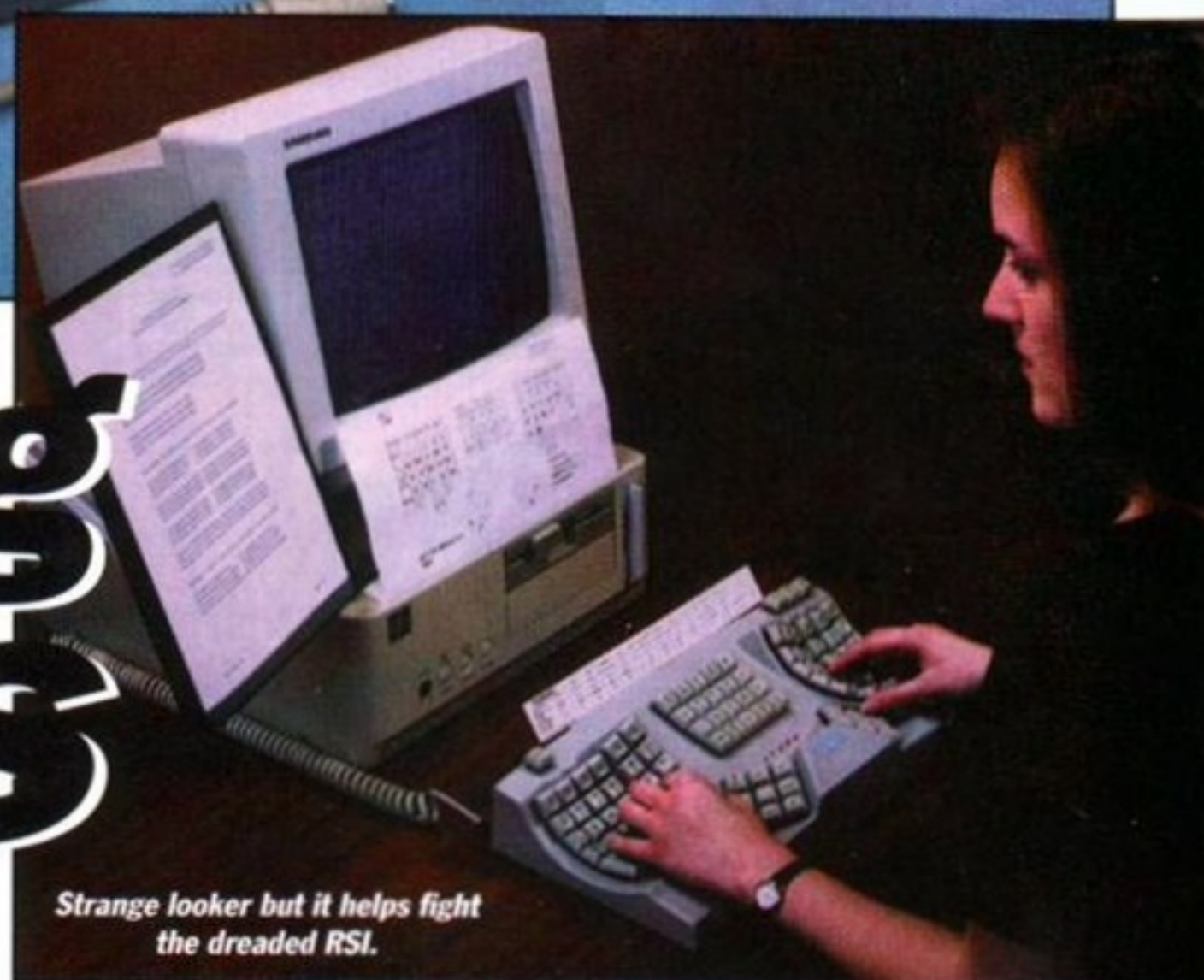
PCD Maltron claim that their "inverted grapefruit" keyboard with "roller coaster" keys and interactive program is the answer to easing Repetitive Strain Injury (RSI).

The pack comes with an "interactive" floppy disk which converts the keyboard from standard to Maltron Qwerty working. It sports such fun features as a hilarious 'burp' when an incorrect key outside the set being practiced is depressed.

It is all designed to develop neuro-muscular pathways from the brain to the fingertips, and avoid the disastrously debilitating RSI.

This "slipped disk" gadget is unfortunately only for those undeserving PC owners. Isn't it time that one of the Amiga add-on suppliers took pity on Amiga users and gave us one too?

Contact PCD Maltron, 15 Orchard Lane, East Molesey, Surrey KT8 0BN.  
Tel: 0818 398 3265.  
Price £39.00.



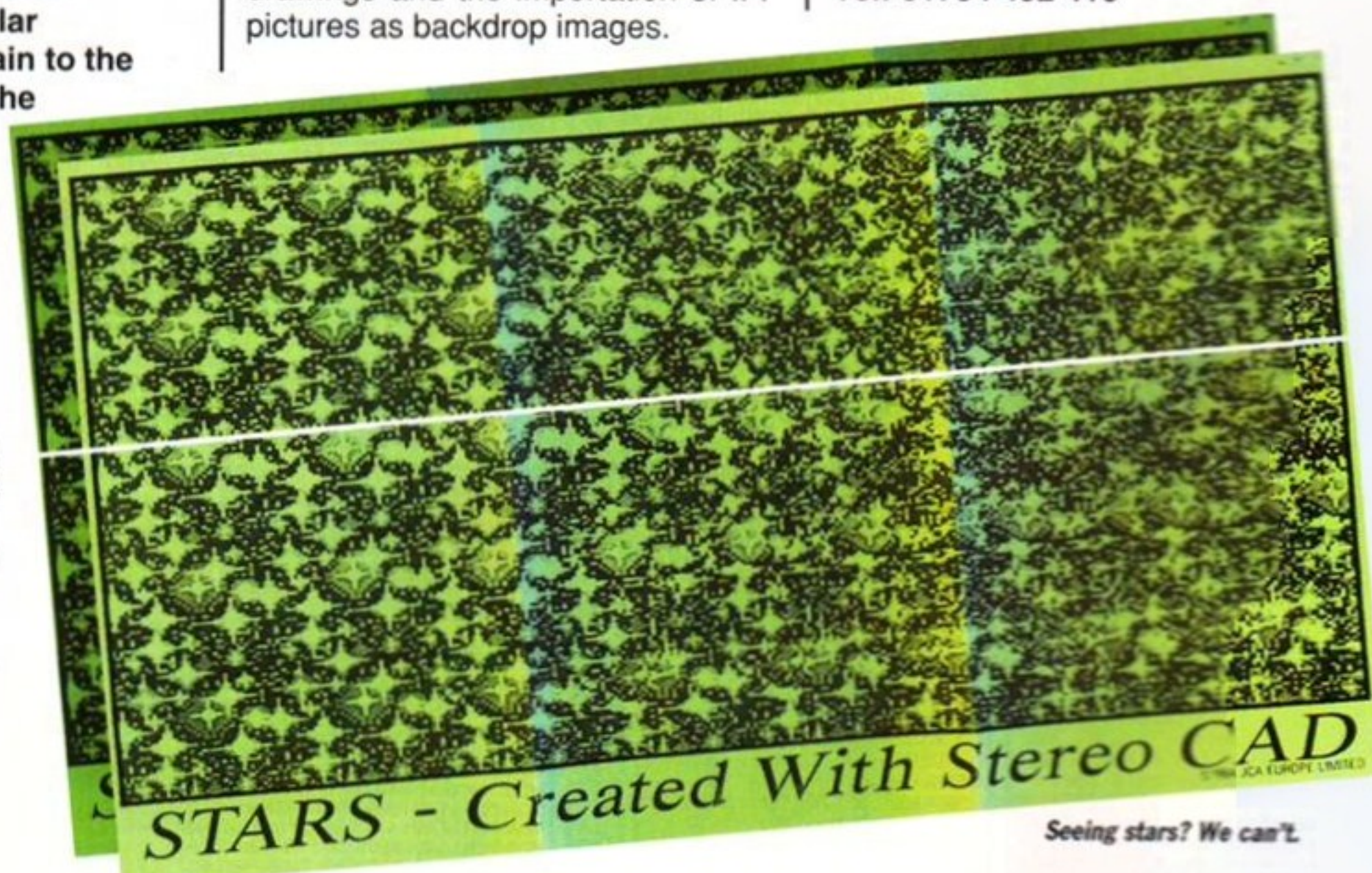
Strange looking but it helps fight the dreaded RSI.

# Seeing Double

**S**tereograms have spread everywhere in the last year or so. You know the ones - if you cross your eyes, look over your shoulder and scratch your head you see a 3D image suddenly appear. Stereo CAD is a new commercial package from JCA Europe for creating your own on the Amiga. Features include user definition of various 3D 'sliced' objects such as spheres, pyramids or tubes, rotation and scaling of shapes, text or freehand drawings and the importation of IFF pictures as backdrop images.

Random Dot Stereograms have already been used in magazine advertising for gin - apparently they are easier to see after half a bottle - and who knows what other commercial applications may be feasible. With a package like this it is possible to even create animated stereograms on your Amiga. (Opticians are delighted!)

Contact: JCA Europe Ltd.,  
30a School Road, Tievehast,  
Reading, Berkshire, RG3 5AN.  
Tel: 01734 452 416



STARS - Created With Stereo CAD  
Seeing stars? We can't.



# FAVOURITES ON VIDEO CD

**C**D Vision are releasing eight new VideoCDs at the budget price of £9.99 each.

Four are VideoCD collections of classic cartoons: 'Bugs Bunny and friends' (and hopefully enemies too), 'Daffy Duck and friends', 'Popeye' and 'Superman'.

Three others are VideoCD conversions of nature programs from the award-winning Eyewitness series. Each one looks at the habits, habitat and lives of the Shark, Horse and Cat respectively.

The odd one out is Rod, Jane and Freddy Live on Stage, the polymath children's television presenters who made their name on Rainbow, in fine form in their successful stage show. These add

to CD Vision's current range of £12.99 VideoCDs which include 'Victimised' with Sharon Stone ('She's insatiable... He's clinical' says the blurb), 'Return of the Dragon : Bruce Lee Fights Back from the Grave', 'Above the Law', a collection of car racetrack crashes, and 'Rock Legends' featuring clips of musicians like Jimmy Page and Stevie Winwood.

If you are one of the elite few with CD 32 and the video cartridge too, well you can have plenty to gaze upon.

**Contact:**  
**CD Vision, The Piazza,**  
**Covent Garden,**  
**London WC2E 8HA.**  
**Tel: 0171 240 7764**



*A busy office needs a capable printer.*

## Laser Speed

**T**hose of us who grimace every time our dot matrix printer chugs and whines its way through a page an hour probably can't afford the speedy Dataproducts LZR 30 laser printer.

But we can drool at the picture. Their new thirty pages a minute, A4/A3 format, "enhanced versatility" (which probably just means it's better than before) laser printer costs under (just) a cool £1200.

It's apparently been designed to address the volume output requirements of growing numbers of computer system networkers.

If you're one of those, the printer is available from Continuum Specialist Technologies Ltd, who say it is the cheapest network printer solution in its capacity, currently available.

**Continuum Specialist Technologies, Chalgrove, Oxon, OX44 7XZ. Tel: 0865 891 666**

## A Link in the Chain

**D**ixons, the retail group who originally united many Amiga users with their machines (ahh, remember that day?) are setting up a new chain of stores called 'The Link'.

Dixons tell us the stores are dedicated to selling communications technology and services.

The demolition of barriers to international information communication continues apace and Dixons obviously spy a sales angle.

There is undoubtedly a growing market in providing tools like mobile phone services, satellite TV services and on-line computer services as well as common or garden faxes, pagers and phones.

Although they will stock hardware, the focus will be on services. Dixons are initially opening four stores. The first in Kingston, Surrey, followed by new shops in Enfield, Chiswick and Lewisham. Natural junctions for the information highway, all of 'em!

## A Word in Your Ear

**W**ordworth, the acclaimed Amiga word-processor with DTP aspirations has been updated, this time to 3.1 and 3.1SE (sounds like 'go-faster' naming for a car).

Wordworth 3.1 is polished and debugged version of the disastrous 3.0 release, with a few new features like landscape printing as well as portrait, on-line help tutorials and faster speeds on many operations such as 'Replace'.

Wordworth 3.1 SE is a special new compact version of Wordworth 3.1 for A1200 users. It will fit into the A1200's basic 2 Mb, only requires one disk drive and comes at compact price of £49.99.

Digita International who produce Wordworth have also released two other 'home office' type packages: Datastore and Home Office.

Datastore is a database, with a Wordworth style interface and 'feel' to it, whereas Home Office is a bundle pack containing Day-by-Day, Home Accounts, DGCcalc (get it!) and Mailshot. So now you can sell your PC, buy an Amiga with some software like this and then take a holiday in the Caribbean on the proceeds to celebrate.

**Contact: Digita International,**  
**Black Horse House,**  
**Exmouth, EX8 1JL. Tel: 0395 270273**

## Recordable CD's?

**C**Ds would be an ideal universal storage medium, if only you could record on them. It's been this lack of recordability that has kept other media like music cassettes and floppy disks as popular as ever.

Scientists have been grappling with this fundamental drawback (if you take no notice of copyright) to the CD format for years and last month the giant Japanese electronics corporation Matsushita revealed the latest attempt at a commercial CD player which can also record.

The machine doesn't actually record onto CD, but instead onto a separate 650 MB optical disc. This disc is coated in a material which can be changed from an amorphous to a crystalline state with a laser beam. Binary data is recorded as microscopic amorphous/crystalline dots.

The alternative recordable optical disc technology is the magneto-optical disc which uses a laser beam to change the magnetic state of the recording surface using a technique called Kerr rotation, but magneto-optical discs currently have a maximum capacity of only 230 Mb. It's estimated that by 1996 magneto-optical disc capacities will have risen to the 660 Mb or so needed to record a whole CD.

Sony already market a Minidisc data drive, as a development of their audio minidisc, but they face a public who now feel reasonably comfortable with the CD format and it might take a lot of time and marketing money to 're-educate' consumers. Matsushita's machine scores in that, with its capacity and physical size, its opti-

cal discs can claim to be a kind of recordable compact disc.

The cost is being estimated at around £650 but will no doubt fall very quickly.

## Too much info?

**P**lans for 150-channel television are well underway. National Trans-communication in the USA recently demonstrated a system which can squeeze eight television channels into the space now occupied by one.

This channel hopper's dream is based on digital compression technology which transmits eight television channels onto half a satellite transponder - the capacity normally used for one channel. However, no one has done enough market research to know for sure that consumers will be prepared to pay for the information overload.

## External Clock Cartridge

Siren Software have announced on new whizzo paper that they are supplying an external clock cartridge for the Amiga. The Clock Cartridge, they told AUI, will work on any Amiga computer and fitting it does not invalidate your warranty. It plugs onto the disk drive socket or if you already have an external disk drive fitted, it just plugs onto the back of your external disk drive. The clock has the time already set on it and is priced £19.99 inc. VAT.

**Contact: Siren Software, 178 Bury New Road,**  
**Whitefield, Manchester M45 6QF. Tel: 0161 796 5279.**

*She'll just keep ticking.*





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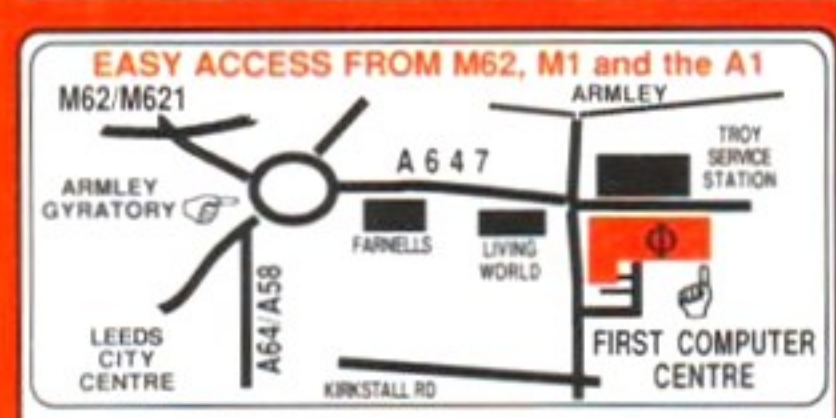
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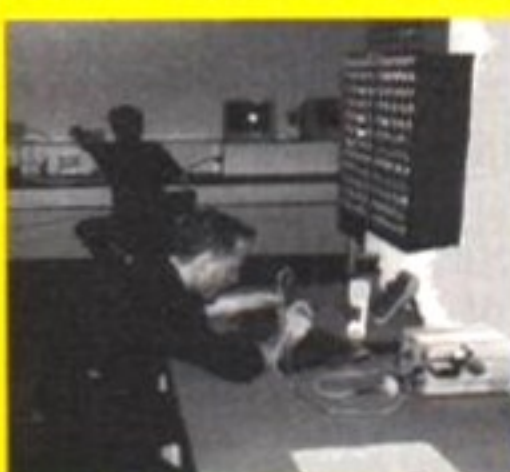
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50	£20.99	£22.99
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1000	£324.99	£365.99

Branded disks come complete with labels

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Many CD32 titles are compatible with other Amiga CD-Rom drives

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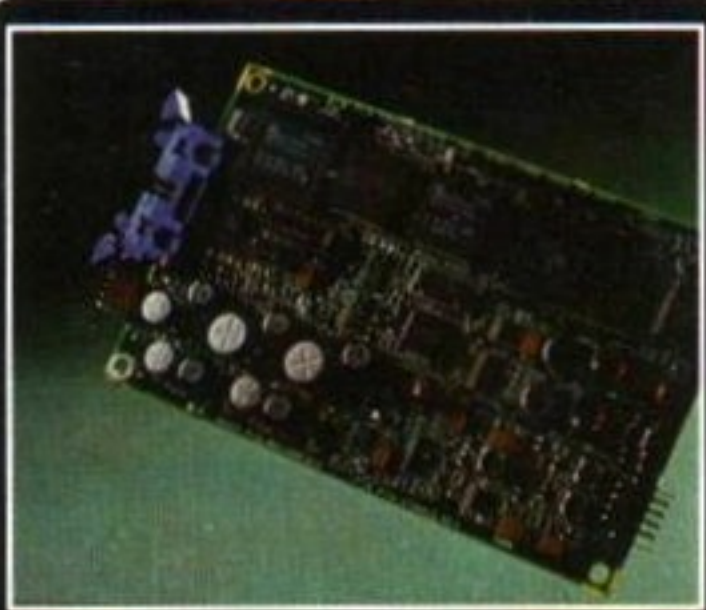
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 Wordworth 2 AGA inc Print Mgr Special low price!.....£34.99  
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## Touch Me!

**E**lo TouchSystems, Inc. of California are bringing out a new touchscreen controller to control their Intellitouch touchscreens which plugs into the back of virtually any standard monitor. The controller is powered by the monitor itself and connects to the computer via a serial cable.

With the right driver software installed the controller can be used with an Amiga, plugging directly into the rear serial port. This makes high quality Intellitouch clear glass touchscreens available for the Amiga for public multimedia information services, point-of-sale applications and other uses. The Amiga's excellent low-cost multimedia capabilities make it ideal for this sort of use, as proven in multimedia exhibitions like the London Transport museum and the Halifax Children's museum. **Contact: Elo Touch Systems, Inc., 41752 Christy St. Fremont California, USA. Tel: 510 651 2340 or Elo TouchSystems UK, Tel: 0794 323 685**

## Holiday Clips?

**T**ucked away in the privacy of their bedrooms, Amiga users find some very diverse and exotic uses for their machines. So it's always hard to say exactly what people use Clip Art for but there does come a time when you suddenly find that you require a picture of, say, a deckchair, and a good Clip Art disk solves your problem.

Artworks provide one of the best, low-price Clip Art collections available for the Amiga and they have just added another excellent disk, Holidays. Here you will find virtually every icon of the British on holiday in crisp



Only six more months until summer...

black-and-white hi-res bitmapped images. They can be imported into any DTP or video program on the Amiga. Deck-chairs, sandcastles, ice-creams and even a bouncy castle are among the 116 images included.

**Contact: Artworks, 3 Pond Side, Wootton, Ulceby, South Humberside, DN39 6SF. Tel: 0469 588 138**

# Expanding The Mind

**T**he software house Mindscape is growing internationally. It has acquired two new companies: the California-based Strategic Simulations, Inc. and the French software developer Atreid.

SSI is a developer of computer wargames, sports simulations and fantasy role-playing games.

Atreid on the other hand is a French entertainment software developer whose products include LibSys, a cross-platform development system, and 3DBioMotion, a real-time 3D animation engine. These acquisitions will add to the three existing Mindscape divisions in the US, England and China.

Mindscape itself is part of a larger plot. It is a subsidiary of the London-based international media group Pearson plc. who bought it when they acquired Software Toolworks of the USA for a cool - or rather burning hot - \$300 million plus. They are now winding down the Software

Toolworks identity though not its activity and calling the who shooting match - sorry they didn't generally sell shoot 'em ups but are greatly into edutainment Cds - none other than Mindscape. Pearson also have stakes in Thames Television, Penguin Books, BSKyB, Addison-Wesley Publishing Co. and the Financial Times and are one of the biggest of the London-based multi-media conglomerates which dominate the media which provides us with so much of our daily information fix.

And what have they done now? Bought Future Publishing whose thirty or so titles they have acquired for £52 million. Now we come to think about Pearson are now competitors of AUI. They'd better watch. We take no prisoners..

**Contact: Mindscape, Priority House, Charles Avenue, Maltings Park, Burgess Hill, West Sussex. RH15 9PQ. Tel: 0444 246333**

## Jules far fetched Verne

**A** newly discovered novel by Jules Verne was originally rejected because the publisher thought it too far fetched. Don't laugh, modern-day Jules Vernes are probably being turned away by publishers right now.

Set in 1963 and entitled "Paris in the 20th Century", the book tells of a gloomy young poet who becomes a homeless vagabond in a society dominated by finance and technology.

Verne predicted the invention of the fax, the underground railway and the electric chair! Of course, they would reject him, wouldn't they?



Amiga to roar?

## Dino Screen-Saver

**S**creen-savers are often more interesting to watch than the much of the stuff for which people actually use computers. Here at AUI there is a particularly mesmerising one with 24-bit pulsating colours that suck in passers-by and

transfix them for hours like hypnotised chickens until they are rescued by someone touching the mouse.

Now for people who like dinosaurs there is a Jurassic Park screen saver for the PC with clips from the film, dinosaur roars and

amazing dino-facts. £19.99 seems rather a lot to pay to see what is in effect an advert for the film, but it beats having Windows logos going round and round.

**Contact: Impact. Tel: 01256 847 447**

## Wallace and Gromit Get Personal

**A**ardman Animation, the Bristol based animators who recently won an Oscar for the Wallace and Gromit film "The Wrong Trousers", have now added six of the new PC based DPS Personal Animation Recorders to their existing eight Amiga PARs.

And Cambridge Animations have integrated the Personal Animation Recorder (PAR) into their new release of 'Animo' animation system

version 1.5. The Par board is making the kind of impact in the PAL world that the NewTek Video Toaster made in the NTSC video studios of the USA. It just shows what can still be done with the Amiga even in a world increasingly dominated by the PC. Roll on more Pars and Par-like developments.

**Contact: Digital Processing Systems Ltd., Riverside Business Park, Unit 2, Dogflud Way, Farnham, Surrey GU9 7SS. Tel: 0252 718300.**

## Biggest club in the world?

**S**pecial Reserve should contact the Guinness Book of Records. The discount games club claim to be the biggest computer club in the world - with 231,244 members.

Reflecting this world-leading growth, they have just moved their Sawbridgeworth shop next door to larger premises. (Wembley Stadium next?) The new shop launch saw an exclusive demo of Power Drive, available for the Amiga and CD32.

Special Reserve have taken a lead from the marketing techniques of the book clubs. You know the ones that advertise in colour supplements,

offering sweeteners like a discount copy of the illustrated 'The Adult Art of Love' if you join? The Special Reserve "once-in-a-lifetime" offer is a double pack of the action arcade game Speedball, with the sequel Speedball 2, for the A1200, at £9.99.

For the membership price, which starts at £4, you receive a two-monthly colour brochure which includes lists of new games, special offers and discount vouchers and there is no obligation to buy.

**Contact: Special Reserve, PO Box 847, Harlow CM21 9PH. Tel: 0279 600205.**



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World of Amiga show

# Photogenics<sup>TM</sup>

*Break through the barriers of your imagination.*

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Natural paint tools like Chalk, Pen, Pastel, Marker and Airbrush.

## *The ultimate 24-bit graphic and manipulation package for any Amiga 1200 or 4000\**

*Natural paint tools - Airbrush, Chalk pastel, Pencils and more;  
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Edit multiple images simultaneously in resizable windows;  
Paint in 24-bit with realtime HAM-8 preview  
- no 24-bit graphics board required.*



From

**Almathera**

*\* Photogenics will work on any Amiga with a minimum of 68020 CPU, 2Mb RAM and Kickstart 3.0.*

Photogenics and the Photogenics logo have Trademarks pending for Almathera Systems Ltd 1994.

Southerton House, Boundary Business Court, 92-94 Church Road, Mitcham, Surrey. CR4 3TD. England.  
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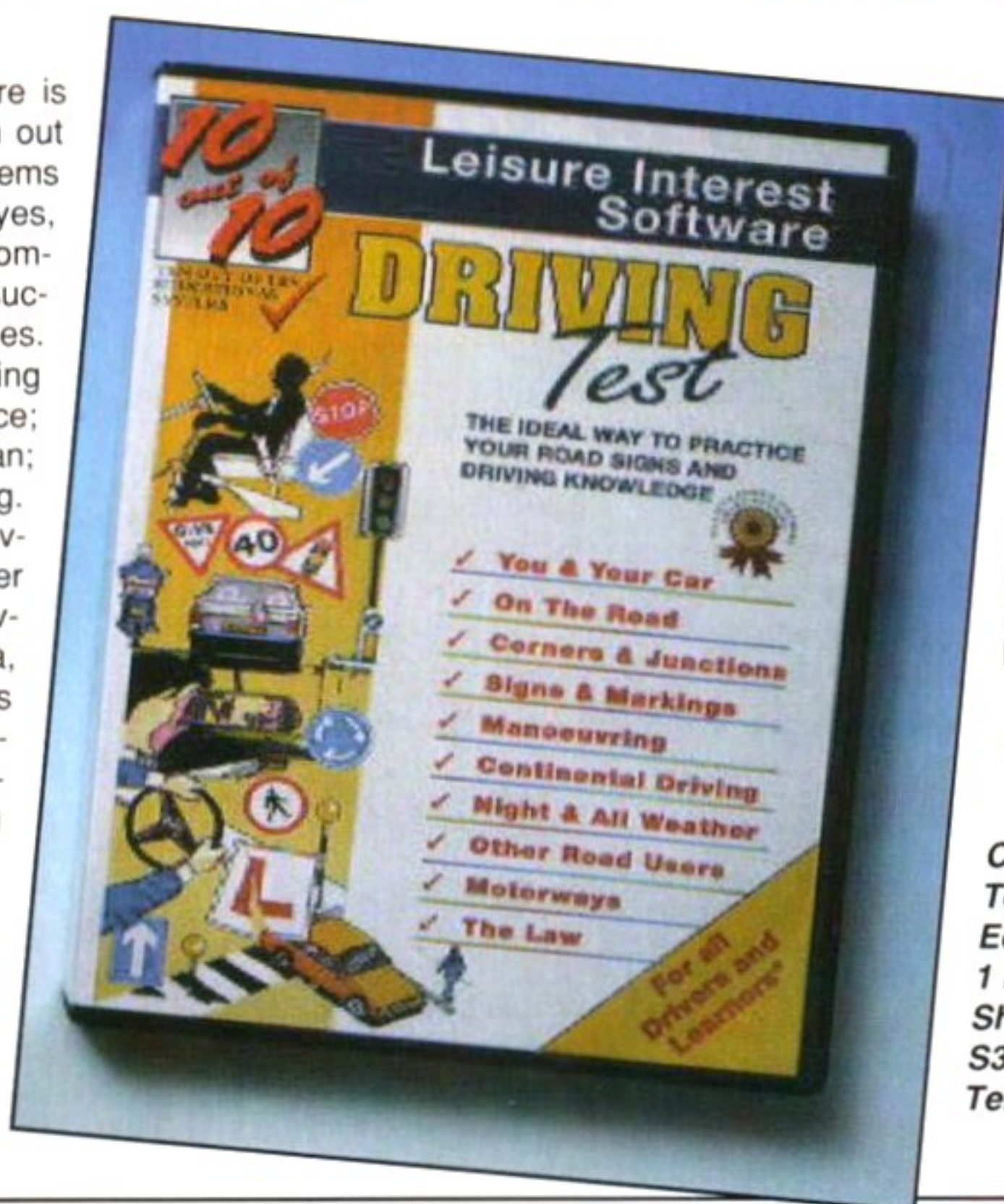


## 10 More for Ten out of Ten

**E**ducational software is big business. Ten out of Ten Educational Systems have told **AUI** of ten, yes, ten, new releases to complement their highly successful educational series. New titles include: Driving Test; Essential Science; Essential Maths; German; and Structured Spelling.

The 10/10 Driving Test is a computer aid to passing your driving test for the Amiga, PC and Acorn. It uses gameplay and multimedia interaction in an attempt to make learning more interesting and entertaining.

The questions which Driving Test asks, Ten Out Of Ten told **AUI**, cover most aspects of driving



from Night and All Weather driving to Continental Driving and Motoring Trivia. Several multimedia updates of old memory games like Patience and Pelmanism have been implemented to make fact-retention easier. Sounds like a safer way to learn to drive than the Formula One Grand Prix around the M25.

*Learn something new every day with Ten Out of Ten.*

**Contact:**  
Ten Out of Ten  
Educational Systems,  
1 Percy Street,  
Sheffield,  
S3 8AU.  
Tel: 0742 780370.

## EYE EYE Watch Out

**A**re you looking a little bleary-eyed after marathon sessions in front of the Amiga screen? Treat your eyes to a pair of Computer Optics glasses from Gepro. The specs are designed to block harmful ultraviolet and electromagnetic screen emissions.

Gepro are offering these wonder-specs at a Christmas discount price for **AUI** readers of only £24.99 (£1.99 P+P), saving you £8.00. They will even throw in a free pouch and safety lanyard (worth £4.00).

The clip-on version for people with prescription glasses is also available at a discount price of £21.99 (£1.00 P+P), saving you £8.00. They also come with a free pouch worth £3.00. It's probably worth keeping your eye on this product!

**Contact:** Gepro Co. (UK), Dept 53, Freepost, MB 1927, Keston, Kent. BR2 6BR.  
Tel: 0689 851206.

## COR!

**C**ore Design has been taken over by CentreGold plc, the parent company of US Gold. Core will continue with the software publishing business from their Derby base. Core started publishing its own products for the Amiga in 1990 but will look to extend its hardware development base during the coming months. Jeremy Smith, founder of Core has been appointed to the board of directors of US Gold, with an executive overview role of Core design.

The rumoured amount that it's costing is a mere £6 million with just £2 million or so going to poor old Jeremy. It just shows what you can do with hard work and good programming doesn't it? It also shows what can happen when the cost of the development of games gets more and more expensive and the big swallow up the small. Centre Gold's most recent financial results show that it's continuing to grow even bigger profits too which made the stock market shove its shares up after they had drifted down as the City lost a little confidence in the newly floated public company. Why did they lose confidence? Because the stock market doesn't understand what's going on in our very peculiar electronic world - especially about games. Perhaps they should stick to buying shares in Marks and Spencers.

## The Third Dimension

**T**he Third Dimension is a group for users of 3D Construction Kit 1 and 2, and produces a monthly diskmag for Amiga users. The disk is packed with tutorials, helplines, letters, problem pages and answers (just when you thought the Agony Columns were dead), a user group game, 3D environments, data, areas, and other stuff you need to be among that unique breed of advanced 3D users. There are even a few jokes chucked in with the routines and brushes. (Jokes? Who ever heard of jokes connected with the Amiga) All this for only £1.50 for the monthly disk.

**Contact:** Tony Hartley, 19 Kipling Close, Lockwood, Huddersfield, Yorkshire. HD4 5HA.  
Tel: 0484 460888.

## Money still matters

**W**e are all going to need some way of coping with all that money flooding in from the economic upturn (Oh really?) or the Government would have us to believe.. What better way of managing your cash in the home or small businesses than on your trusty Amiga?

Digita's Money Matters - which you had the chance of using from a recent CoverDisk on **AUI** - includes the HIP (Human Interface Protocol), a graphical environment which integrates Workbench and automates the work.

That means you can spend more time earning and spending money, and less time calculating how fast it is disappearing. Money

Matters handles standing orders, direct debits and automatically warns if, for example, bank charges are likely or if you have exceeded your credit card limit.

Because it can also produce business style reports and VAT calculations, Money Matters has now come down in price and is, say Digita, very suitable for clubs and charities. Price £34.99.

**Contact:** Digita International Ltd., Black Horse House, Exmouth EX8 1JL.  
Tel: 01 395 270273.

## Quotes of the Month

*"The Internet is strange. It doesn't make any money. It is transnational, beyond anyone's control. It is the great anarchical event."*

**William Gibson, author of "Neuromancer" and inventor of the term "Cyberspace"**

As both a writer of futuristic fiction and someone who has influenced the language, William Gibson, probably understands as well as anybody what strange changes are

taking place in our world. What no-one knows is how the Internet, "the great anarchical event" will really do to the supposedly strong and long established institutions that rule our world. After all, it has been said that the photocopier and the cassette recorder did more to cause the fall of Communism and the Berlin Wall than any previous political or military efforts of the West.

What will transnational communication "beyond anyone's control" bring?



## Zappo Compatibility

**P**rofessional Write, Windows Write, Lotus Amipro and ASCI I, the CD32/CDTV titles have been declared compatible with Zappo, Overdrive and Archos branded CD drives.

To prove their claims Capri CD Distribution have wisely sent **AUI** their latest compatibility list on a PC formatted disk.

The disk list was compiled using an A1200, Zappo drive, Microbotics 4MB upgrade, 200MB Hard-Disk, Workbench 3.0 ROM & Archos install software version 7.0. Unfortunately, some machine configurations may alter compatibility, so you had better check with Capri CD.

**Contact: Capri CD Distribution, Capri House, 9 Dean street, Marlow, Bucks SL7 3AA. Tel/Fax: 0628 891022.**



## Happiness Is A Warm Mouse?

**L**ogitech want you to experience the latest mouse sensation - Mouseman (there is no sexism in the computer industry).

Their sensual mice come in exotic styles like deep wood, black chess, silver pearl and blue leopard. Each style has a distinctive pattern, texture and an aesthetically pleasing shape.

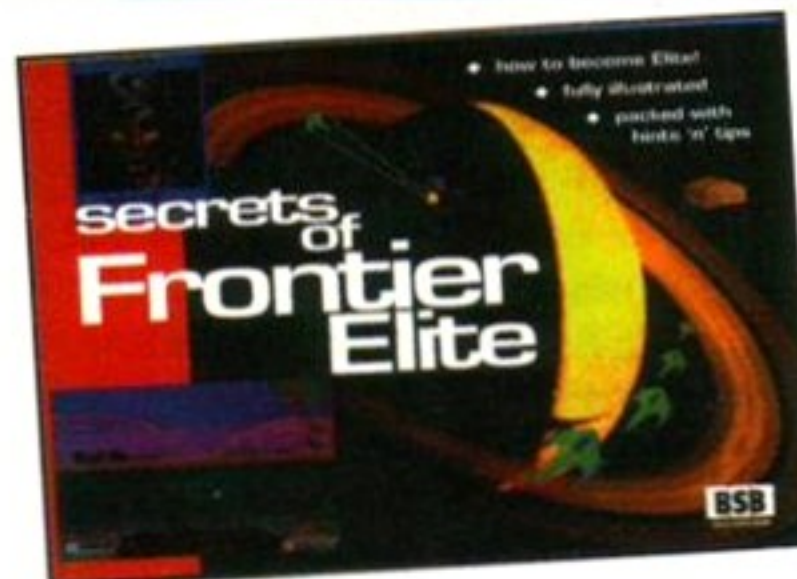
The sensations of using one are well evoked in Logitech's advertising campaign - which features a woman softly cupping a mouse over her left breast. She's not afraid of mice, is she?

**Call LOGI 0344 894 300.**

## Blittersoft's New Two

**B**littersoft are distributing two new products for the Amiga. The Piccolo SD64 graphics card is, they told **AUI**, a new generation card based on the Alpine graphics chip with speeds up to 35 times faster than the old Piccolo.

It includes a graphics card for the Zorro II and Zorro III bus (autosensing) - 64 bit and state of the art VGA controller with 64 bit graphics engine and memory interface. Blittersoft say the Piccolo SD64 will have Emplant support ("under development" - and how many times have we heard that before?) which will offer the fastest video solution yet, with fast TrueColour (24bit) modes. Price - SD64 2Mb £349.95, SD64 4Mb £399.95.



The secret to Elite is behind this cover.

## Lola Custom Genlock

**L**ola is bringing out the 1452-01 custom chip - which is to be included in a range of new genlock products. The enhanced control circuits provide high stability Amiga graphics genlocking and the enhanced horizontal system maintains PAL chroma-luma offset in local mode. It includes digital delay compensation and keyer control for high accuracy graphics insertion in video.

## Secrets of Frontier Elite

**J**ust released from the prolific Bruce Smith publishing empire comes "Secrets of Frontier Elite". If you're having problems mastering the mammoth game, then you might need a guide. Bruce has produced just such a guide for any budding pilot who wants to become Elite, or simply incredibly rich. Who doesn't?!

For Elite aficionados the handbook, written by Tony Dillon, will be an inspiring purchase, full of touches which add to the cult of the game, the science, and science fiction. There are pictures

## Lola's New Unveiling

**L**ola have told **AUI** of the arrival of a successor to the MiniPROL1000 genlock - award winner of the 1993/4 Camcorder User Best Peripheral award. The new product, the L1500 adds additional functions to all the features of its predecessor through the use of the Lola 1452-01 Custom Genlock Chip. This integrated circuit allows a genlock to be built from just two chips.

It features separate faders for graphics and picture - giving the user more creative control and full PAL Bandwidth video Encoder - ensures no degradation of input video signal and highest quality graphics output.

It also has GRBA through port with TTL level horizontal and vertical sync outputs to replicate the standard Amiga video connector, enabling a wide range of monitors to be connected. RRP £176.25.

**Contact: Lola, 57 St Marys Rd, Leicester. Tel: 01858 433501**

## FOLIOWORX

**F**rom the manufacturers of PhotoWorX comes FolioWorX, the only licensed PortFolio CD player on the Amiga computer. Apparently, PortFolio technology is the next step into the multimedia age, which it might find rather crowded.

FolioWorX is available for both the Amiga computer range on disk and also for the CD-32 on a CD ROM. Kodak's brand new PortFolio format incorporates the quality of 24-bit PhotoCD with 16-bit sound to give interactive sound and vision. Both Amiga disk and CD32 versions are £49.95.

**Contact Blittersoft, 40 Colley Hill, Bradwell, Milton Keynes, Bucks, MK13 9DB.**

**Tel: 01908 220 196**

## BBS CORRECTION

Please note that one wrong digit slipped into the number we gave in the last issue for the excellent Waltons' Mountain BBS.

It should read: 081 - 891 5730.



## WYSIWYGGLE!

Hanging about in our W1 local telephone boxes, as we often do, AUI staff discovered that the world's oldest profession has adopted the language of computing. "What You See is What You Get" revolutionised Desk

Top Publishing". Now the term WSIWYG is popping up (so to speak) in sex services sold from London telephone boxes. WYSIWYG? Can Marcia handle hard drives?



## No Time for Reading

The computer games magazine market has fallen dramatically according to the figures for January to June 1994. It looks like computer games players have less time to read, or maybe they've just forgotten how to.

Down went GamesMaster and Sega Power, both from the Future stable (will they have to rename it "Past") and Super Play and Total also dropped readers.

Console titles from Emap Images also slumped badly, with Computer and Video Games losing a seri-

ous 51.6% of their readers while Mean Machines Sega fell 42%. Top of the sellers from these groups, Nintendo Magazine System, with its snappy title, lost 35% to 70,893.

Has the boom in the console comics run out of steam? No-one really knows why the falls are happening at this time. It would be too much to think that the Great British Computer Magazine Reading Public are really getting tired of a diet of slushy triviality associated with handheld electronic toys, wouldn't it?

## More Able to Cable

More people have access to cable, but not many of them want it, according to the latest survey from the Independent Television Commission. The number of cable operators has risen from 62 to 69 in the last year, but the take-up rate is unchanged at 20%. The ratio of subscribers taking the subscription packages to the number signing up for the basic package is falling.

Telephony - that's the ability to use your phone through the fibre optic cables from the cable TV companies - appears to be a big cable driver, with 461,032 lines installed up from 190,386 in July. Nevertheless, there are suggestions in the financial circles of the telecommunications world that Media Mogul Rupert Murdoch is hurrying to get some very big bucks out of floating SKY TV on the stock market - he's hoping to grab for a billion dollars from the deal - and to do it before cable really takes off and queers his satellite company's market. And it's down the cable line that those that much vaunted video on demand and others services will flood toward your TV or, of course, your Amiga monitor.

## BT's New Pipe Dream

BT's plans to launch an all fibre-optic network are being hampered by regulations preventing it from offering broadcast entertainment services. Undaunted, the brave BT gave their first public presentation of what is to come for the 'experience society' (that's BT lingo for you and me).

BT "teleported" a journalist to a ship where he experienced the wave motions and sounds as if he were actually sailing at sea. BT are now working on feel and touch. (Let's hope the guy wasn't sea sick)!

Taking multimedia a step further, the end-to-end fibre optic network is, according to Professor Peter Cochrane, BT's Head of Advanced Applications, ideally suited for services such as video telephony, video-on-demand, broadcast TV, teleworking and virtual reality.

BT are thinking big, but first they will have to upgrade their 50 year old copper network. They have stated that they will not invest the £15 billion needed to upgrade the network infrastructure unless restrictions are lifted. It's a hard life being a media giant, as we well know here at AUI.

## Computer Virus is a Life Form!

Professor Stephen Hawking, of "Brief History of Time" fame, recently described computer viruses as a life form. He said they were the only life wholly created by humans.

Professor Hawking's praise of the computer virus was part of a 50 minute speech in which he managed to speculate on everything from the origins of the universe to future problems of genetic engineering. The baffled audience heard him discuss how computers could be used for space travel and creation of new life on distant planets, before getting in a plug for the CD-ROM version of his best selling book. Next "A Brief History of Viruses"?

## Not So Comical Marvel

Microsoft have demonstrated a prototype of its forthcoming on-line service, code-named Marvel.

The system would allow Microsoft to compete with rivals CompuServe, Apple's "eWorld" and "America Online".

Microsoft officials predict that Marvel will offer users on-line help, chat lines, shopping, news, games and extensions to a number of its consumer packages.

It will provide a direct link to Windows 4, allowing a user to sign on by clicking an icon.

Microsoft is expected to integrate Marvel directly with its InfoCenter front-end Email client and Exchange backend server which will allow users to receive all mail, including Internet and on-line forum mail in a single inbox.

Can Microsoft's Bill Gates go on benefiting the human race in the never-ending stream of goodies he keeps on bringing to us?

And if he does will he not just become, as he has, the richest man in the USA, but recently the wealthiest on the globe.

Yes, it's hard being a billionaire these days with all these good works to do. We at AUI know just how he feels. (Oh really? Ed.)

## Quotes of the Month

*"It is not ELSPA's intention to make judgement on morality. There is a legitimate market for erotica and pornography on computer disks just as there is for erotica and pornography in the newsagent, as long as the material is delivered to the market in a responsible manner and measures are taken to stop the product falling into the hands of children".*

John Bickley, Chair of ELSPA.

Of course, the world is full of blood and guts in fiction and fact in such communications media as the Press and TV. However, what seems to concern the would-be Guardians of our society and its morality is SEX. Yes, in capital letters - the one activity that is universal. At least ELSPA appears to want to stay out of any suggestion that it is in favour of censorship. But the phrase "in a responsible manner" is worrying. Definition of "responsible" is unfortunately at the discretion of those in a position to make their authority felt.

In the previous Quote of the Month in this issue, from William Gibson, the Internet as described as bringing "anarchy". Why don't those who attempt to busy themselves with the control of what we read or see on computers think about what that means. They are losing control, so wouldn't it be better to concentrate their effort into solving problems not about the universally popular and necessary SEX; but into disasters like the one third of the world on the edge of starvation, the lack of water in so many countries and the pollution that is spoiling the planet; and keep off what anyone sees in the privacy of his or her own computer.

## System Shock

Electronic Arts have released System Shock, the first game to be developed for use with virtual reality headsets. A cross between Doom and the Underworld series, this interactivity package looks set to become a huge hit!

But we have heard that from this year on all major games are to be programmed to allow the predicted flood of VR headsets that is supposedly going to overtake us.



## Sensible Standard

The threat of a damaging standards war in personal video-conferencing similar to the historic Betamax and VHS battle has, its being claimed, been avoided.

Intel and AT&T announced recently that they have joined forces to build a compatible system.

John Petrillo, president of AT&T business communications services said "This agreement will provide a technology base for making video and data calls with a PC as easy to use as calls with a telephone".

Trip Hawkins of EA and 3DO fame started 3DO, he's always said, to establish a single universal standard for games playing. Instead it looks like there will be a multiplication of standards coming over the next couple of years or so. Sony, Nintendo, Sega, Atari and even Amiga are promising to be in there demanding their different audiences loyalties. And, of course there are the PCs too.

Trip Hawkins' idea was to make money on all that juicy software at 43 a throw per product. 3DO have now raised that to \$6, which won't make them popular with anyone. And is that an admission of defeat in the "single standard" aim?

At least in the video conferencing business, it seems that companies are a little more sensible and can come to reasonable agreements. Why not for games?

## RAPT UP WITH RAPTOR

The Raptor Plus rendering engine for Lightwave 3D animation is now available in the UK and Europe through RAMIGA International.

DeckStation Technology, the American company who make Raptor Plus, told **AUI** that the distribution deal would make the product available to the "growing number of serious Lightwave animators in the UK and Europe".

RAMIGA International says it provides high-end professional Amiga videographic systems and "is the cornerstone of Commodore's Amiga Centres of Excellence (ACE)". It is not surprising that both companies say they are "pleased" with the distribution deal since they claim there was a "phenomenal" response to the introduction of Lightwave 3D to Europe recently. Raptor Plus, which dramatically reduces rendering time for Lightwave frames, could therefore be in big demand.

Raptor Plus costs £14,500 (which includes Lightwave 3.5, ScreamerNet software, Amiga Ethernet card, delivery, installation, training and free hotline support.)

Contact: RAMIGA International, Stablau 'Rin, Pentrefoelas, Clwyd LL24 0HT. Tel: 0690 770 304

## Ads Are a Switch Off

The huge amount of channel switching during television advertisements made possible by remote control has forced companies to look at placing their logos in a way which cannot be avoided by the viewer.

It has not taken long for advertising to invade computer software - particularly games. Most of the UK advertising in computer games has been placed by Microtime Media, a company set up specifically to exploit the advertising opportunities of new media. Simon Jeffrey, Virgin Interactive European Marketing Manager doubts that software-based advertising will take-off. "This is not a boom area for advertisers. The hard-core

## Quotes of the Month

"The ability of connecting together fairly complex systems that were not connected before is an ability to make yet more complex, and if you were unlucky, uncontrolled systems. That systems whose possible failures you have not been able to predict, and systems whose good consequences you are also not able to predict"

Brian Randell, University of Newcastle Upon Tyne.

"It's all very well talking about this crap, but where are the people going to come from who can manage the complexity?"

Bill O'Riordan, ICL

Yes, indeed, Bill. We haven't seen too much of the necessary sophisticated managerial talent in the UK yet. That's going to manage all those unpredictable systems.

gamer is very sceptical. If they see obvious advertising it turns them off big time", he commented. However this doesn't seem to put the advertising agencies off. They are now seeking more creative methods by using multimedia.

## The Programmers BBS

Blitz Basic is a fast language for programming enthusiasts.

Powersoft and MagicKnight Productions are offering any Blitz user the ability to create even faster games and applications, they claim, to, power up your programs into a new dimension.

Powermaps is a system to create and display game backgrounds at lightening speeds. Both normal screen and window commands are supplied. Powersoft is a division of MagicKnight software productions and is run by a group of, and we quote, "Blitz enthusiasts to fulfill all your needs"(sic). Is this Blitz speak, or is it taken from the Blitz new programming language?

Contact: MagicKnight on Fidonet 2=254/524.24, Barnet 959: 104/24.0

## Boost Your Workbench

Bruce Smith Books is at it again. Not resting on their laurels with "Secrets of Frontier Elite", they are now offering a free book with their new "Workbench 3 Booster Pack".

The new pack follows on directly from the highly successful A1200 Beginners Pack. The new one provides intermediate level material on Workbench 3, AmigaDOS and system Configuration. The Disks and Drives Insider Guide also contains advanced tutorials on data compression, encryption techniques and low level disk operations of AmigaDOS.

The pack, we hear, is suitable for A1200 and A4000 users. CD32 owners who have access to Workbench will also find the information helpful. The pack - one book/disk and a video - is priced at £41.94. Bruce Smith Books offers you the whole pack at only £39.95, with a "free second book thrown in." (You'd better duck!)

Contact: Bruce Smith Books, Smug Oak Centre, Lye Lane, Bricket Wood, Herts. AL2 3UG. Tel: 01923 894355.

## Write and Wipe

When it comes to using old disks, the messy business is in scribbling onto the old label. Warners Wipers have come up with a nifty answer to this frustrating problem.

Diskette Wipers are a system of specially constructed labels and pens which allow you simply to simply write the latest title on the disk label and wipe it off when you erase the disk.

The Wipers Diskette Manager

makes re-titling diskettes as easy as write and wipe - the same diskette can be used 1000s of times, with no need for unsightly scribbled out labels.

You simply write on the label using the special Wipers pen and wipe clean with damp tissue or cloth.

Price £2.49. Contact: Warners Wipers Ltd., Broads Hinton Wilts SN4 9PN. Tel: 0793 731080.

## Which PC User?

Emap Computing has folded monthly IT strategy magazine "Which Computer" into sister title "PC User". The brand name will be maintained through a number of one off supplements.

A bit of a shame really as some computer history is going down the drain. "Which Computer" was one of the very first good computer magazines and even fathered an eponymous Show at which in its more serious days, Commodore was a regular exhibitor. In fact, the very first issues of Amiga User International were distributed free at those Shows by CBM to create interest in the then new Amiga 1000.

Ah well, nothing lasts forever...especially not computer magazines. (Don't say that! Ed)





# Forging the Essence

In the real world everything has a textured surface. Just run your fingers over something right now and you'll see what I mean. Whatever it is, I guarantee it has bumps, pits, and other imperfections which help define your perception of the object. Even the smooth looking plastic that surrounds your keyboard has thousands of pits which, in bright light at the correct angle, can be clearly seen.

So just how can you take these natural occurrences and use them to make computer graphics appear more realistic, taking on their own unique identity?

It's done by digitising textured surfaces from the real world and mapping them on to the surface of computer generated objects. Everyone who's into 3D graphics knows that! Right! But do you know about algorithmic textures?

## Maths 'n' Stuff

Just about anything could be turned into a set of mathematic algorithms including naturally occurring patterns. Essence uses such algorithms to produce outstanding replications of natural and man-made textures. Essence textures can be saved as bitmap images and used in just about every graphics package you can name.

Essence's algorithmic textures can be loaded directly into Imagine for immediate use. If you don't use Imagine then that's not a problem. Essence comes with a powerful rendering engine called Forge which generates bitmap images. Simply choose the algorithmic texture you want to use, tweak its attributes, render it, save it, and then load it into your favourite graphics package.

## Packing 'Em In

There are now two volumes of Essence textures and both come with the incomparable Forge engine. Volume One is blessed with over seventy various textures and Volume Two is endowed with over forty. You may conclude that the first volume is better value for money but many of the algorithms in the second volume are more sophisticated. Here's a brief example of the types of textures you can expect to find in each volume.

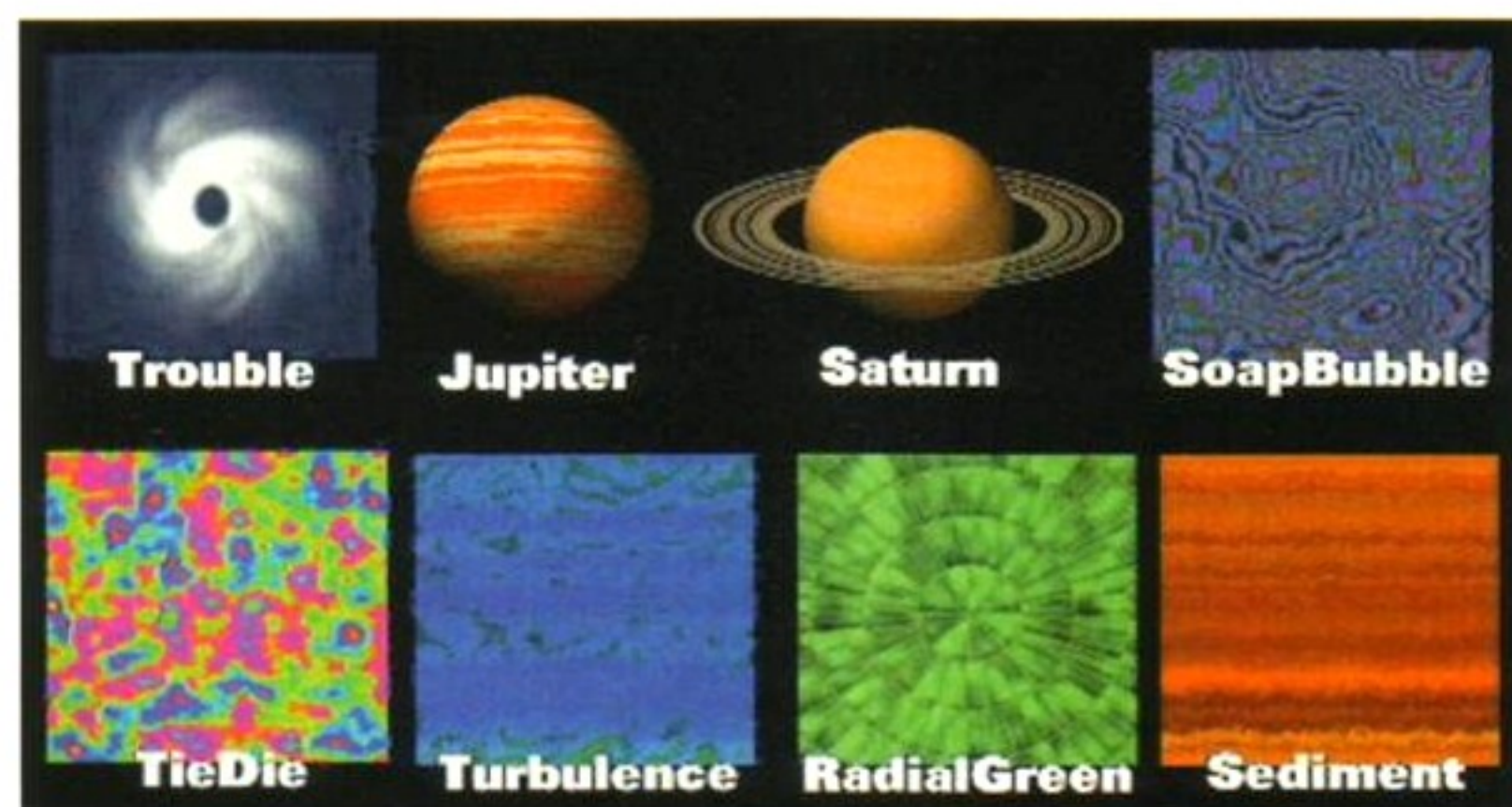
Volume One: Alpha channels (for mixing and masking multiple tex-

tures), Altitude (bumps and grids), Check-bricks (chequered patterns), Misc (basketball court, digital counter, mandelbrot), Noise (fractal patterns), Patterns (basic), Swirls, Transitions (clouds), and Utility (to be used with other textures).

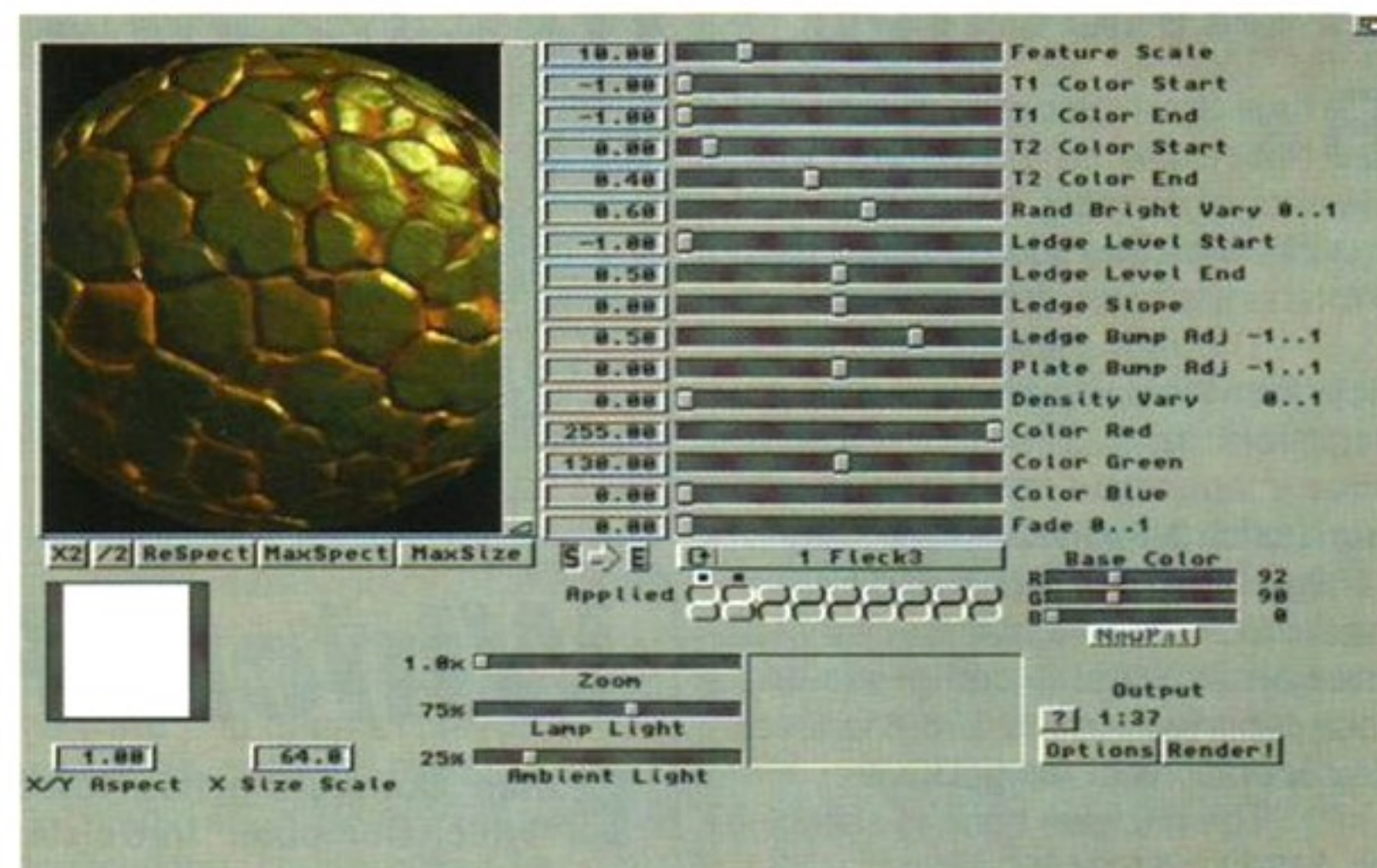
Volume Two: Bumpythings (rock, glass, metal), Misc (liquid, fractal, radarscope), Organic (crusts, veins), Space (planets, cosmic clouds, cyclone, machinery), Tiles, and Water (waves and ripples).

## Attributes

Each algorithmic texture can be drastically altered in many ways to provide millions of unique, tailored textures.



Some of my favourite Space textures.



Forge is rendering me a dino skin...

Colours, ridges, angles, frequencies, phases, and many other factors can be changed simply by dragging sliders back and forth. Up to nine textures can be combined to create exclusive concoctions of your own.

Attributes can be saved to disk so you can revive your own recipes at a later date, or load any of the supplied

**Getting original textures can be a growing pain for many artists, but, as Gary Fenton found out, there is a cure.**

give you a real time thumbnail preview of the animation which can be rendered and saved as bitmap files.

## Rendering

Forge gives you a smallish rescalable window which previews the currently loaded texture. As you may appreciate, it takes a lot of processing power to render these textures which Forge does on several passes. The first pass occurs instantly and produces a very coarse pattern. After a few passes the texture begins to take shape and detail becomes apparent. Half a dozen passes later you have a very clean anti-aliased image.

You don't have to wait for Forge to complete the render in order to make changes. Every time you make an alteration Forge will stop and begin rendering a new image.

Forge uses a high resolution screen in either 16 colours or grey scales, or 256 colours on AGA machines. Pre-written AReXX scripts accessible from one of Forge's menus let you view your creation on various graphics cards, or you can adapt the scripts for specific needs.

The light source used to calculate shading and speculation can be positioned to any one of five preset locations (top, left, bottom etc) and the light level is regulated by a slider bar. The texture itself can be rendered onto a flat shape viewed from different sides, or a sphere or cylinder or a repetition map.

Repetition maps are calculated so that the image can be repeated (tiled) and the seams you would otherwise see are apparently removed. This means you can render a brick texture as a small image (256 x 256) and

attributes which are in abundance.

To top it all, just about every texture can be animated which is incredibly useful. Imagine spinning hurricanes, working digital clocks and radarscopes, rippling puddles, growing veins, evolving bumps, and so on! Animations are made by defining an initial and final texture state. Forge will



# AUI TEST DRIVE

## Requirements

To run Forge you must have at least 2Mb of RAM, an FPU or a 68040 or 68060 CPU. You should also have Workbench 2.04 or greater. The faster your Amiga the better. AA Amigas or 24 bit graphics cards are optional and so too is a 64 bit AAA RISC chip set. (Yeah, like I wish! Seen the Ultra 64 then?)

repeat (tile) it in your graphics program producing an infinitely large brick wall! It also saves memory and disk space.

## Time..

Once you are happy with the previewed image you are ready to render the final texture and save it to disk. Small, simple textures can take less than a minute to render on an 040 based Amiga while larger more complicated textures can take up to 20 minutes and way, way beyond. How long you have to wait is constantly predicted by Forge before and during rendering. It's an accurate guesser which told me a texture would take 58 minutes to render and it in fact took 59 minutes!

There is practically no limit on the size of the rendered image. It can be a mediocre 256 x 256 pixels or a whopping 99,999 x 99,999 pixels if you are stupid enough to try it. (I did and was told to come back in 10 days and 4 hours!)

So long as you don't select the JPEG file format you can render an image of any size with just 2Mb of RAM! Talking of formats, Forge joyously outputs 24 bit IFF files, TIFF, JPEG, and the Unix PPM format.

Five optional anti-aliasing levels provide the final image with clean unpixelated detail. This appears to double the rendering time for each additional level of anti-aliasing selected. In practice I've found the lowest level to be sufficient for my own needs.

## Conclusion

I look upon Forge as the magic genie who grants me new textures as I desire them. A hundred times easier than finding elusive objects for digitising, an

on-line limitless supply of original textures, this is a dream product to complement your favourite 3D package.

Whether you need new textures for LightWave, Imagine, Real 3D, Caligari, Aladdin, or even original backgrounds for Scala or MediaPoint, you should already be considering the Essence collection.

It may have taken a genius to write Essence and Forge, but any dummy can use it, honest! Apex Software are still hard at work creating new algorithms to add to the collection in the future. If I'm forced to criticise Essence, I feel that there aren't really enough good wood textures, but I'm scraping the barrel here. Take a good look at these example pictures and just imagine what Essence can do for you. **AUI**

## RATINGS

### Forging The Essence

<b>FEATURES</b>	<b>94%</b>
<b>PERFORMANCE</b>	<b>92%</b>
<b>SPEED</b>	<b>75%</b>
<b>DOCUMENTATION</b>	<b>95%</b>
<b>EASE OF USE</b>	<b>88%</b>
<b>VALUE FOR MONEY</b>	<b>76%</b>

**Overall Rating 90%**

## INFO

Price: £99.95 per volume.

Limited offer of £79.95.

£10 off if you buy both.

Contact: Meridian Software  
East House,

East Road Industrial Estate  
Wimbledon, London SW19 1AH  
Tel: 0181 543 3500

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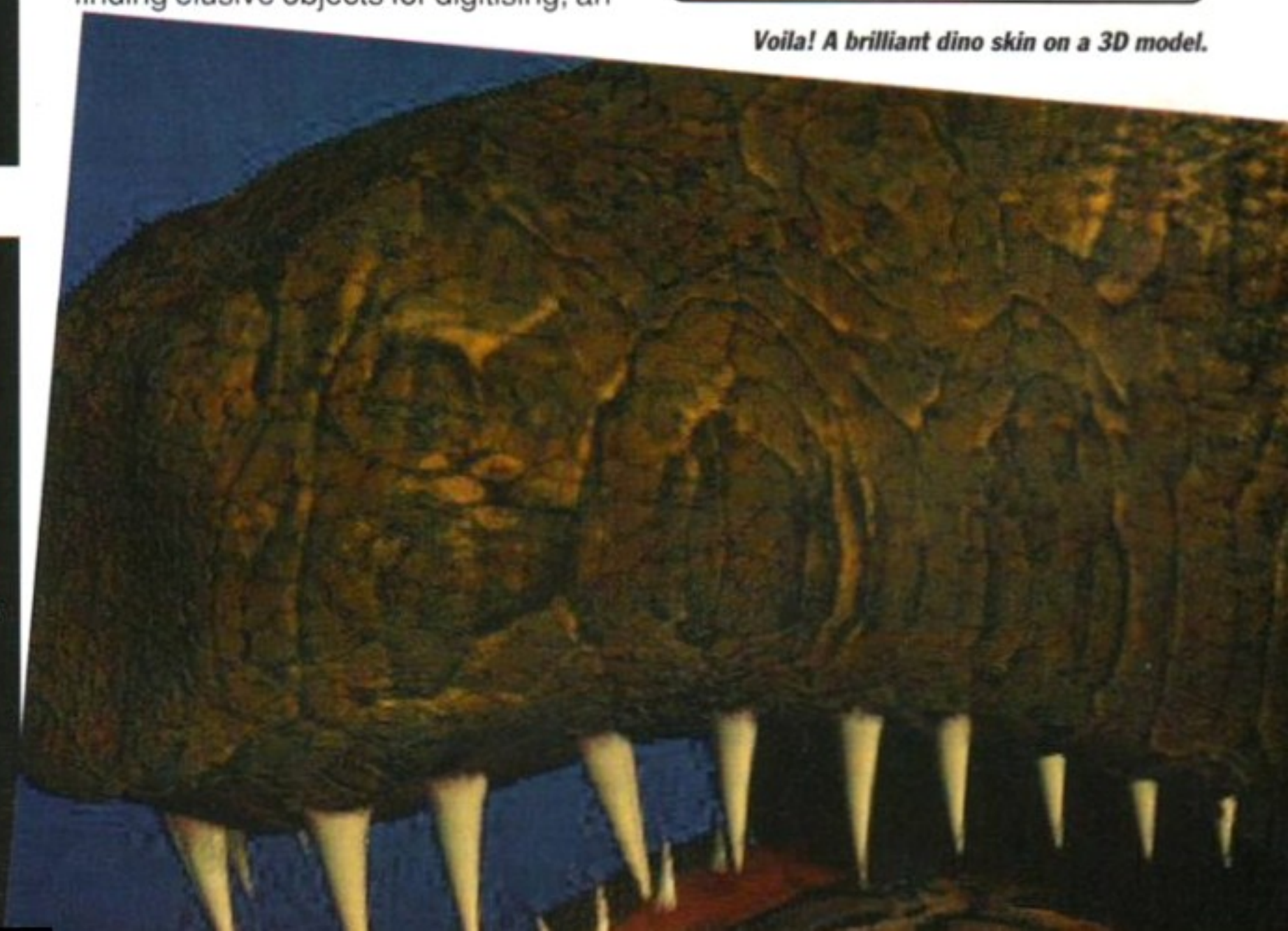
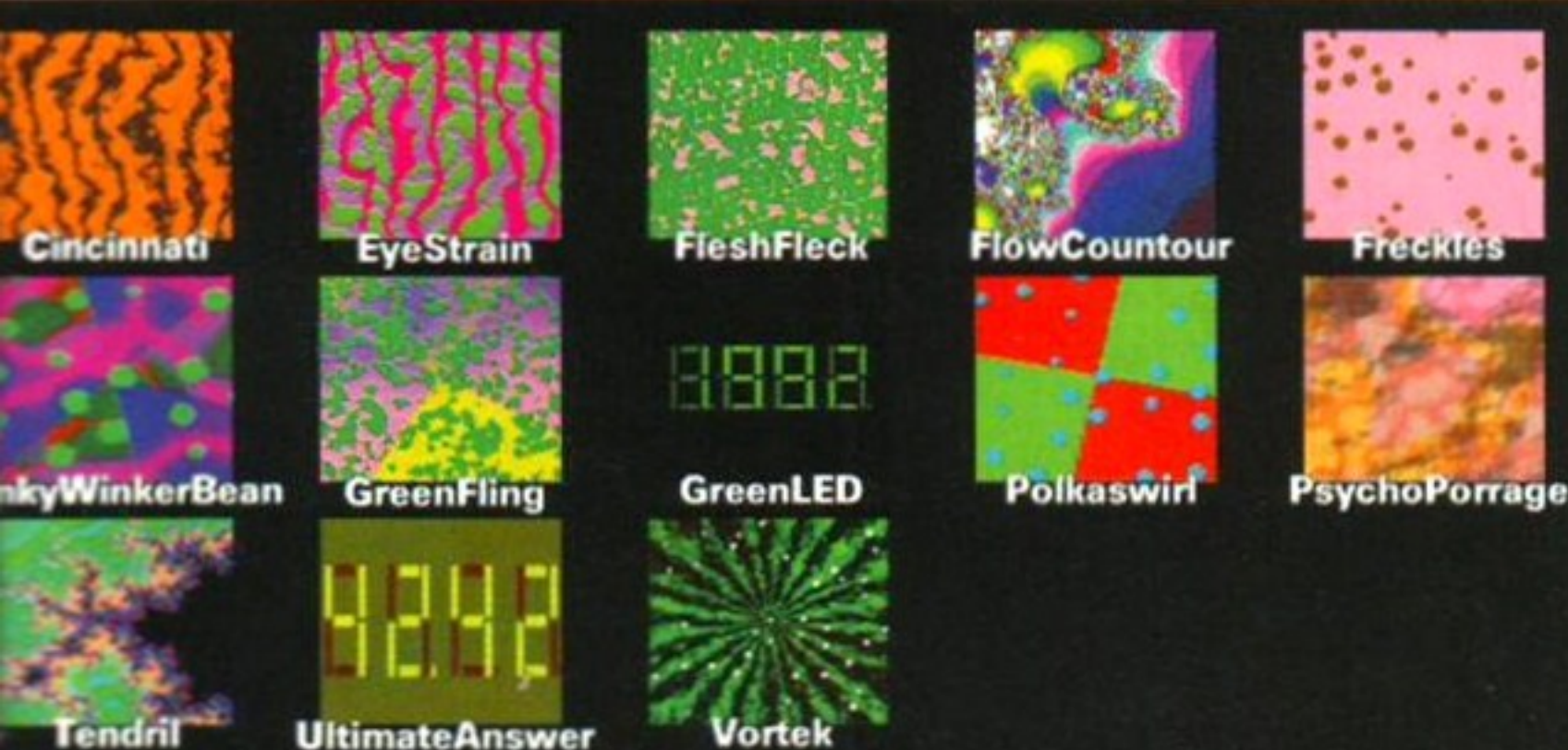
Examples of bumpy textures.



Beautiful noise textures.



Realistic looking tiles.





One of the challenges facing Amiga International, always supposing the management buy out succeeds, is whether to continue to position the Amiga as a games machine but also try to convince the world, especially the home user more and more enamoured at the moment with PCs.

Programs like Final Writer for the Amiga do nothing to resolve the confusion. This word-processor cum DTP program is never going to beat PC or Mac packages at their own game, but for under £75 it has to be one of the best value word-processors in the world.

The original Final Writer was reviewed in February '94's **AUI** and received 88%. As the reviewer wrote then: "At the moment, it is the last word in document processing on the Amiga, providing many frills and not a few thrills." Recently **AUI** received a beta-version of Final Writer 3, due for imminent release, which features several improvements to version 2 and some new functions.

It's worth making it clear at the start that Final Writer 3 isn't for all Amiga users. It needs at least 2 Mb of RAM to run and more ideally for graphics manipulation, WorkBench 2.04 or upwards and a minimum of 2.5 Mb of hard drive space, ideally 9.5 Mb to install all the extra fonts and clip art. It will only run from a hard drive, not floppy. But it just about worked, albeit slowly, on a basic 2 Mb A1200 with an internal hard drive, worked better on an expanded, accelerated A500+ and best of all on a CD32 with an SX-1 module, fitted with a hard drive and 4Mb RAM. I still couldn't get the extra clip art to install, but I'll put that down to it being a beta-version.

## Word Processing

Final Writer 3 is a serious word-processing program. As well as letting you word-process documents, easily

# Final Writer 3

**Michael Rumbelow test drives one of the heavyweight W/P packages on the Amiga and finds that it is punching its weight.**



adjust the size, font and style of individual pieces of text on-screen and number pages automatically, it also has some advanced graphics and text manipulation features.

For instance, it's now possible to choose and pick up blocks of text with the mouse; double click selects a word, triple click a sentence and

### Making good use of AGA's 256 colours

quadruple click a paragraph. This selected text can then be placed somewhere else by just dragging it with the mouse. Or by pressing the 'text block' button it can be turned into a text block and treated as a graphic, so it can be stretched, rotated, resized and picked up and moved around.

## Graphics

You can import graphics and place them on a page. It will display them in anything up to 256 colours (on an AGA machine), you can then re-size or crop them and move them about with the mouse. You can also draw coloured shapes like oblongs or ovals to put text in and in the latest version these can be grabbed by their control points and distorted into virtually any shape. And you can then have text automatically flow around graphics images or shapes as it does in magazines.

Imported graphics can be in IFF format, so you can have DPaint multi-tasking simultaneously with Final Writer, knock up a quick brush and then import it into your Final Writer document. Alternatively and very

usefully Final Writer is compatible with standard EPS (Encapsulated Post Script) graphics of which there are thousands in the Apple Mac and PC-based Public Domain. Similarly it can handle Compugraphic and Adobe type 1 fonts, also common in Mac/PC PD.

Version 3 also tidies up a few parts of the program giving it a more professional edge. There's an improved automatic hyphenation function, an auto-spell check which checks words as you type and an auto-save function which saves your document automatically at regular intervals. Also multi-lingual spell-check dictionaries and thesauruses are being compiled for creating documents in, for example, Canadian French, US English or Norwegian.

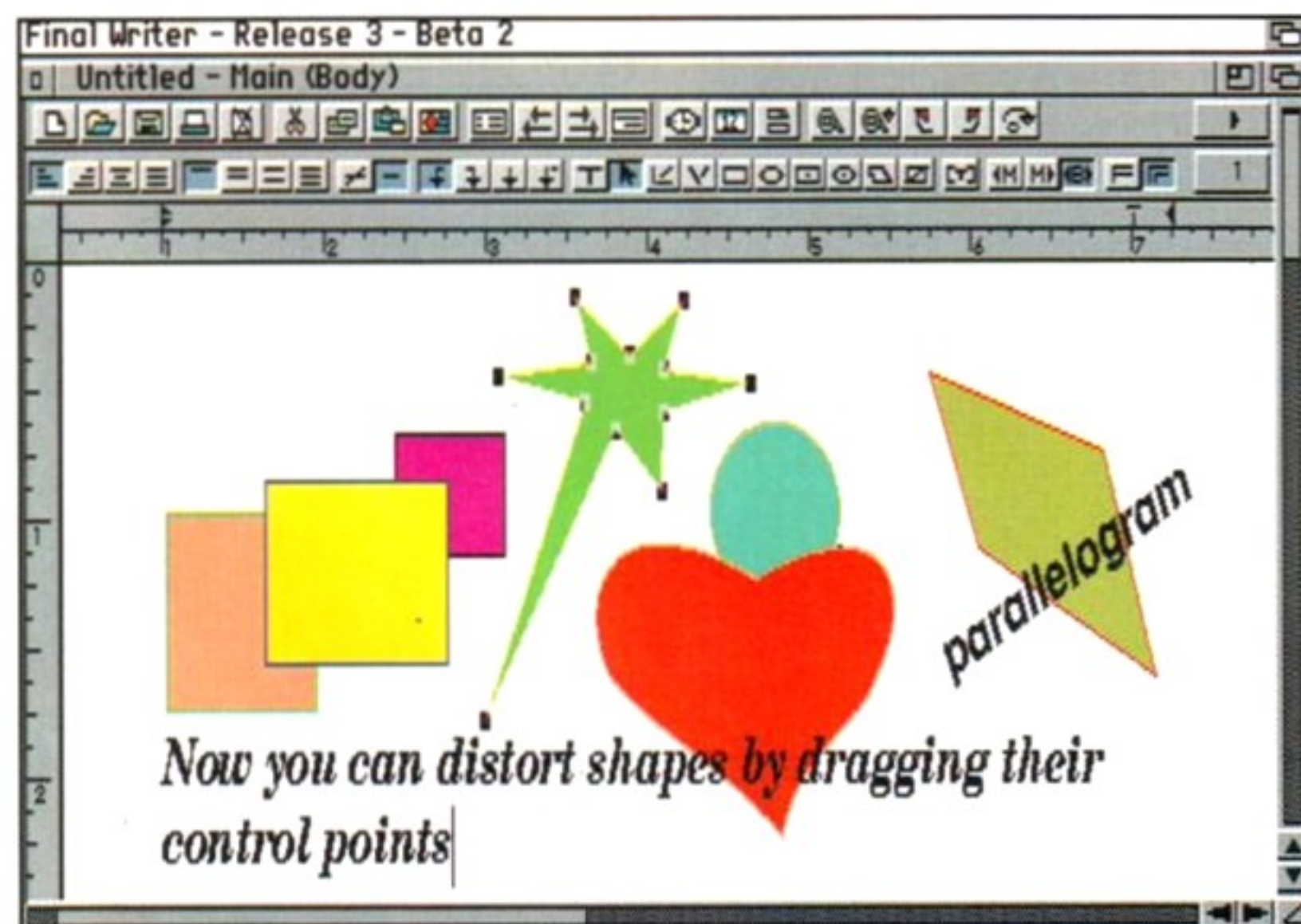
## Conclusion

This is definitely not just a token Amiga word-processor, it is a serious, comprehensive package for producing very professional-looking documents on the Amiga.

Link it up to any PostScript printer and you can get some very fine hard copy results, in black-and-white or colour if required up to your Amiga's maximum.

It isn't as easy-to-use or polished as equivalents on the Mac or PC and definitely not as comprehensive, with a minimal undo facility and very limited compatibility with other DTP programs for instance.

Once a program starts to incorporate DTP features it can be frustrating when it doesn't have them all. But Final Writer is still an excellent and potentially extremely useful document processor, and all for the price of a couple of games. With heavyweight programs like this being released the future of the Amiga should be at least firmly up in the air. **AUI**



Once you've tasted some DTP functions, you want them all.

## RATINGS

### Final Writer 3

FEATURES	85%
PERFORMANCE	90%
EASE OF USE	75%
DOCUMENTATION	N/A
VALUE FOR MONEY	94%

**Overall Rating 89%**

## INFO

Price: £74.95

Upgrading from versions 1 & 2 for £14.95

Contact:

SoftWood Products Europe  
New Street, Alfreton, Derbyshire  
DE55 7BP

Tel: 01773 521606



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# AMOS UPDATE

**T**he AMOS programming language is as popular now as it ever was so it is clearly standing the test of time amongst users. The reason of course is simple - it sells because it is good! It provides both beginners and experts alike with an extremely powerful 'Basic like' programming language which has been carefully tailored to the very special graphics/sound facilities that the Amiga offers.

After the original AMOS two variants appeared: Easy AMOS, a cut down version especially suitable for beginners and the all singing all dancing top of the range AMOS Pro. Both of these products attracted their respective bands of loyal followers. In addition to this an AMOS Compiler was launched. This much, as I'm sure you all know, is Amiga home programming history, but the thing that attracted my attention of late was news of an improved compiler. So I thought it was time to take another look at AMOS in its current form.

When the compiler arrived there was some unexpected good news - the package comes with a separate AMOS Pro disk update disk which can be used to bring your AMOS Pro disks, or hard drive AMOS Pro installations, up to the latest version 2.x. The benefit here is that you can then drive the compiler directly from the AMOS Pro editor.

## Improvements

AMOS Pro and the AMOS Compiler have in fact had a considerable rewrite of late and a lot of the internal improvements have been specifically made to ensure that updates such as these are easier to produce. There are plenty of other improvements as well, for example an 'intelligent' memory system which automatically makes the best use of available memory and is also able to create smaller and more optimised files. There's a new compiler 'Shell' (not to be confused with an AmigaDOS Shell) which is a front end program that provides an easy-to-use control panel for driving the compiler.

## **Paul Overaa has been taking a look at the latest version of AMOS Pro and its Compiler and has been pleasantly surprised...**

There is also a new batch mode which can compile entire directories of AMOS programs in a single operation, and even a 'boot disk maker' which can install a compiled program onto its own startup disk. Incidentally the new compiler does store its various configuration settings in the Workbench:s directory and unlike on the old system these files are not in text form and so cannot be modified with a standard text editor. Configuration changes therefore can only be made through the dedicated 'Setup' option of the compiler front end shell.

## Compiler

The compiler itself has plenty of flexibility including the choice of whether you create smaller executable programs that rely on having an external AMOS library present in your LIBS: directory, or whether you produce a somewhat larger compiled program that is truly 'stand-alone' (i.e. doesn't require the external AMOS

library to be present). Compilation times are fast and even though I am only an occasional AMOS user I had no trouble at all in writing and compiling all sorts of examples under the various options. Everything worked as expected and there were no nasty surprises at all.

I ought to mention at this point that the new compiler, including its new Shell, can also be used by AMOS and Easy AMOS users. The only limitation is that you cannot compile or test the programs directly from your AMOS editor because you have to load the compiler separately. AMOS Pro users then are better off only in that they are able to control the compiler directly from the 'User' menu of their editor screen.

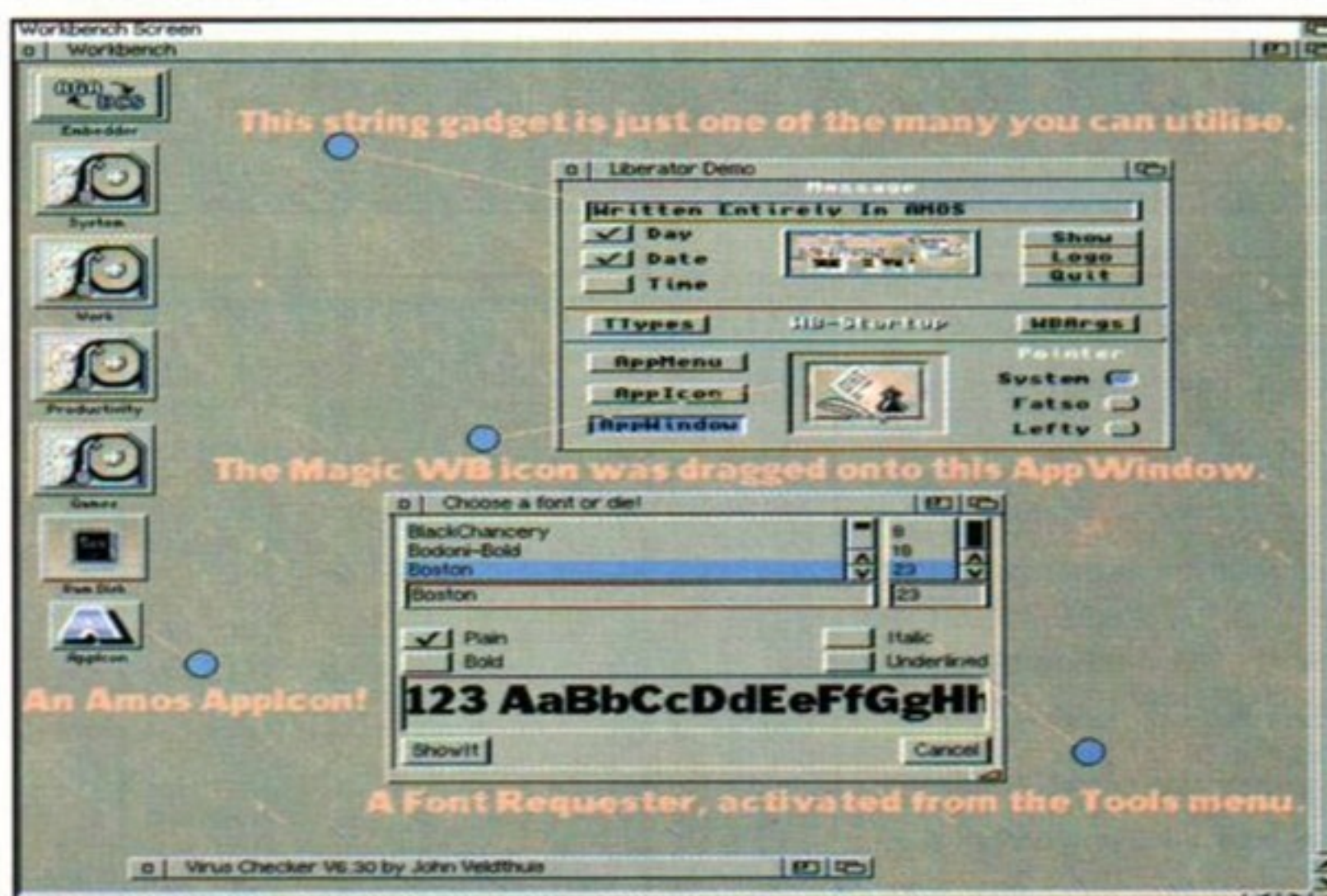
If you are an original AMOS or Easy AMOS user who has not upgraded to AMOS Pro then now is a good time to do it. Remember that nowadays AMOS Pro has things like on-line help (first seen with Easy AMOS), loads of additional commands, and an interface language that

simplifies the job of generating dialog boxes. On top of that there are sophisticated, yet easy to use, commands for things like sound sample use and ARexx control and lots of accessories thrown in (object editor, resource editor, sample bank maker and so on).

I must admit that it has been quite a while since I've had anything to do with AMOS. In fact of late I had not even taken that much interest in updates that have appeared. What surprised me more than anything as I looked at the current offerings is firstly how the overall environment has grown and secondly the fact that so much can be done by coders without having to leave the AMOS environment.

## Conclusion

AMOS Pro and the latest compiler is certainly a game maker's dream but it is equally capable of being used as a more conventional Basic applications programming language. The recent enhancements will clearly please existing AMOS users and there is a good chance that they will tempt quite a few users of other Basics into joining the AMOS fold once and for all! **AUI**



AMOS, an old'n but a good'n.

## RATINGS

### AMOS

FEATURES	90%
PERFORMANCE	93%
EASE OF USE	87%
DOCUMENTATION	85%
VALUE FOR MONEY	85%

**Overall Rating 88%**

## INFO

Price: AMOS Pro Compiler:  
£34.99

AMOS Professional: £49.99.

Contact:  
Europress Software, Europa  
House, Adlington Park,  
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Well, this new Video Backup System (VBS) system calmed my fears. Not only does it offer the whole idea at a very low cost but it incorporates some very clever error correction which works wonderfully. The same data appears on two frames, so there shouldn't be a problem.

VBS will work with any Amiga equipped with at least one meg of memory and release 2.0+ O/S. If you have an 68020 or higher, data is able to be processed a lot faster (up to two times faster than previous versions). Data compression further speeds up the process.

The software comes on one disk and is very easy to install and set up. The hardware is available in two forms depending on the type of VCR you have. There are both SCART and PHONO versions from which to choose. One end of the supplied cable is plugged into the VCR and from the VCR, the other end of the cable has to be plugged into the Amiga's Serial port. as simple as that.. The software looks very smart and is very easy to use.

## Backing It Up

To make a backup of your data, you must first select the type of backup you want to make. You can either backup a floppy, or backup multiple files. With

**Gideon Overhead test drives a backup system that is cheap, easy and satisfies one of his long held ambitions.**

the floppy backup, you can store a whole Amiga disk, track by track, onto video. This is useful if you need to backup non-DOS disks or you just want to keep the structure of your disks intact.

File backup is used to store material off your hard disk. Using this you can select which files or directories you want to include and exclude.

It is also best to keep a logfile of your backups. A logfile represents the video tape. They are files which contain information about your backups.

If you have a 3 hour tape you can just imagine how difficult it would be to find one backup session part way through the tape. If you have an index function on your VCR this will help but this doesn't always work as sometimes index marks can be skipped over. Most VCR's have a tape counter so this is used to record the position of your backups. It doesn't matter whether this is a time or a numeric counter.

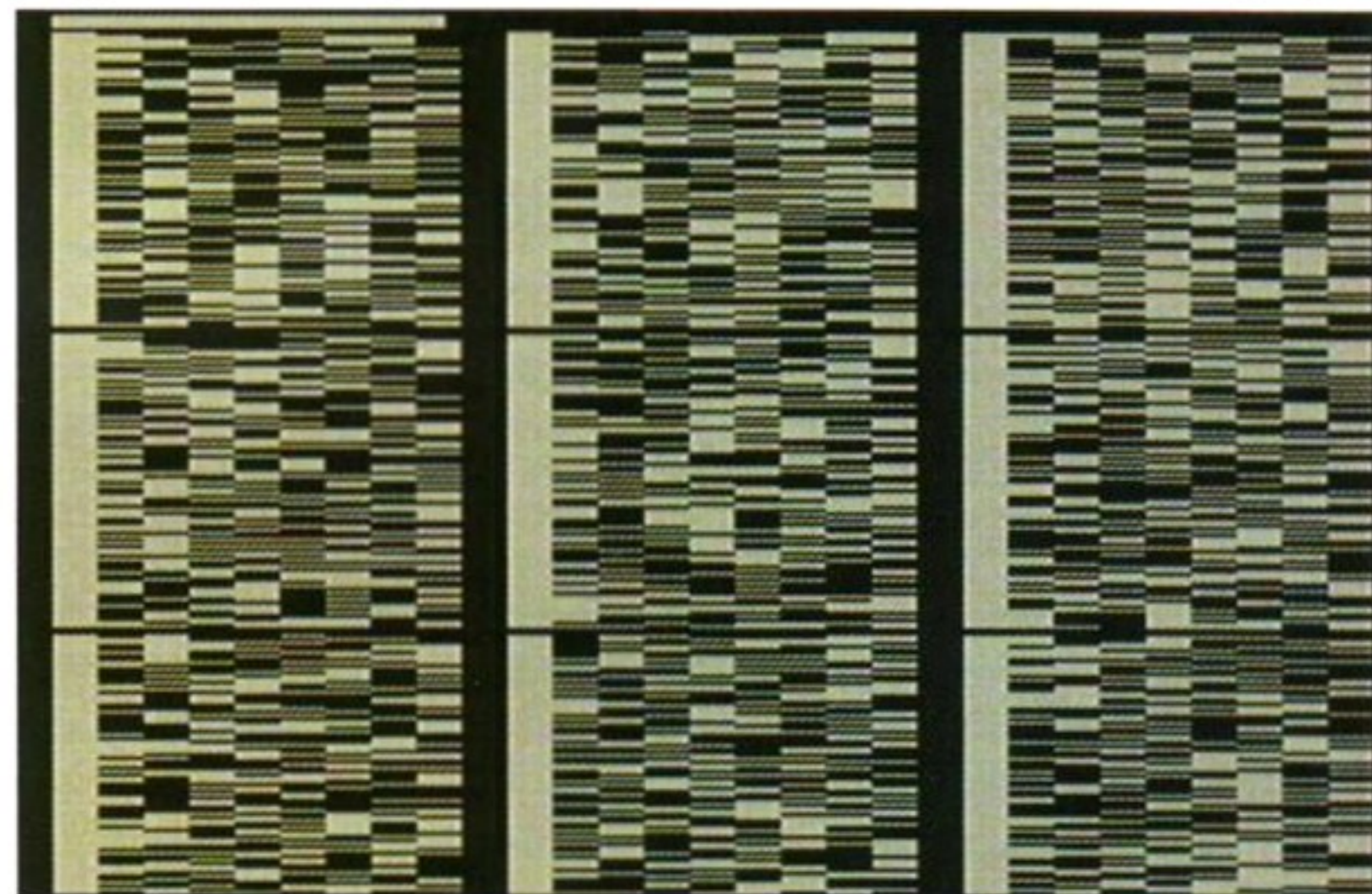
When you have selected the files you want to backup, the next step is to start the video recording. Before you start, it is best to check your hardware connections.

At one end there is a serial connector, on the other there are connections for the video and one other Phono which must go into the composite video output of the Amiga. If you have an A3000 or A4000 there will be a slight problem as these

*The software is easy to use and understand.*

machines don't come with a composite output. Luckily external modulators are very cheap. I used my old A500 modulator. and these are now easily obtainable.

Another problem will arise if you only use a monitor on your Amiga3000/4000. With the modulator plugged into your only video output,



*Your data is converted to visual information and recorded to ordinary video tape.*

you won't be able to see to use the software. You will have to plug a TV into the RF output of the modulator to solve this minor problem.

When the VCR is running, you can hit the mouse button and a visual header is placed on the tape which contains information such as the date and name of the backup which you can actually see. So when you restore it, you know for certain that the tape is in the correct place. There then follows an interesting display of black fizzing on the screen. This is your data in visual form!

## How Fast?

Just how fast are the backups? Well I tested the process on some ASCII text, both with compression, then without. Without compression it took 1min 30secs to backup 2 megabytes of ASCII text. With compression this was reduced to 40 seconds.

The screen freezes while the computer loads the data into memory and then compresses it. The screen then writes it to the tape. It does this in blocks. If this time could be condensed,

by having a fast processor and hard drive, the backup time would be still less.

## Conclusion

At first I had my doubts about this particular system of backing up computer data, but no longer. The VBS worked flawlessly throughout the time I was it. It is a very cheap and easy way to backup both large and small amounts of data. At £60 it is less than half the price of the cheapest tape streamer, and the video tapes are also cheap and very easy to get hold of! At about £3 for a four hour video tape which can take around 200 megabytes

## RATINGS

### Video Backup System

<b>FEATURES</b>	<b>95%</b>
<b>PERFORMANCE</b>	<b>96%</b>
<b>EASE OF USE</b>	<b>94%</b>
<b>DOCUMENTATION</b>	<b>94%</b>
<b>VALUE FOR MONEY</b>	<b>95%</b>

**Overall Rating 95%**

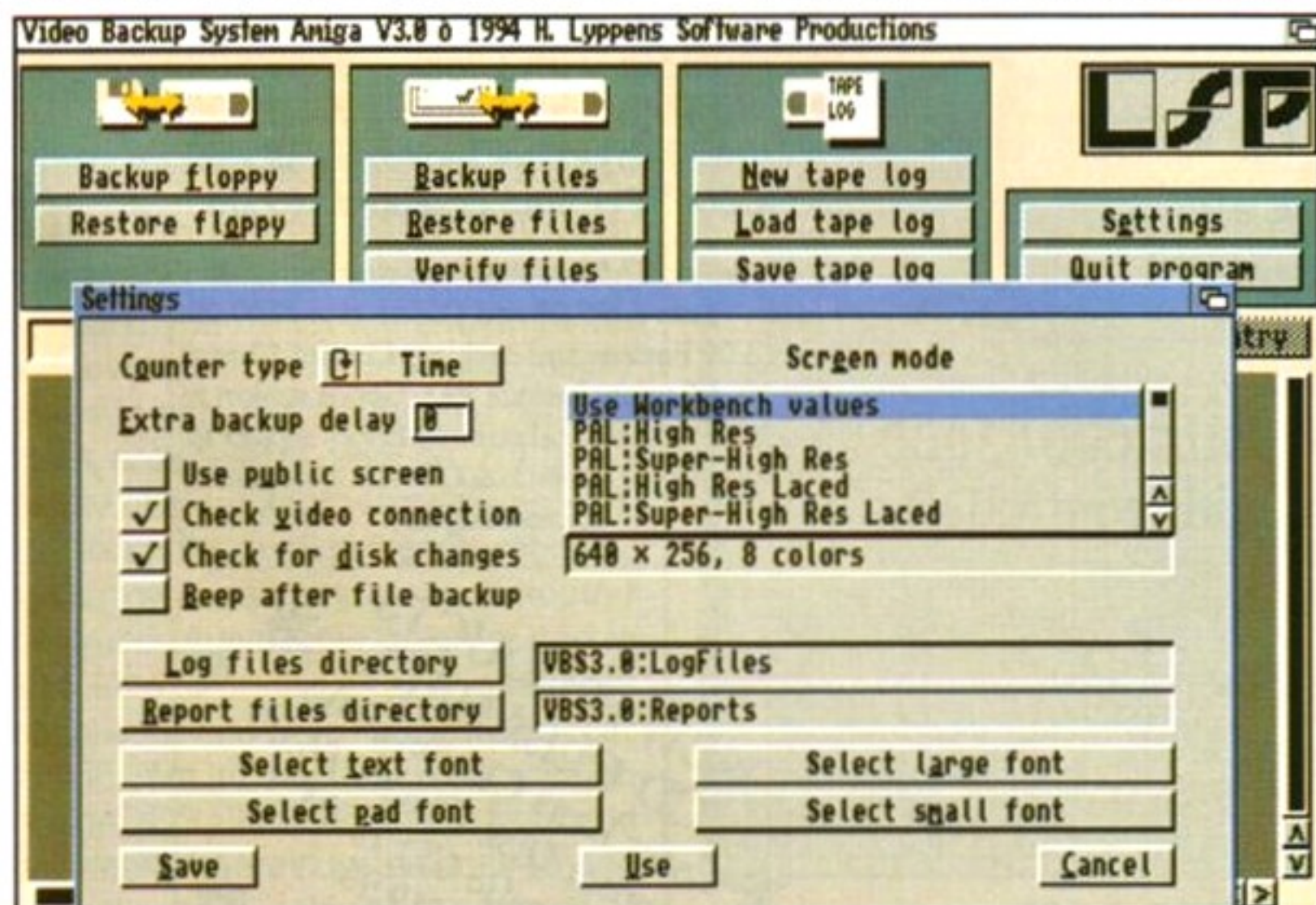
## INFO

Price:

Video Backup SCART: £65  
Video Backup PHONO: £60

Contact:

Power Computing  
44 Stanley Street  
Bedford MK41 7RW  
Tel: 0234 273000



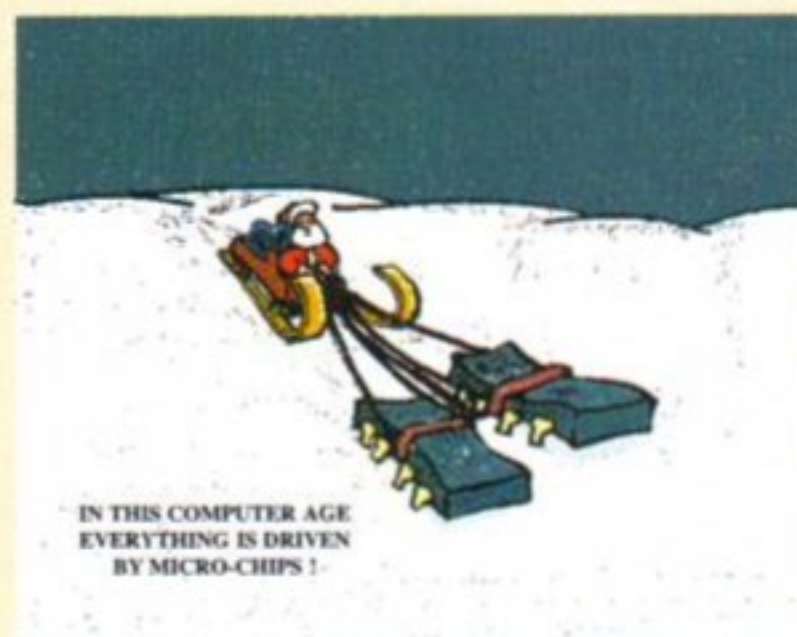




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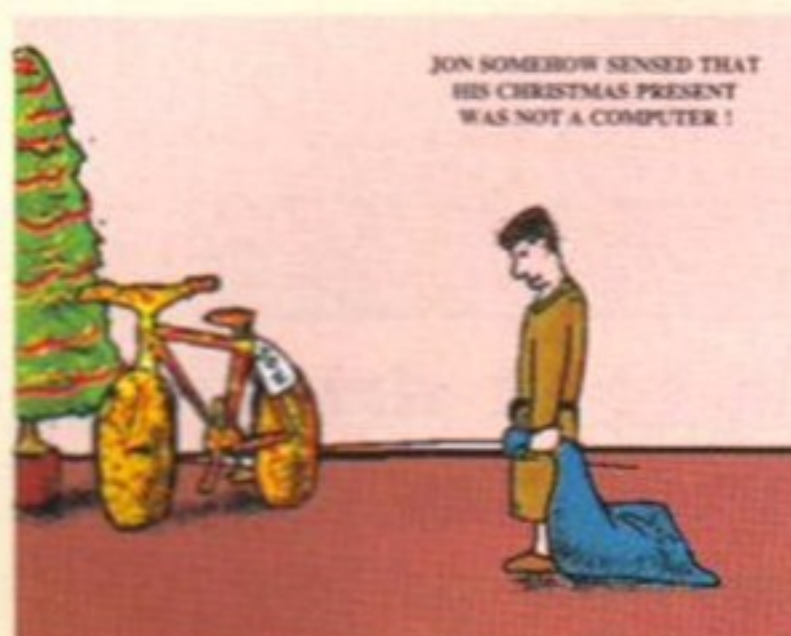
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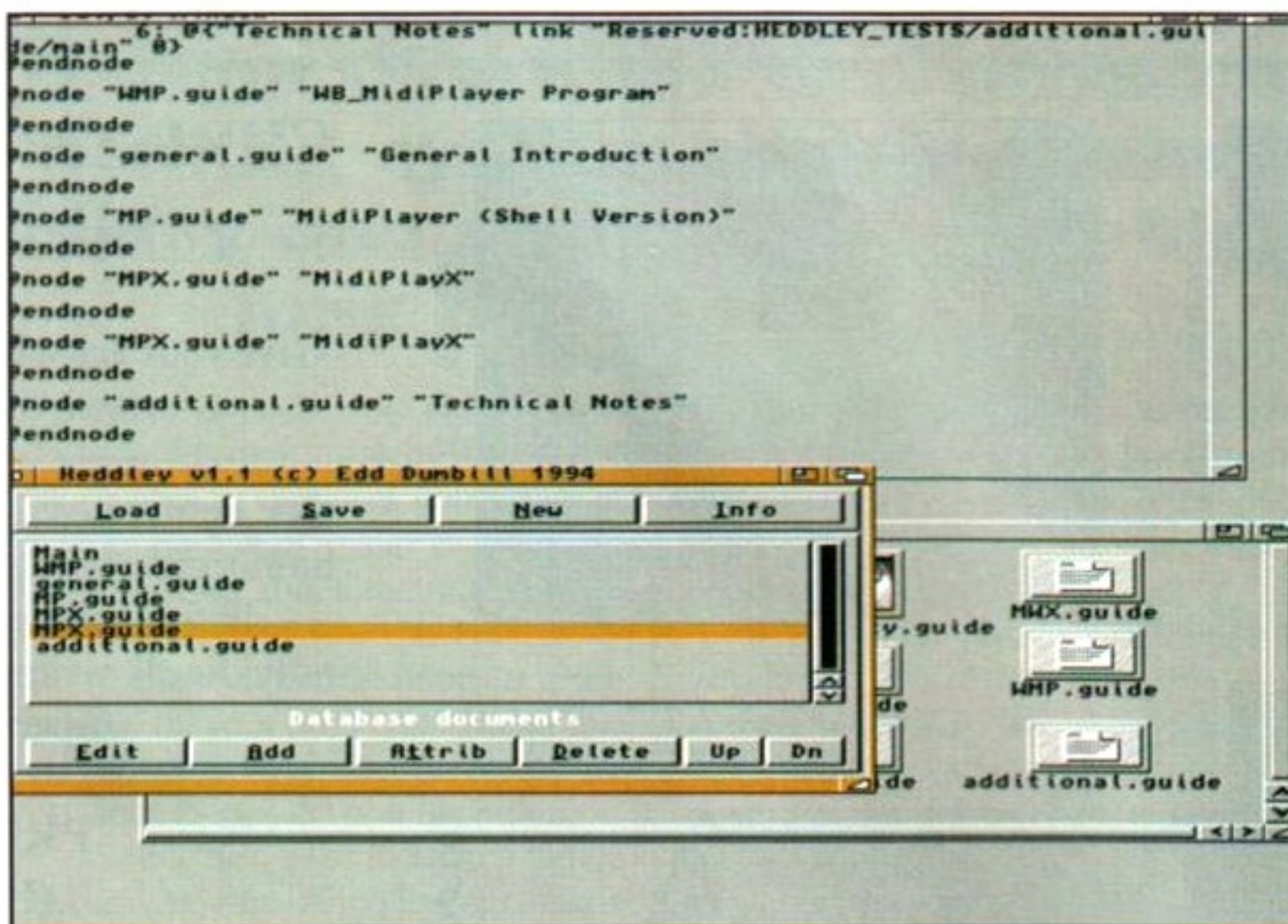
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# HEDDLEY

**A**migaGuide, Commodore's hypertext based help system works by using database files that contain both text and embedded commands which indicate how the text should be displayed. Link commands are also available and sections of text (called nodes in AmigaGuide parlance) can be marked and moved to at the touch of a button. A user might, for example, be reading an account of the menu operations available for a particular program. In a sentence describing the fact that menu shortcuts are allowed the word 'shortcuts' might be highlighted as a selectable button. By clicking on that button the user might then be taken directly to another document which lists all possible shortcuts. Having read these the user would click on the AmigaGuide 'Retrace' gadget and be instantly returned to the menu text that they were originally reading.

The AmigaGuide system, as you can well imagine, is quite sophisticated internally. Cross reference tables can be loaded which allow users to display a document based on a keyword without having to know the name of the AmigaGuide database that contains it. ARexx control is provided, and there's even a way of generating hypertext information in real-



## Paul Overaa test drives a new utility designed for simplifying the creation of on-line AmigaGuide documentation.

up until now, almost all AmigaGuide databases have had to be created manually. This entailed first writing the documentation and then rearranging the text into suitably coherent sections, adding the commands to identify text links, specifying the appropriate paragraphs as text nodes and so on.

### Enter Heddley

Heddley is an AmigaGuide hypertext editor capable of directly incorporating text documents into an AmigaGuide database. It allows you

appears in a list and both the scroller gadget and the cursor keys can be used to move through any displayed text. Adding link buttons or setting text style/colour also just couldn't be easier - you just highlight the appropriate document text (by drag-clicking with the mouse) and select the relevant menu option.

Heddley's formatting arrangements are paragraph based and since Heddley automatically removes embedded linefeeds from within paragraphs, you can even use editors like Ed to prepare your text (Heddley itself uses this by default) despite the fact that Ed automatically insert linefeeds at the ends of each line of text. When creating AmigaGuide databases manually such line feeds have to be removed because they

can interfere with the word-wrapping of the text. One practical problem that has affected some Amiga

Guide based applications is related to things like differences in word-wrap behaviour that exist between AmigaGuide 34 (the AmigaDOS 2.04

version) and the latest AmigaGuide 39 version which supports a variety of command extensions.

### Conclusion

Heddley is an excellent program, well conceived, and likely to prove extremely useful to programmers or anyone else wanting to create AmigaGuide files. One of the most important things about Heddley is that the user does not need an in-depth understanding of how AmigaGuide files are arranged in order to create effective hypertext documentation. Doubtless improvements will be made as the program matures but the current version is clearly very usable.

Perhaps the best news of all though concerns the cost because since Heddley is a shareware product it is far lower than you might expect (ten pounds to be precise). My advice? Try it, you are unlikely to be disappointed! **AUI**

*Left: AmigaGuide databases are just conventional ASCII files so you can examine (or perhaps even edit) Heddley's output files using any text editor!*

## RATINGS

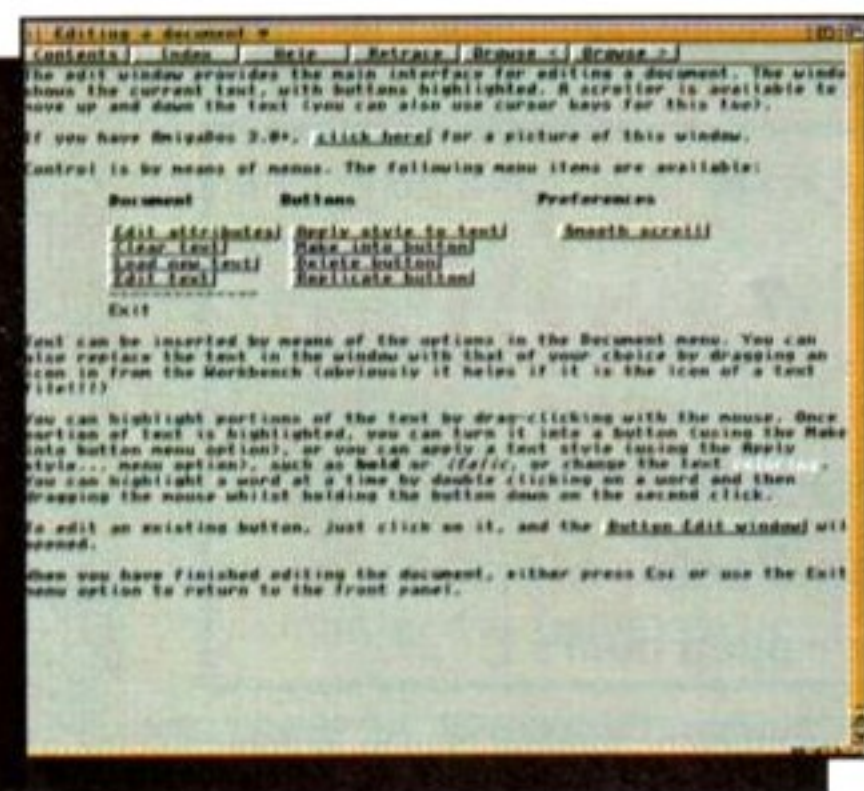
### Heddley

<b>FEATURES</b>	<b>85%</b>
<b>EASE OF USE</b>	<b>80%</b>
<b>DOCUMENTATION</b>	<b>85%</b>
<b>PERFORMANCE</b>	<b>87%</b>
<b>VALUE FOR MONEY</b>	<b>98%</b>
<b>Overall Rating 87%</b>	

## INFO

Price:  
Heddley registration costs £10  
The program can be obtained directly from the author,  
Edmund Dumbill,  
13 Giles Avenue,  
Burnholme,  
York  
YO3 0RB  
England

*Creating a button with Heddley just involves high-lighting the text and selecting a menu option.*

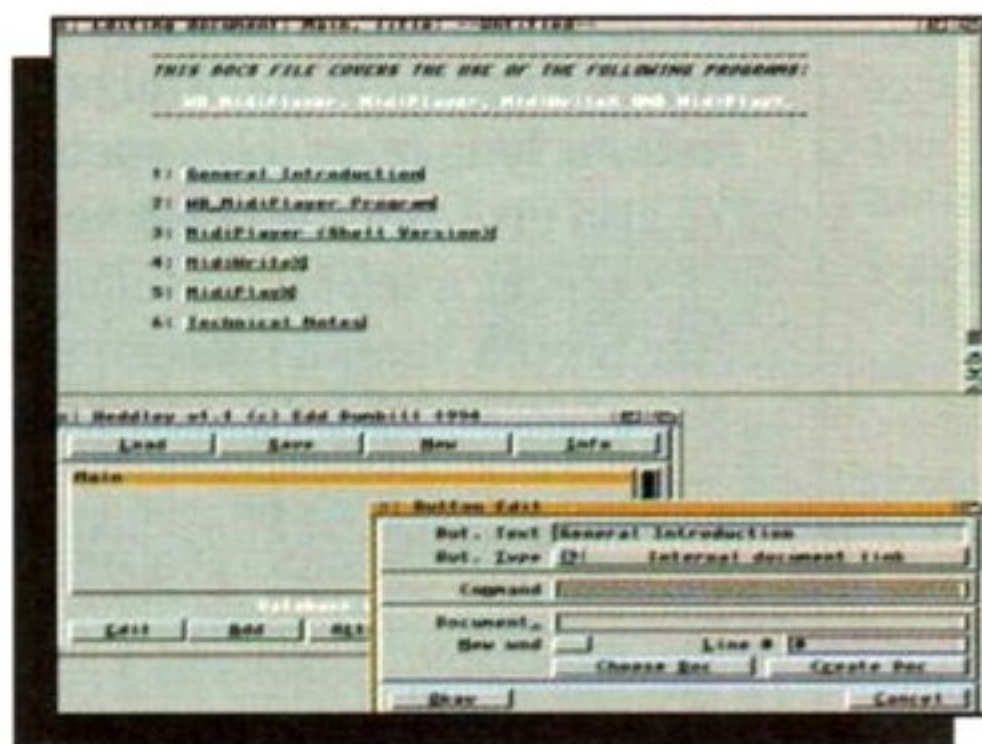


*Heddley itself makes very good use of AmigaGuide to provide on-line help facilities.*

time (using AmigaGuide's dynamic node arrangements).

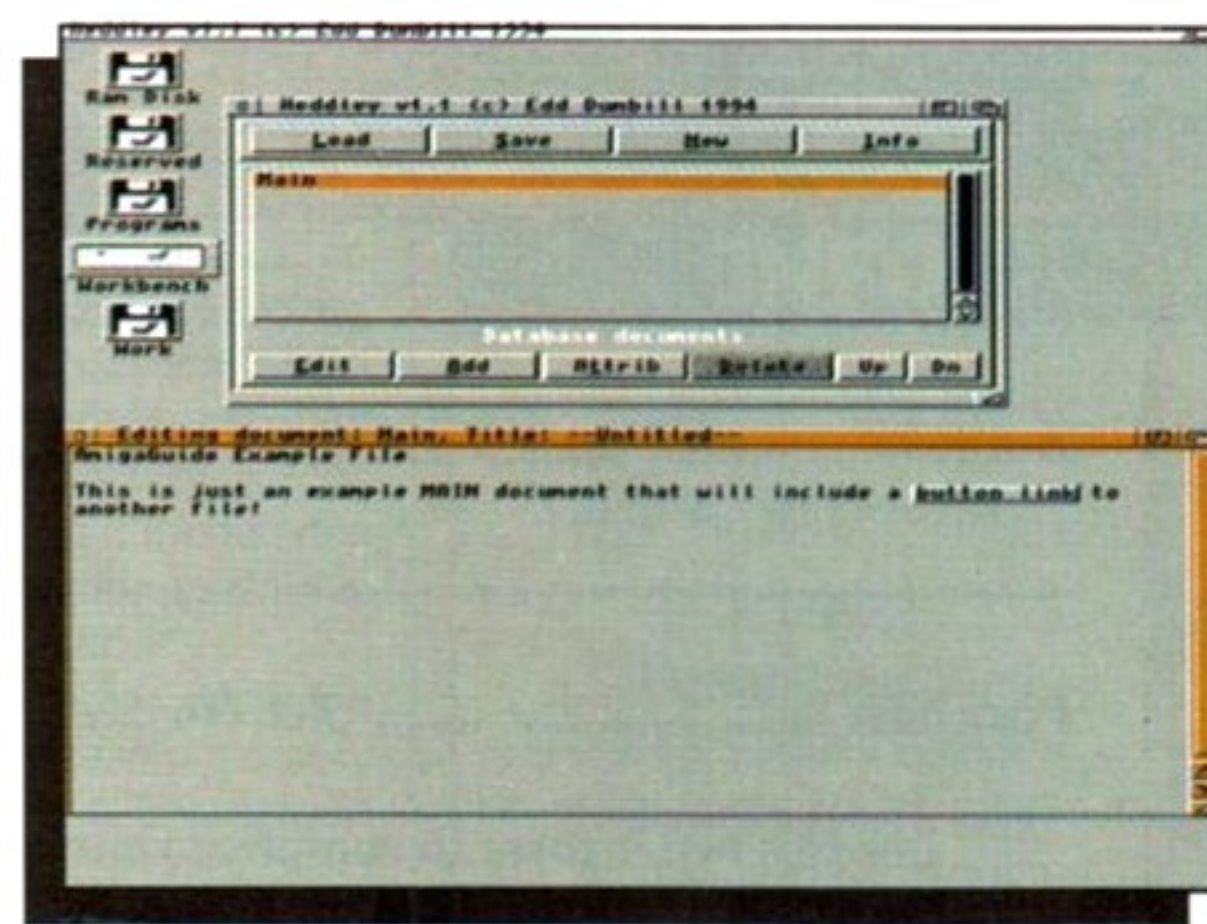
Now although AmigaGuide databases are currently used mainly by developers for providing on-line help, tutorials, and general program documentation the uses of the system is by no means limited to just software developers. There's no reason at all why end-users should not also use AmigaGuide for producing office documentation, hypertext books or anything else. No reason that is - except that up until now the only way to create AmigaGuide readable files was to do it from scratch.

Although simple AmigaGuide databases files are easy to create the job gets proportionally harder as the size of the documentation increases. Creating, and maintaining a large AmigaGuide based text system is not a particularly easy job especially since,



*Heddley may not have stunning front page graphics or colour displays but it really is a nice, functional, tool to use.*

to create link buttons, specify text styles and in short produce almost automatically a fully fledged AmigaGuide readable file from the sections of text that you supply. Heddley's edit window provides the main interface for editing a document. Each loaded document

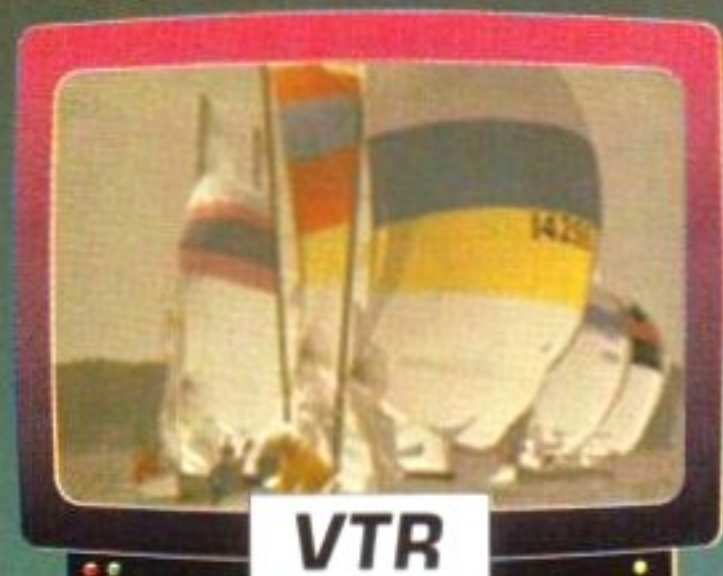




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At last, the new Super-VHS Genlock from Rendale is available: called the 9402, it offers true S-VHS signals throughout, and all but eliminates chroma beat patterns associated with lesser quality formats. Attractively priced at £299 including VAT and delivery, this model offers quality at a value for money price.

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# Photogenics

**T**he Amiga has sometimes been thought to have lagged behind other computing platforms in the ease of use of its image processing and painting packages. Mac software, for example, lets you work with multiple images at the same time in a user friendly environment.

Not happy with having the Amiga outdone in graphics software usability, Almathera and Paul Nolan have produced Photogenics, a package which emphasises versatility and experimentation.

Photogenics lets you work on multiple images at once, with fast processing tools, rescalable windows, and a drag and drop interface - a big step up for the Amiga.

## Nifty Graphics

Working on any Amiga with at least an 020 CPU, 2Mb RAM and Kickstart 3 (i.e. an Amiga 1200), images are held in a true 24 bit buffer and displayed in very fast HAM mode. No extra hardware is necessary. A new technique allows HAM screens to be updated almost instantly. Windows containing an image can be resized, with the image resizing in seconds! You'd be forgiven for thinking you had a graphics accelerator board!

Speaking of graphics boards, Photogenics will also support all major graphics cards like Opalvision, Picasso, Retina, EGS, and framegrabbers like Vlab and Rombo's Vidi range. The preview version we saw displayed an image on a 24 bit graphics card.

**We counted over 50 different real time painting modes and over a dozen types of brushes in the preview version.**

Almathera's aim is to have the program working so you can paint directly to a graphics card's 24 bit display.

Composing is done by simply moving one image around on top of another. Photogenics lets you experiment with your composition without committing yourself to it. If you don't like the position of the image just drag it around a bit more until you do like it!

We counted over 50 different

## PREVIEW

**Amiga artists are in for a treat with the new Photogenics paint and image processing package. Gary Fenton reports back on his sneak preview of Almathera's latest sensation.**

real time painting modes and over a dozen types of brushes in the preview version. (The airbrush is brilliant!)

The full capacity of Photogenics may change as the programming team polishes the software for a soon-to-come launch. Nonetheless, there is just about every kind of draw-

ing mode imaginable. Emboss, line art, solarize, blur, rub through, tint, texturise, sharpen and many more.

An ingenious mode called Displace Map lets you use a second image as a distortion map to effect the main image you're working with. This gives the effect of looking through

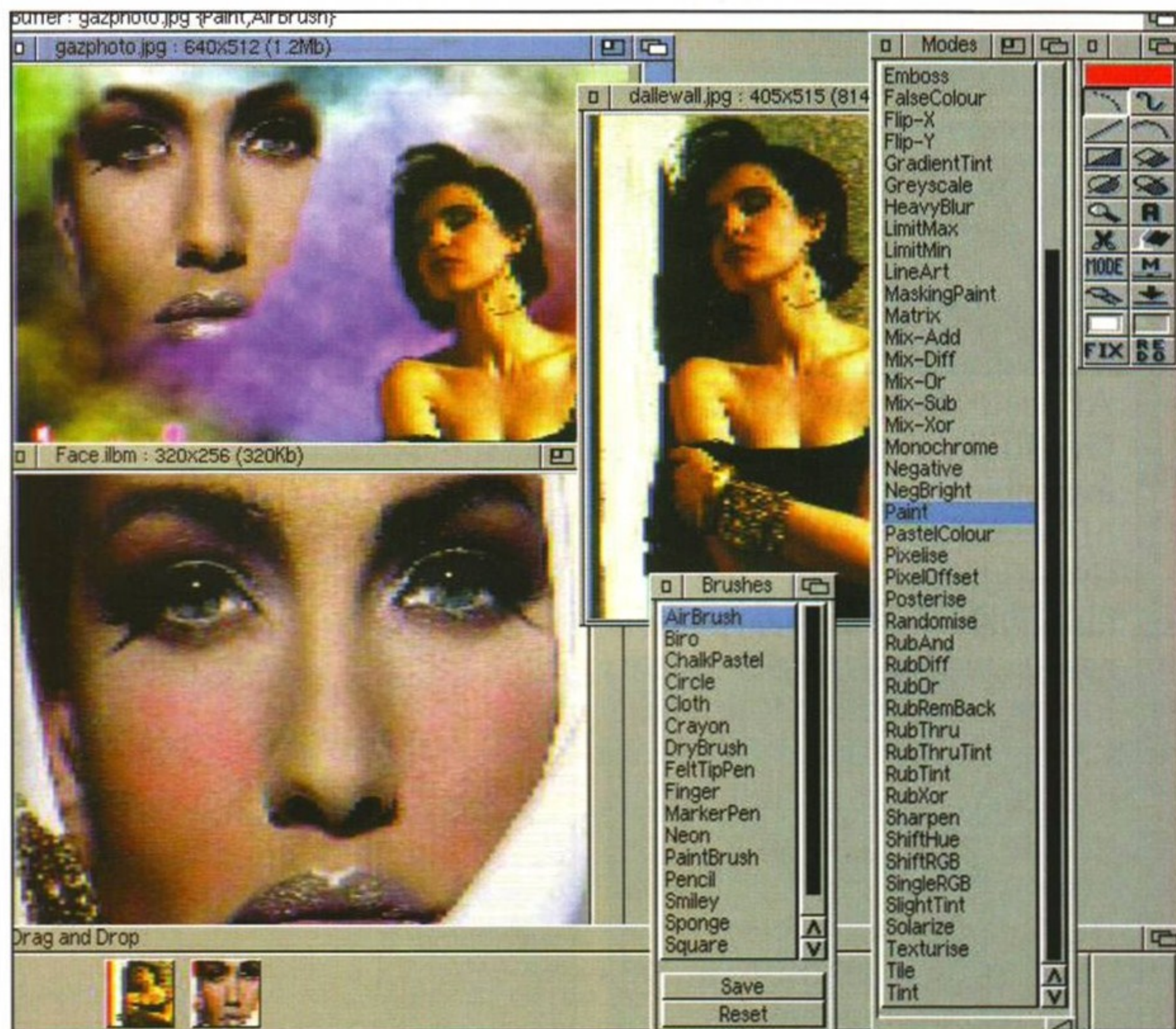
distorted glass or water. Ripples can be created in seconds!

## Modular

Photogenics supports a countless number of file formats in which it can load and save images. BMP, CDXL, IFF, JPEG, GIF, RAW, and RGBN are just a selection. Because the program is modular new loaders, savers, and drawing modes can easily be added to further enhance the power that Photogenics provides.

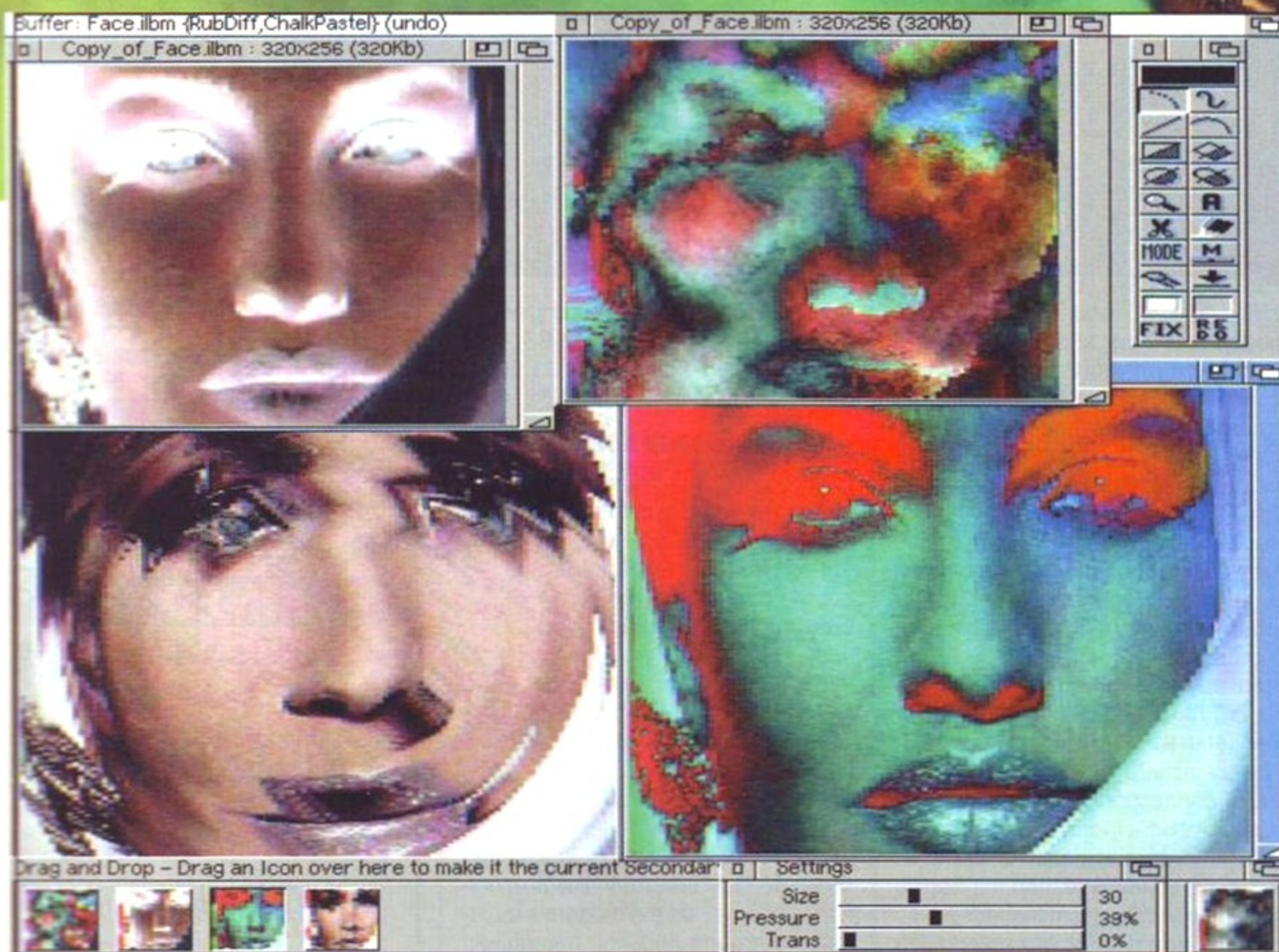
Extra loaders will be provided to generate special effects like Plasma, streaks, ripples, and mandelbrot. The idea is to use these in conjunction with other images to create original and striking designs.

One thing that's obvious about the style of Photogenics is the emphasis on imagination and experimenting. If you try an effect using the ShiftRGB mode and find you don't like



Many images can be worked on at the same time.





*The images used simultaneously can produce outstanding results.*

it, you can click on another mode, perhaps tint. The previous effect on the image will quickly change to a tint. Even then if you're not happy you can experiment further - click on the Mix-Xor mode, for example, and see how that effects your image.

Drawing freehand and you make a mistake? Just use the right mouse button and rub over the mistake to correct it. Other impressive features include the ability to work on a very high resolution image (for magazine or slide production) while using a much lower resolution screen.

Photogenics is going to be big! With a retail price of just £54.95 it will provide truly professional tools for both the budding and professional artist. Next month we hope to bring you the full review of the final version. **AUI**



# Only Connect....

**U**S Robotics have long been known for their excellent quality modems. With the new V34 technology almost if not actually upon us, US Robotics are right there in front with a new Super Fast modem with which to impress us. The full title of the modem is Courier Duel Standard V.34-Ready Fax. (USR) Let me explain all this jargon! If a modem is Dual Standard, this essentially means that it will connect with almost every other modem using the standards V.32/V.32 terbo, HST, and V.FC.

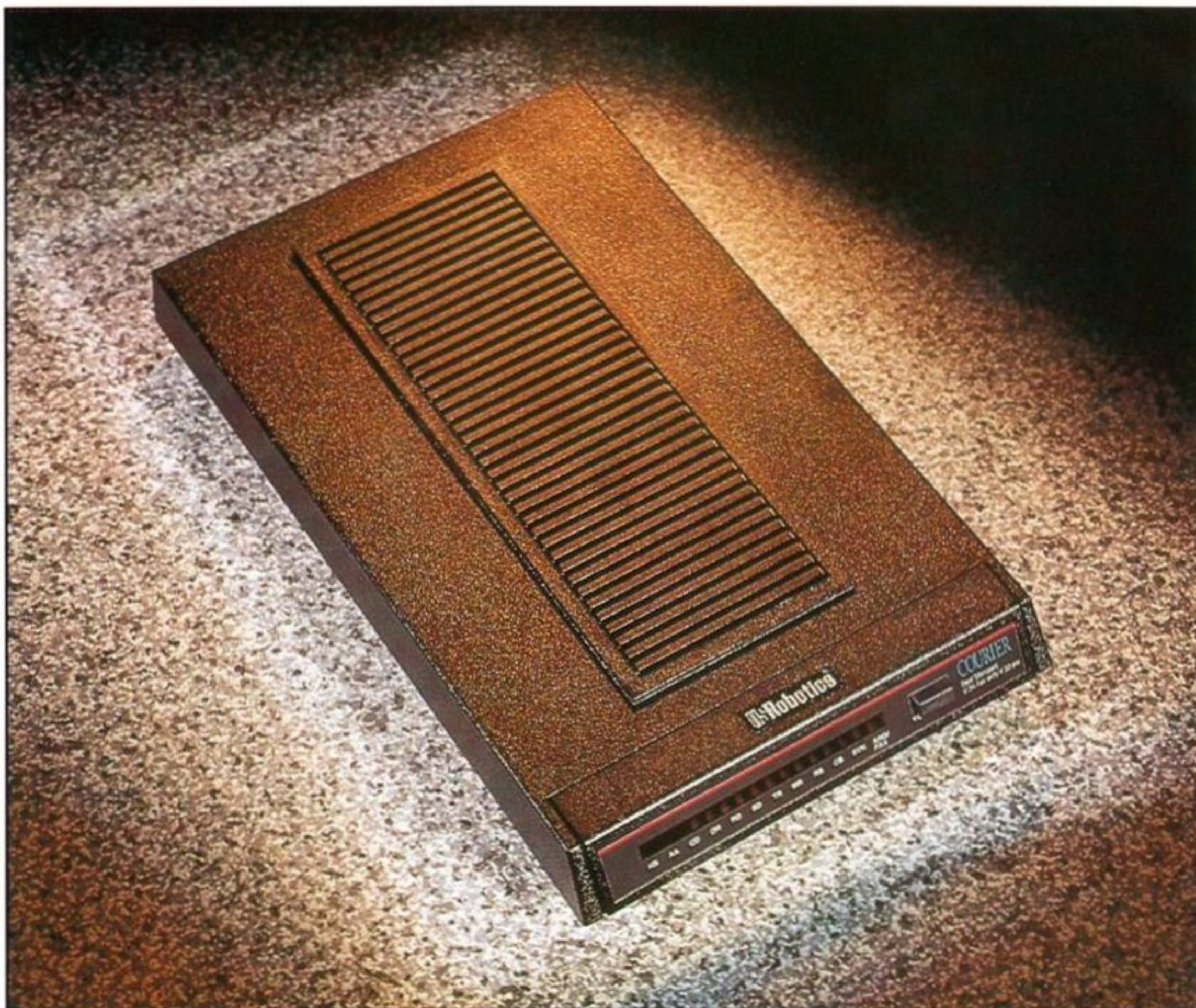
V.FC is the soon to be announced standard for data transmission. Using this standard, connections of up to 28.8K are possible, this is twice as fast as the previous highest speed. US Robotics have had their own high speed standard for some time now. Called HST (High Speed Technology) it allows connection rates up to 16.8K but this and V32 turbo, another highspeed extension of V32Bis which allows connection rates up to 21.6K, are only really included to increase compatibility. The single standard that will matter in the future will be V34. This new US Robotics modem will be ideal for BBS SYSOPS who will need to have a Modem which will recognise the widest range of standards possible so that everyone will be able to connect to his/her modem at the highest possible speed.

When true V34 is officially available, you will be able to upgrade your modem by simply downloading the appropriate file from the US robotics support BBS. This file, when run, will upgrade the flash ROMS inside the modem and off you go again! That is why the USR is called V34 ready.

## Price

The USR modem retails at £499, but I have seen it advertised for as little as £350. The Supra 288 (not Supra V32 as was stated in last months review!)

**Gideon Overhead plugs himself into the universe with a very, very fast new modem from U.S. Robotics.**



retails at £245 and is also a V.FC modem, so why should you spend £100 more on the US Robotics version? Firstly, the most important thing to put across is that the Supra is not BT approved, the USR is. Secondly, Supra have no UK offices, USR do. But I didn't have any problems with the Supra, but if I had, there wouldn't have been a UK phone number I could ring to get help. If you are looking to get your USR modem up and running out of the box, think again. There isn't a serial cable supplied, though the Supra did have one. Serial cables only cost about £10 and it would have been nice to include one. When I had a cable, connection was easy and the modem connected at the best possible speed on all BBSs. As the USR was more compatible than the Supra, I was able to connect at higher speeds on some boards. For example, using

the Supra I could only connect at 14.4K on Burning Chrome BBS. With the USR I could connect at 21.6K as the remote modem also had V32 terbo.

## Speed

I had the luxury of testing the speed against or rather with the Supra 288. I sent various files across a phone extension from the USR to the Supra. I set the throughput rate at 115.2K on both machines which is the maximum speed of the serial port. The connection was perfect first time at 28.8. First, I sent a archived file across the link. The speed was about 3200 Characters Per Second (CPS) which about right for this type of file. Next, I sent an ASCII file which is a lot easier for the modem to compress. The speed was about 5200-5700 CPS which is excellent. It seems that the modem's maximum is around 5400 on unarchived

text files. CIX has just upped its Terminal Servers to 57000 from 38400 baud, and I was able to achieve almost identical speeds from there as well.

## Conclusion

US Robotics should be praised for producing such a high quality, widely compatible modem

One small but excellent feature that the USR has that the Supra hasn't is the addition of a volume slider. This comes in very useful as usually you can only alter the speaker volume in steps. I have only a few gripes, and the main one is in its looks.

It is a strange looking beast. The modem looks like some sort of UFO and has 12 lights along the front which although they give you information, aren't all necessary. It doesn't tell you the speed you connected on the front, which the Supra does.

This would be agreeable but isn't vital as your software should tell you this. Apart from than another success for US Robotics! **AUI**

## RATINGS

### V.34 Ready Fax

<b>FEATURES</b>	<b>97%</b>
<b>PERFORMANCE</b>	<b>88%</b>
<b>DOCUMENTATION</b>	<b>87%</b>
<b>VALUE FOR MONEY</b>	<b>90%</b>

**Overall Rating 90%**

## INFO

Price £499 RRP  
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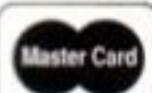
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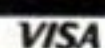
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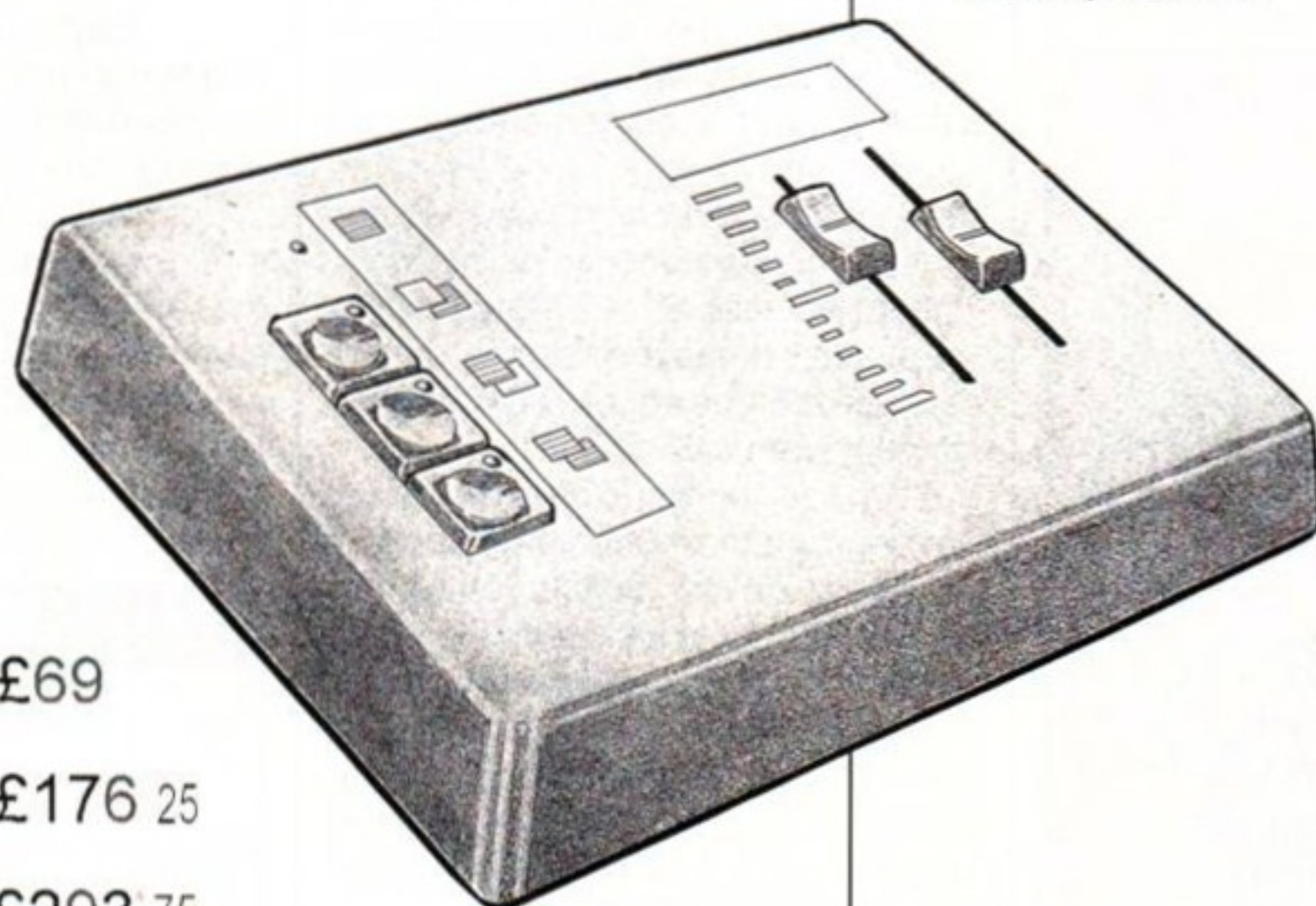
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# EDUTAINMENT

## TWO PROGRAMS FROM 10 OUT OF 10

**10 OUT OF 10 now describe themselves, with some justification for the Amiga, as "the best in Edutainment." From this resourceful and distinctive company, providing educational software in an original and heavily disguised-as-games way, come two more programs. Martin Witton test drives them.**

## FRENCH

**A**h bon! While Structured Spelling was fun (well, it was designed for little persons) 10 Out Of 10 French is more challenging. And isn't that what education is all about, I hear you cry!

Having just returned from an excellent holiday on a gastronomic trail in Normandy (with the lingering perfume of Camembert cheese still in the car) I was full of enthusiasm to improve my command of the language. Why is it that the French speaking in English with an 'eavy accent sound so sharming, while the English attempting to change their vowels sound idiotic? Nevertheless, I have to be honest and say that this program doesn't really 'elp wize pronumciation. It does offer jolly good practice though in comprehension, with the six games offering a variety of ways to improve vocabulary.

Le Flic (The Cop) provides arcade fun while discovering French words, phrases and sentences and Tower offers a stop-the-clock format as correct answers stop insects climbing little Eiffel Towers.

Wordsearch is a challenging game with clues to find hidden French words among a display of letters and Link Up asks you to join up French

words and phrases with the addition of memory testing when the pictures are covered over. Space is featured again, this time in a fast action game. The last game - Stones progresses the player through numbers and days to more complex phrases and sentences.

Designed for the National Curriculum Key Stages 3 and 4 for children aged up to 16, there are 36 specific educational objectives interwoven through progression in each game. The achievement chart shows 180 separate automatic assessments, which makes the program relevant for a number of years. Starting with grade 1, the player has to reach the required level before being allowed to progress which adds to the incentive to improve.

Menus and reports can be presented in either French or English offering the choice of a totally French environment. Once again 10 out of 10 are there with the fun approach to learning, and with 'French' are contributing to students having more opportunities for employment through the EC, as any chance to improve proficiency leads to confidence. A far cry from my school days when we had to repeat sentences after 'Madame' without really understanding what she was saying. Or why! Recommended as a reinforcement of classroom study. *Sept sur Dix.*

*Ooh! La-la. Ze French are, how you say, here.*



# STRUCTURED SPELLING

**T**he vagaries of the English language are such that words cannot be relied upon to be spelt as they sound. One of the earliest lessons my daughter learned was of the 'f' sound being spelt 'ph'. Fortunately her best friend was called Josephine so this concept was quickly absorbed.

Children who have difficulty in reading or have a dislike of books (often the first leading to the second) nonetheless need to have an opportunity to study word formations in order to make sense of them and subsequently to spell correctly. Using a computer program can offer one solution.

for the player. Given that the targeted age range is under 9 years, this leaflet, albeit in larger print could be presented in a more lively way, with simpler language and even a few more graphics - which could be taken from the program.

A feature of Structured Spelling is the ability for parents/teachers to alter the games to suit the child, in any language and any words. For spelling list homework, this offers variety to learning. The program does however, contain a professionally designed word bank of over 1200 words.

The phonic environment makes it suitable for children with dys-

lexia. As with its predecessors, a printout certificate for achievement offers incentive and the child's progress can be monitored and recorded.

As to the games, the arcade-style games needing quick-on-the-mouse reactions instantly appeal. Try guiding the drill past the obstacles to hit the picture which corresponds to the word in Driller. Go-Kart your way round the track collecting up letters to make up the word displayed below and try your hand as a goalie in Keeper by stopping the balls and catching the odd word out. Our favourite was AstroWord, floating around in

*Get it on with the Structured Spelling program.*

Yesn there is a spell checker on most WP packages these days but this is no substitute for writing well in freehand and the confidence that correct spelling brings in any kind of writing. (Being a paid writer is no guarantee of correct spelling ability though. The Editor was horrified to find recently a contributor to **AUI** consistently spelt the word "magazine" with an "s"! I won't reveal the sinner's name to save blushes nor whether the threats of corporal punishment were carried out!)

Spelling Structured as it says on the program, or Structured Spelling as it says on the leaflets, offers the opportunity to study words through the games and exercises and an added bonus is the requirement to follow the instructions carefully. Many a student has failed because he/she failed to read the question carefully so this could be good training.

There are two instruction manuals, one for parents and the other

space looking for words and letters to complete the missions from ground control.

Each game is graded and in addition to the score, elements such as speed and bonus points contribute to silver stars on the high score tables.

Structured Spelling has been designed to help children recognise that most words which sound the same look the same. The sound to sight matching skills that are essential to the ability to spell are central to this package. Highly recommended. *8 out of 10.*

## INFO

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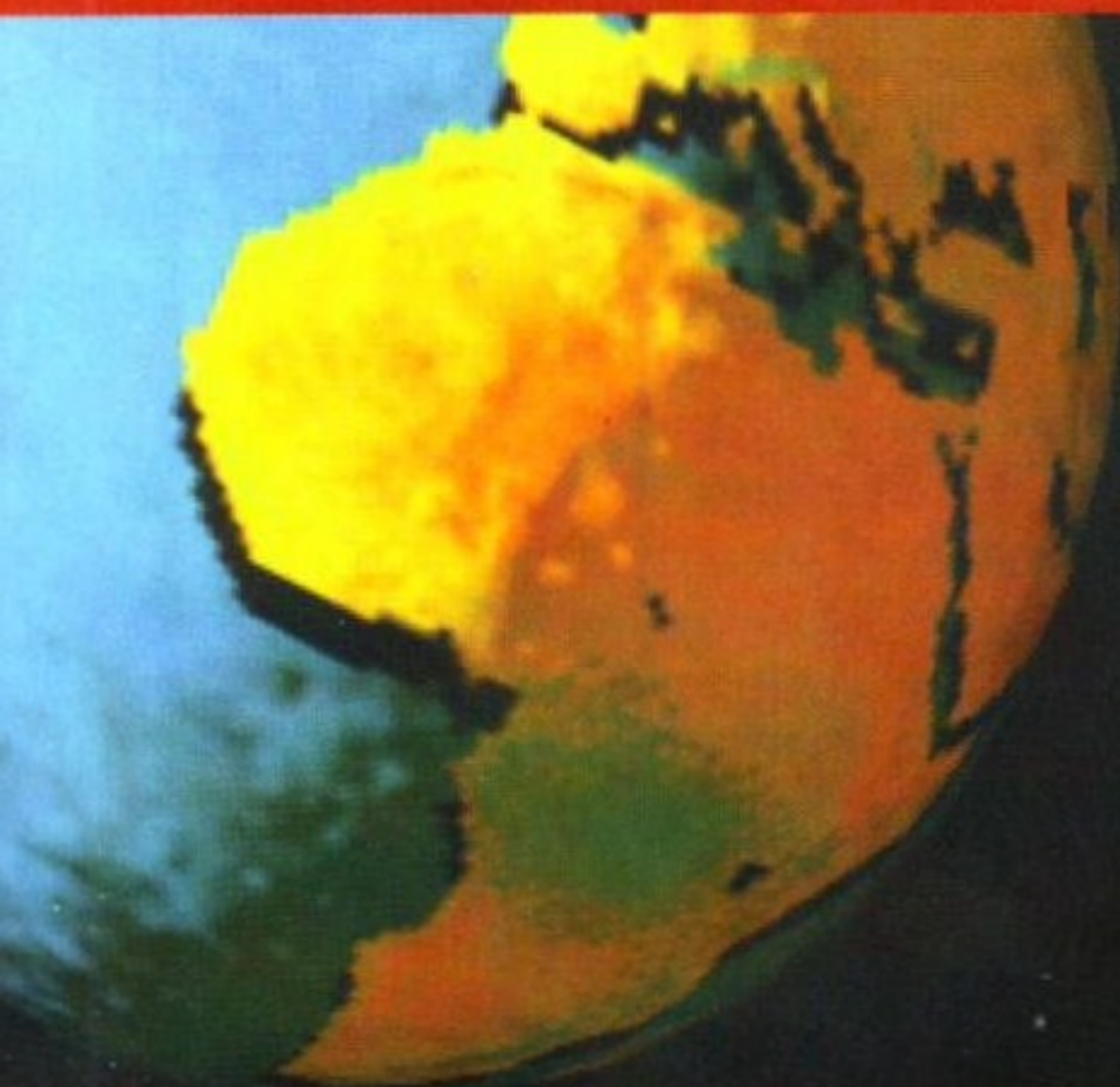
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**N**ever in the history of the Amiga have I heard so much hype about a single product release. Lightwave, it is claimed, is so easy to use that one can undertake whole projects with hardly a glance the manual, flying it, as the cliché goes, by the seat of one's pants.

Well, by the time you've finished reading this article you'll know for sure because I've accepted the "Lightwave Challenge".

10.30 am Wednesday and the package has arrived. It's here for seven days (which means that I won't be able to cheat much if I weaken!)

Here's that blue box containing, let's see, seven disks ready to install on my trusty A4000 040, a massive manual, a smaller addendum... Oh, and there's an instructional video about Lightwave basics, (nice one, NewTek) a dongle and a separate addendum for the upgrade to version 3.5. That's a cue for my first criticism.

benefits as well as cosmetic value of printing a new, integrated manual soon. It's one of those invisible investments which say "This company has real class and we don't skimp on quality." Three or four revisions down the line and that user-friendliness begins to flag. My personal preference is for ring bound manuals which can be updated and pages removed at will. Some people seem to hate them, however. I don't see why, so long as the quality is good. They even lay flat.

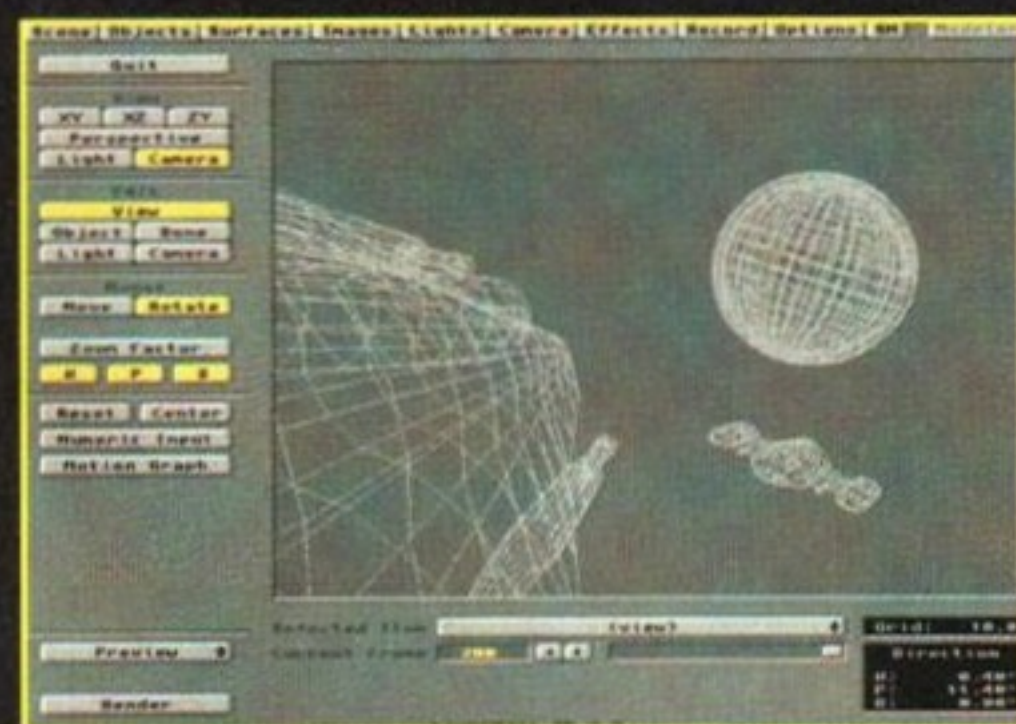
The machine I'm using is an A4000 040 with 10MB ram and an Opalvision card so I can see the output at 24 bit res. It's been about an hour and installation using Commodore's standard installer has been absolutely glitch-free. It would have been quicker but I got so engrossed in the manual that I tended not to notice when I was asked to

# MISSION

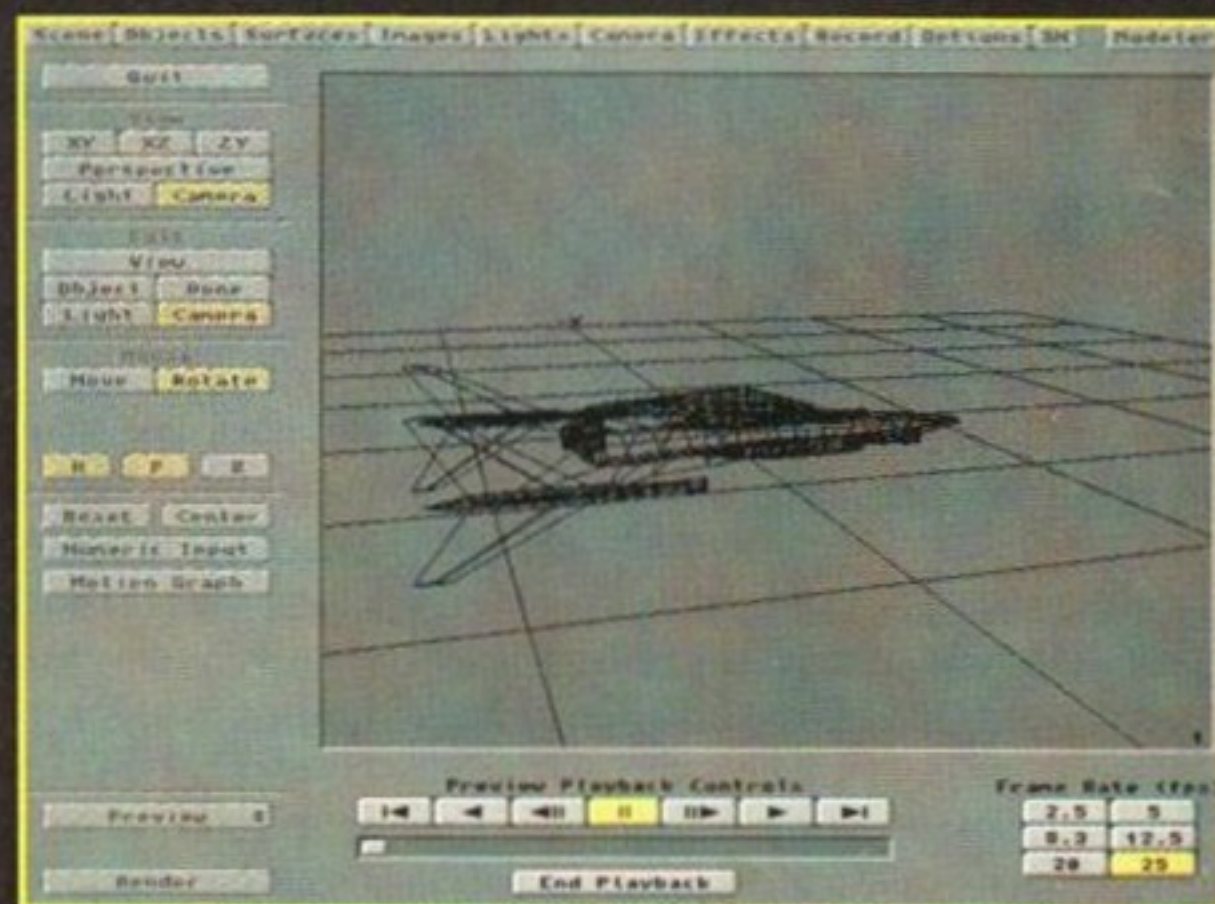
**Altruistic to the last,**  
**Wil Mobberley accepts**  
**the AUI challenge to**  
**master Lightwave.**  
**Just how easy can 3D be?**

first or if you want it that way, a separate installation booklet. That interface! Oh... that wonderful interface! It's true. Most of the buttons do reveal their functions

*Below and Right: Spherizing a spaceship and assigning it as a morph object. The supplied macros conceal more power than I had time to explore...*



*Left: Here's what it looked like setting up a scene.  
Above: Can you guess what everything does?*



**Still frames from the**

An upgrade addendum effectively means you have two manuals which contradict each other. At best this can be mildly frustrating. At worst it can severely hamper the learning process. NewTek have taken a lot of trouble to explain the differences clearly, but I hope they don't underestimate the practical

insert the next disk... At first I was impressed with the manual. You open the cover and page one is a modelling tutorial. "Hey, this is great," I thought. "Straight in and go, huh?" Well, no. The information about installation is in a different section further in and I had to hunt for it. Come on, guys, first things





almost immediately. Without even looking at the tutorial video, sure enough, by trial and error I reckon at least a third of the program is self explanatory and it is so classy. This isn't a piece of software which says "Look at me. I'm almost up to pro studio standard. Compromise a little and I'd be just about usable." This is the real thing.

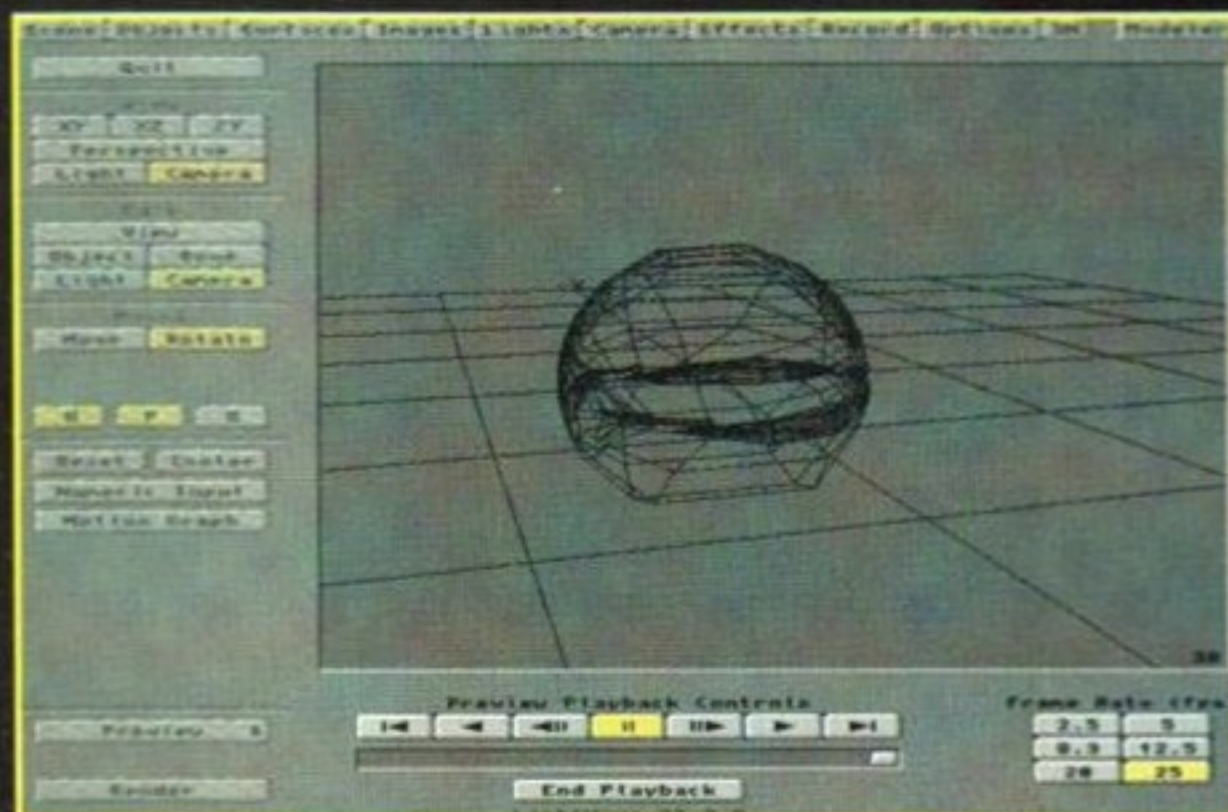
Let me give you an example of what I mean when I speak of Lightwave's sheer class. I built an object in the modeller and then clicked on layout to bring me to the layout (animation) screen. It looked as though my data had disappeared - a fault which I have seen on very expensive high end systems which will allow you to exit without giving the slightest warning about losing data. I've known people lose half a day's work in this manner.

At first I thought that Lightwave had the same bad design until I went back into the modeller. My data was still there! Moreover it is possible to import and export models directly between the two - and

back without even having to exit from the layout editor.

Literally two hours after opening the box and I've already built a ball (pretty easy) and got it to rotate after one false start when the pivot point wasn't in the center of the ball making my planet rotate in a weird way. A quick re-jig and next time it worked perfectly and I built a cycling preview render which didn't kick. All the same, you definitely do need the manual, not so much because you can't do certain things without it but there are good ways and bad ways of doing them. By the time you're down into the nitty gritty you need help but only really in the form of clarification. You know roughly how it's put together and reading the manual is

*I'd like to be able to click on those parameters and have something happen. please.*



bring up little thumbnail pictures showing the objects. An option to make a thumbnail could be included when saving and a utility provided to go through a hard drive creating thumbnails. (This is what Opalvision does with its pictures. Why not a 3D equivalent?)

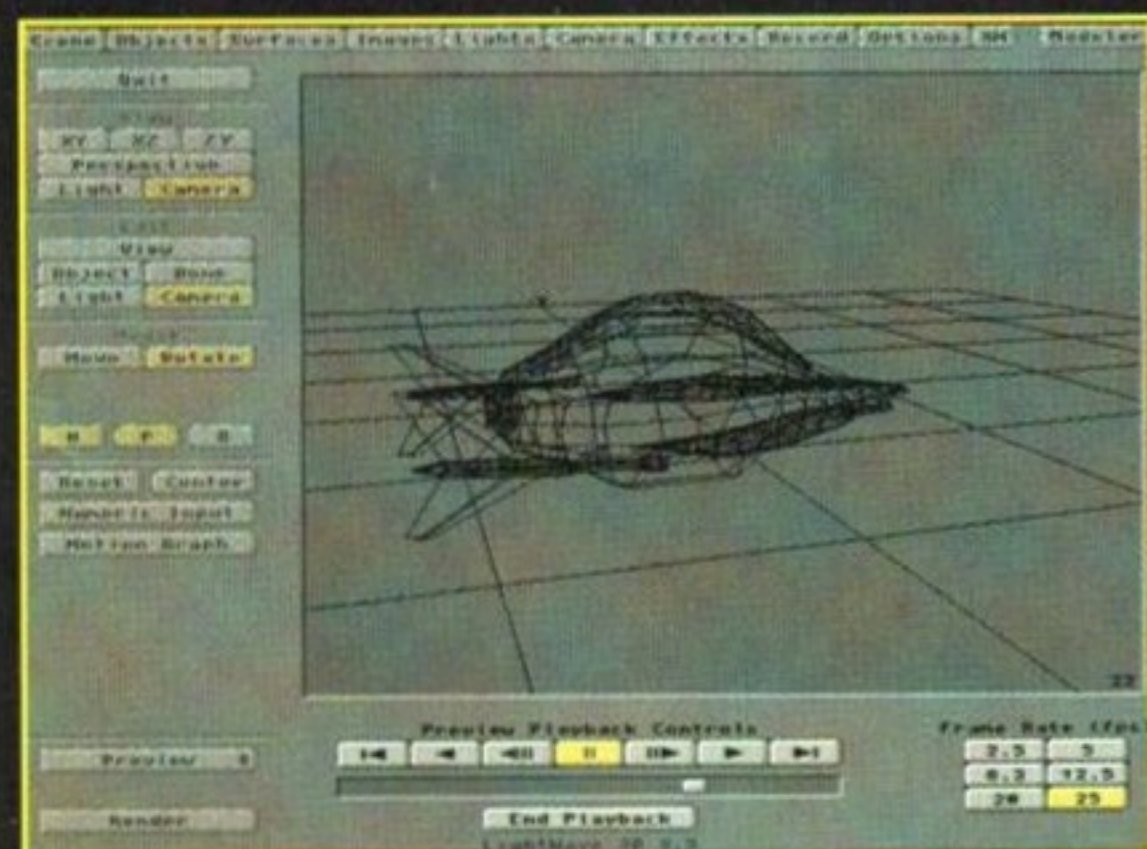
6 hours in and I'm feeling proficient and very confident indeed. I've wasted (wrong word, surely) a lot of time rendering frames and just exploring but in the process I've found a demo space sequence with a gorgeous looking planet so I've decided to cheat by using that as a basis. (Hey, that's permissible! This is about finding a solution to a problem and if I can alter some rendering flags and save some work then I'm silly not to. I understand the principles and I've done it with a simple sphere. All I'm doing now is applying my knowledge to a template.)

7 hours and I'm confident of surpassing my wildest expectations with the Lightwave challenge. I've rendered one disaster where the texture map replaced the atmosphere and not the planet surface but rectifying it has shown me how flexible Lightwave really is. Putting the famous flare in was so easy it isn't a challenge at all. I'm ready to start rendering a sequence. I'm doing a 30 frame, low res, ham anim. It won't do the rendering quality any justice but I'm hoping that it'll compress down enough to go on a disk for you to see it.

There's various changes that I'd personally like to make. Certain global parameters ought to be keyframeable and I was none too pleased to find that I could set up a scene with the camera set to look at a certain object only to find it defaulting back when that parameter is removed, even after setting a key frame. I think it should remember the orientation of the camera if I've keyframed it, regardless of whether the global parameter is set or not.

I'd also like to be able to select a series of frames and just delete them, or insert frames. In short, there isn't enough global control over the animation in this respect, at least not with the kind of ease that the rest of the program makes you start ex-

# IMPOSSIBLE



you are even warned to save an altered object if you want the change to be permanent. You can imagine the convenience of just sending an object out for a tweak and bringing it

brush from DPaint with a standard map of the world on it for the test. Having managed that and got it to rotate, it seemed to me that I should start finding out about lighting. Had

really an exercise in saying "Aaaah. Got it." There's nothing bewildering.

Time to watch the tutorial video and see what's what...

4 hours in and I've gone completely off the brief! Here's why. Having watched the video - which is excellent - I took my sphere and decided to map a

## animated HAM images ...



I just set up a render I could have already met the challenge by the end of the fifth hour. It is to NewTek's credit that I have already begun to aim higher. Talk about easy.

I loaded in some of the demo files provided with the program and started playing with the rendering and I've been having a ball with the high quality demo objects included in the package. Off the brief I am but I'm learning...

I'd heard that the rendering wasn't particularly fast. Well, I think it's pretty impressive, far better than I'd been led to believe. It took a while to work out how to get the Ham8 display render going but it was worth it. For some corporate jobs you wouldn't even need a display card because Ham8 looks good enough but - WOW - put through Opalvision and displayed in 24 bit glory Lightwave renders are fabulous.

Nevertheless, I've already found several things I'd like to change about the program. Have a look at the render feedback screen for example.

See all those flags like anti-aliasing on/off? Why can't I just click on them to alter them there and then - or at least transport me to the relevant page and arrange for me to return when done? Those parameters are splashed across the camera and record screens. It could be tidier.

I also think it was dumb to remove the save/load options from the preview menu. Put them back please, just for convenience.

While loading in the demo objects it occurred to me that it would be very flashy if the menu could



pecting. These are just niggles, believe me.

8 hours in and I suppose that constitutes a working day. It's actually day three but I've had to work for a living as well as having all this fun. I've logged the hours however and can confirm that the standard Ham animation test render I've produced was easily achievable in that day. I've got my light changing in intensity as my globe rotates in a 30 frame cycle. A third light is crossing behind the camera left to right. Moving the camera about would have been a cinch but I wanted the anim to cycle.

My conclusion? Lightwave is stunning, sensational, amazing, exciting, thrilling, awesome, breathtaking... Do you get the message? As for learning it in one day, well, yes

and no. One day is enough to have the basics sorted out and know one's way around the program. The modeller would take me a little more exploration to get to grips with properly but if the tutorial videos available are as good as the one supplied with the package then it wouldn't take long. By the end of the seven days I was fiddling around with morphing objects.

Of course, Lightwave isn't perfect. At least one industry friend, amazed by my results, stated that Lightwave knocks spots of a certain £20,000 3D package used extensively in the TV industry and they strongly advised me not to mention it by name. It's not good to make enemies who are that powerful. Just take my advice and don't buy anything, even high end software, without taking a good look at Lightwave first. It's your money! A couple of issues back, I declared that comparisons between Amigas and SGI platforms were really rather silly. Lightwave (especially with the Raptor (see AUI/December 1994 page 28) to enhance (an

understatement) speed changes all that. I suspect that industry myopia regarding the Amiga may well prove to be costly for one or two studios as they see their 3D work moving into the hands of Lightwave operators who can afford to undercut them because they've had to invest so much less. Lightwave is not just a fully professional product. It is one which compares very favourably with programs way above its price

bracket. Already NewTek are adapting Lightwave to run on other platforms. I have mixed feelings about that, but at the very worst the trusty Amiga will enable anyone willing to do a little work to train for a potentially lucrative career. I think Lightwave operators are going to be in demand.

Many thanks to Ramiga International for the loan of the review copy. AUI

## A Message to Imagine and Real3D programmers.

Reviewers, be it of film, video or computer software, are often regarded by creatives as parasites, there to pick holes in something which they couldn't even begin to do themselves.

I'm not a programmer. I'm a computer animator/graphic designer and I have tremendous respect for you programmers. You are cleverer than I'll ever be. Real3D and Imagine are excellent programs. They have been the Amiga 3D benchmark for some time and have been, still are and will continue to be used professionally. Certain features are undoubtedly superior to Lightwave but, nevertheless, Lightwave outclasses every 3D system I've ever seen for its sheer accessibility. It is a formidable opponent for you. I don't want to be cruel or belittle your achievements but I think you should either consider taking your most impressive features and adapting them as plug-in modules for Lightwave or completely redesign your interfaces.

Like it or not, Lightwave is here to stay and has redefined Amiga 3D, transforming expectations overnight. It's the new Amiga standard and has to be accommodated.

People are going to miss out on some of the fabulous effects which Imagine offers, for example, because the results simply don't justify the time and effort needed to access them. Lightwave could do with more parent/child control, a strong feature of Real3D. So many features of your products ARE impressive - and not offered by Lightwave - but they are submerged in the depths of needless complication. Fine as your products are, Goliath has arrived and he's wearing a crash helmet.

Now you have a Lightwave challenge of your own.

Whoa! Right image, wrong surface. I kinda like the look of it but it's not what's needed.

Here's a render of the default planet that I'm going to cheat with. I added the flare and it was so easy it's almost disappointing.

We shall invade the Earth. Choreographing something like this is so easy. The ships are demo models which are supplied with the program. I didn't expect it to be this good!



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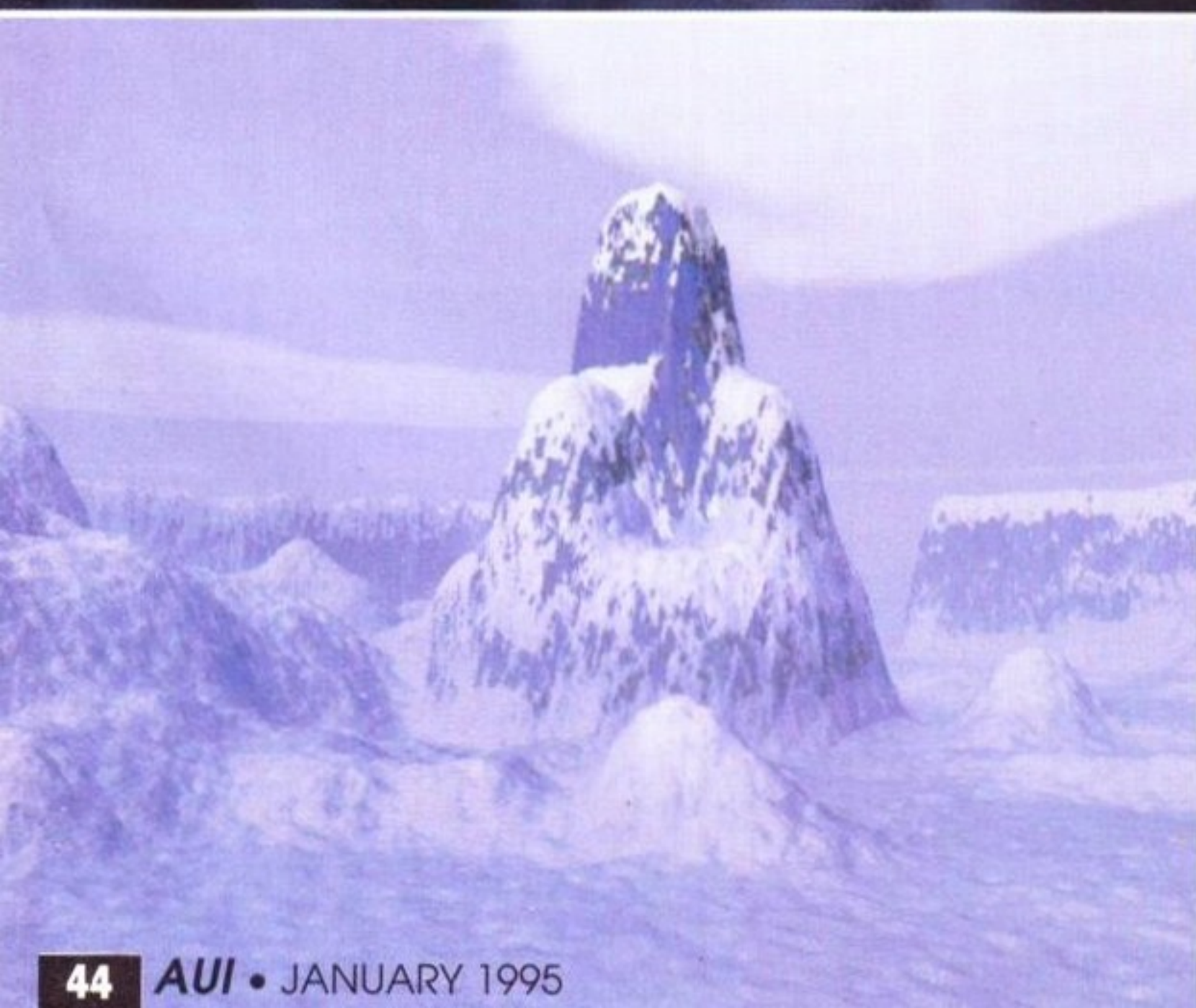
# Visions of

**Lightwave has been possibly THE product of '94, probably receiving more coverage than any other Amiga development...**

All the images on these pages were rendered by A&B Photon Graphics, who are self-confessed addicts of AUI.

These stunning visuals were rendered using Lightwave and a beta version of VistaPro V3.1 (which is going from strength to strength, judging by these pictures). Rendered at 1600 x 1280 in 24 bit colour, the printing process can hardly do them justice. A&B Photon Graphics are currently working on a fifteen minute film, created entirely with the loveable Amiga.

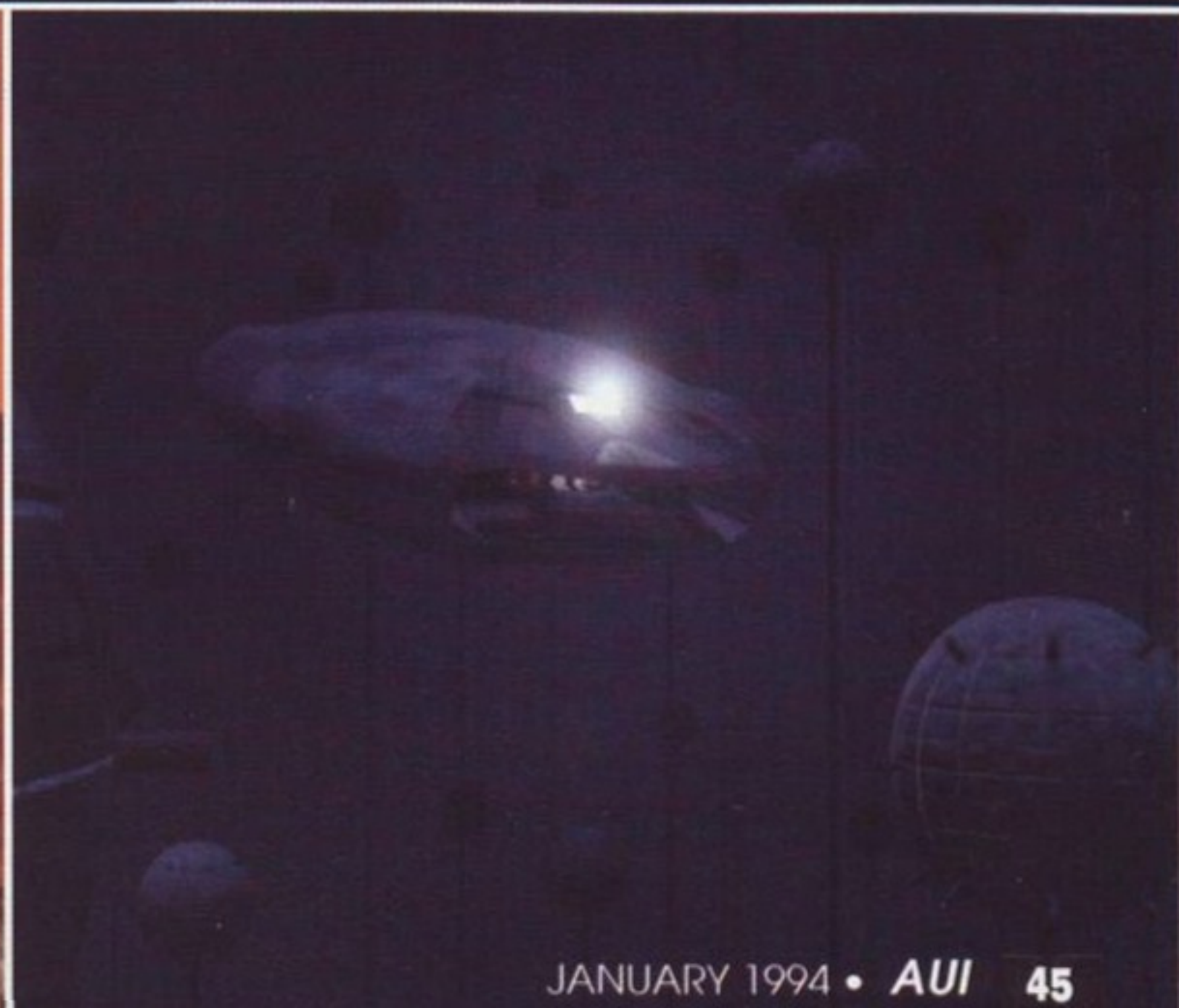
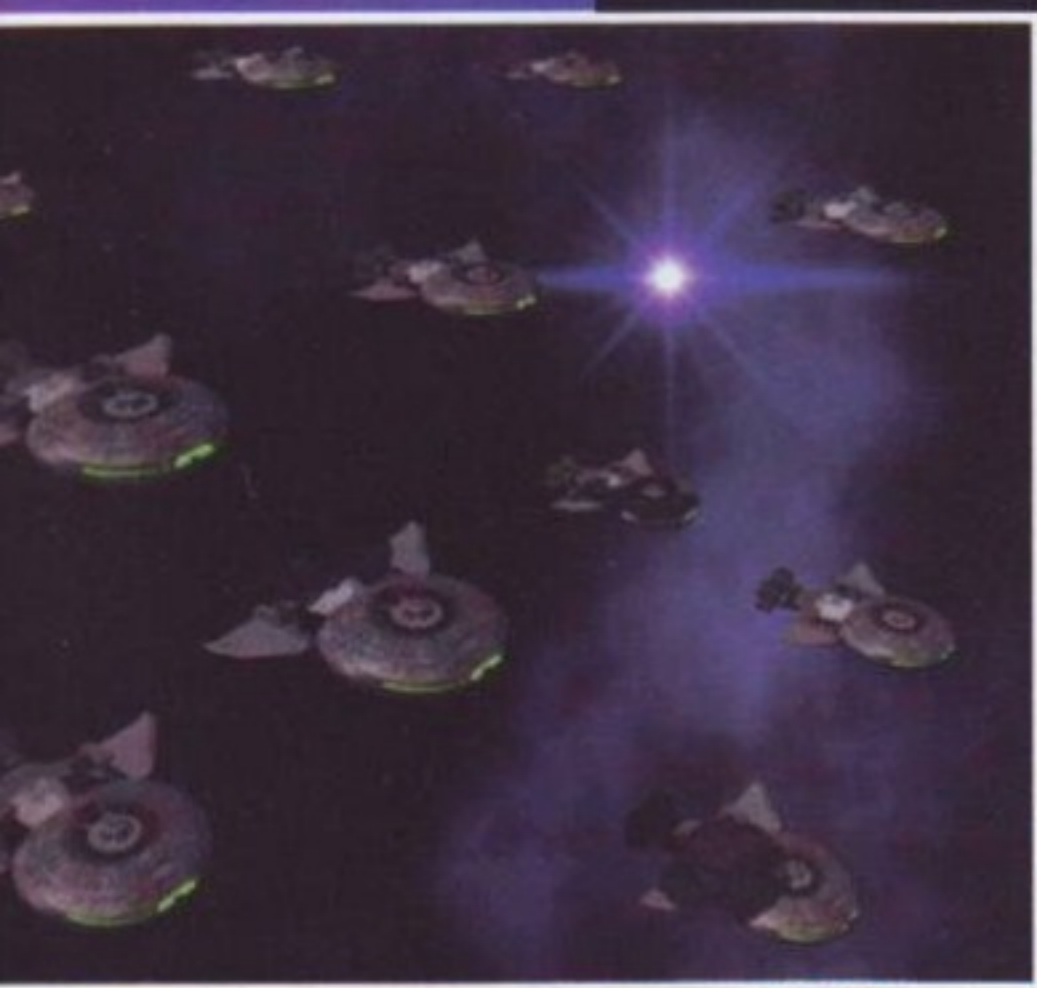
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# Perfection

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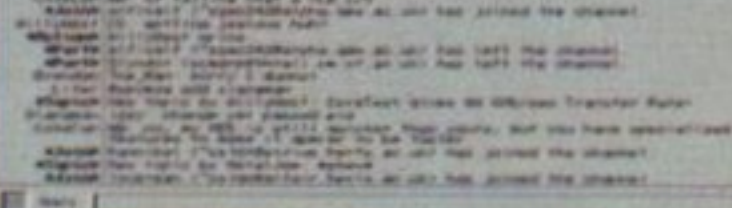




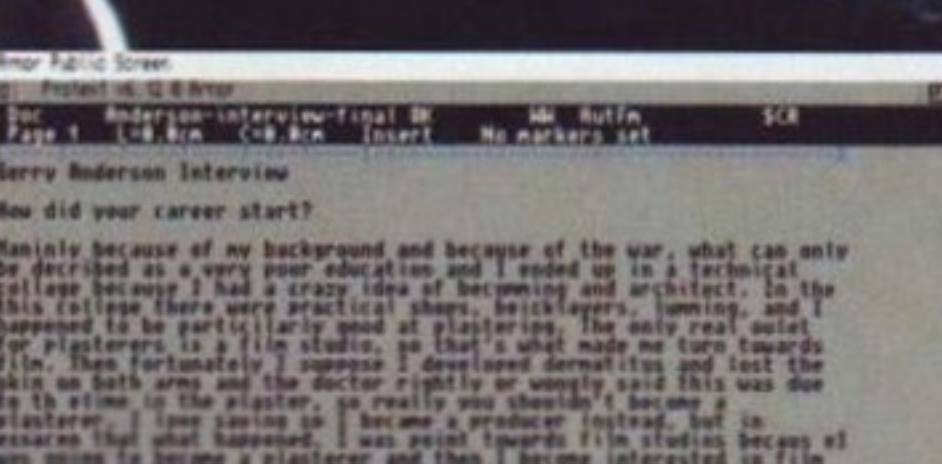
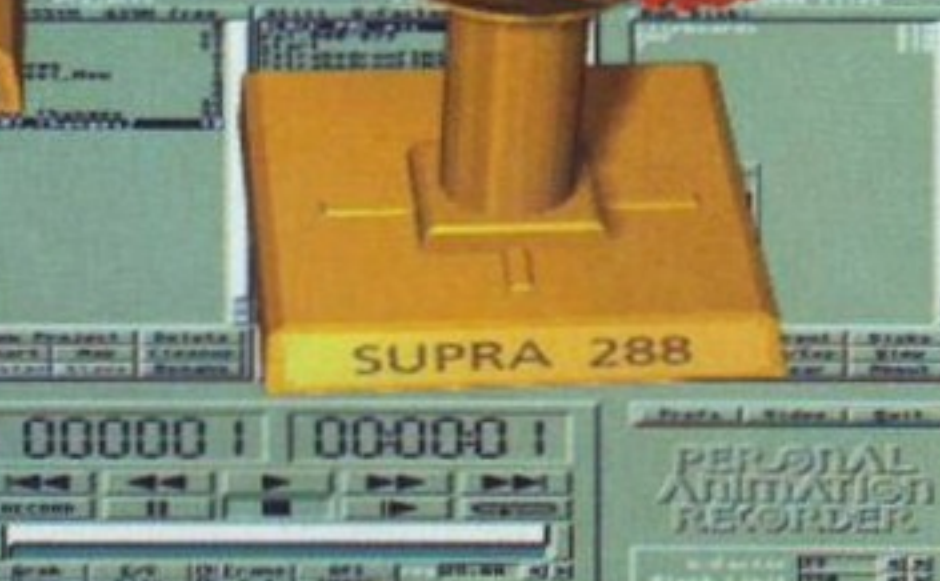
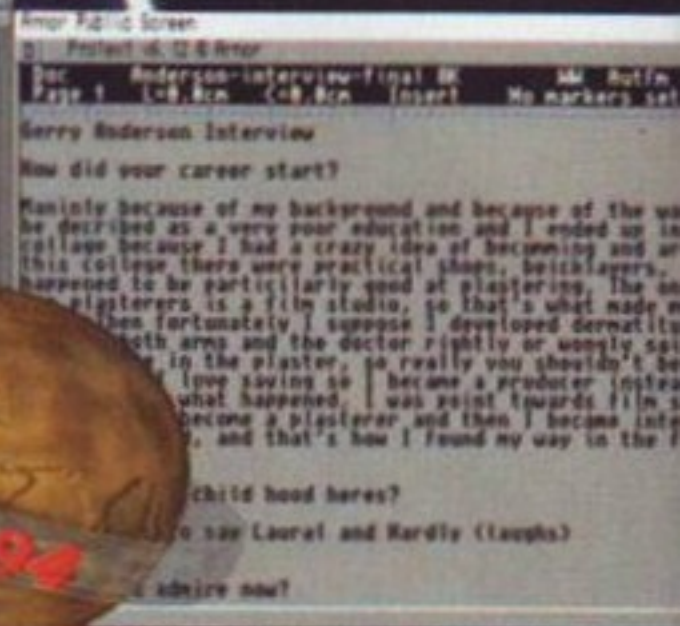
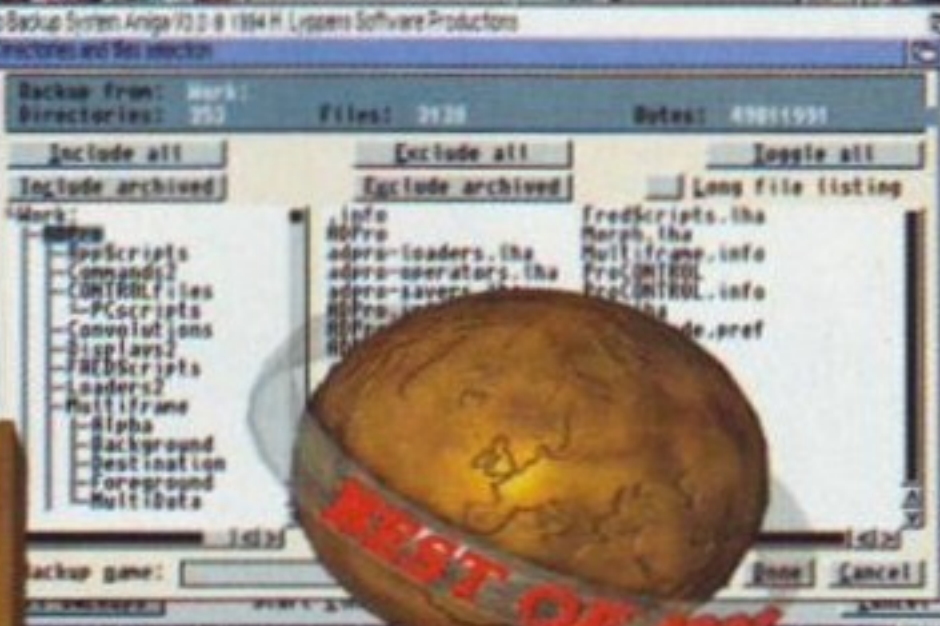
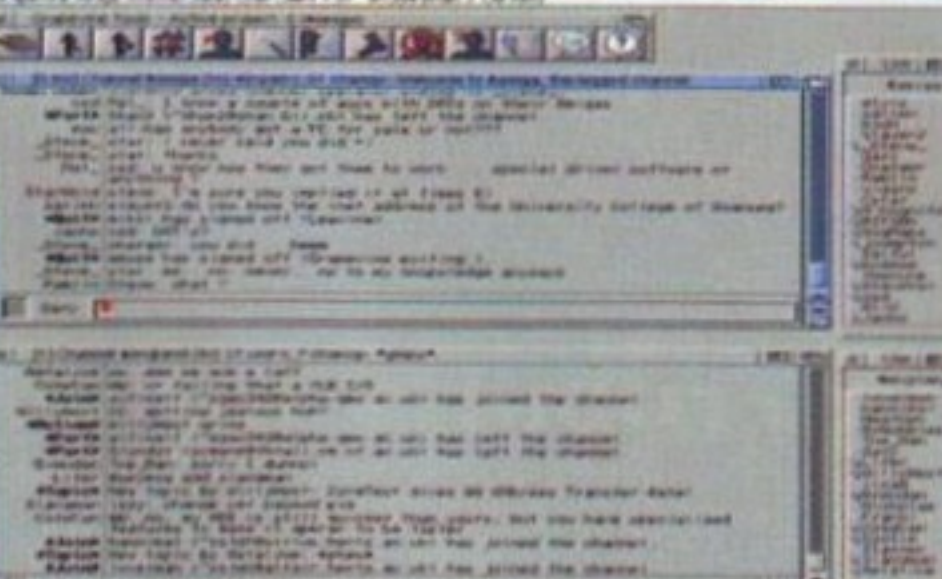
There are ups and downs to most things and what happened today was no exception. The flowers were out and the air was sweet as the men went about their business jumping from roses to daisies as we looked on.



There are ups and downs to most things and what happened today was no exception. The flowers were out and the air was sweet as the men went about their business jumping from roses to daisies as we looked on.



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**"It was the best of times... and the worst of times."**

## 1994 - what a year!

**B**razil won the World Cup, there were free elections in South Africa, a giant comet collided with the planet Jupiter and..erm... well that's more than enough for one year isn't it?

For dedicated Amiga users it's been especially memorable; one of the most action-packed heart-stopping roller-coaster rides of a year in the Amiga's history. In case you've been cowering under your chair since Commodore first got into financial trouble, here is a brief recap of some of the highlights and lowlights for the Amiga of the last twelve months. As the comet sped towards its inevitable appointment with doom - no, not the PC game - on Jupiter, Commodore hit not the skies but the skids. In April, the U.S. company went unceremoniously bust and the control of the company, or what was left of it, retreated to the relative legal safety of Trustees on the not unpleasant islands of the Bahamas. They wanted money and lots of it immediately to satisfy some very dissatisfied creditors.

So the whole Amiga platform was put up for sale and was subsequently inspected and discarded like a mere trinket by several potential potential buyers before, it seems now likely, being rescued from the very maw of oblivion by, of all people, the management of Commodore UK, whom a lot of users thought should have been running Commodore all along.

All this boardroom dealing was too much for some major retailers like Dixon's and Curry's in the UK who started selling off their remaining high-street stock of Amiga machines cheap. CBM Germany dumped machines on the market giving a few delighted Amiga fans some unexpected bargains such as new A1200s and CD 32s for under £100. Meanwhile many

# 1004 The Best of Times?

**Michael Rumbelow leads the AUI team back over the year that could be the beginning of a new era for the Amiga, to find six of the best and a look at the rest.**

third-party Amiga developers held their breath and several actually turned Big Blue and

keeled over, or else leapt feverish from their beds and fled screaming, vaulting the walls of

the institution which is the Amiga, towards the less psychologically trying PC market. Looking back it's amazing, then, and a credit to the soundness of some developers given the distraction of all the hair-raising twists in the machine's fate, that the last year has also seen the release of some of the best, most innovative software and hardware ever for the Amiga.

Forexample, the first ever Full-Motion Video cartridge for a home computer, a new direct-to-hard disk digital video recording package, and the long-awaited release of LightWave for the PAL Amiga making it probably the best value 3-D image creation platform in the world. Amongst dozens of other excellent packages.

Here is a round-up of the best of the last year's releases to come under the expert if sometimes bloodshot and almost pupilless eye of an AUI reviewer. Plus AUI's 'Six of the Best from '94': the annual hotly contested selection of the six most significant products of the last twelve months.

## 6 of the Best

### LIGHTWAVE 3D Animation Software – NewTek

**1** The premier 3D animation program on the Amiga and, for the money: about £560, probably any platform. You might have seen some LightWave produce on US-made TV programs like Babylon 5 or SeaQuest DSV, now at last European Amiga-using 3D fans can stop striding about grinding their teeth and muttering anti-American gibberish because they can go and buy the new PAL version in their local shop. Lightwave has easy-to-use and intuitive interface, comprehensive lighting effects, textures, motion editing, anti-aliasing; the whole caboodle. An instant classic and a timely shot in the arm for the Amiga.

NewTek's LightWave, about £560: 95% in AUI August '94.  
Contact: Ramiga Ltd. Tel: 0690 770 304



### SX-1 CD32 EXPANSION Module – Paravision



**2** Sometimes the name of a product is carefully chosen to trigger unconscious associations which make you want it. So for example Sony's new PSX might be meant to sound like 'Pure Sex' causing millions of pubescent teenagers to go and buy one immediately. Maybe that's why the CD32 expansion module is called the SX-1 ('sexy one'). Anyway it's a great product, whatever it's called, allowing you to use your CD32 as a home computer and plug in everything like floppy drives, a keyboard, a hard drive, modem and all the rest. Looking at the Philips CD-i these days: are there seriously any CD32 owners who are kicking themselves thinking, oh bother! I should have got a Philips CD-i? Somehow I think it's unlikely. Many people bought the CD32 partly because of this promised expansion capability, and here it is. Well worth £200. For future models we suggest SX-7 or maybe even SX-8.

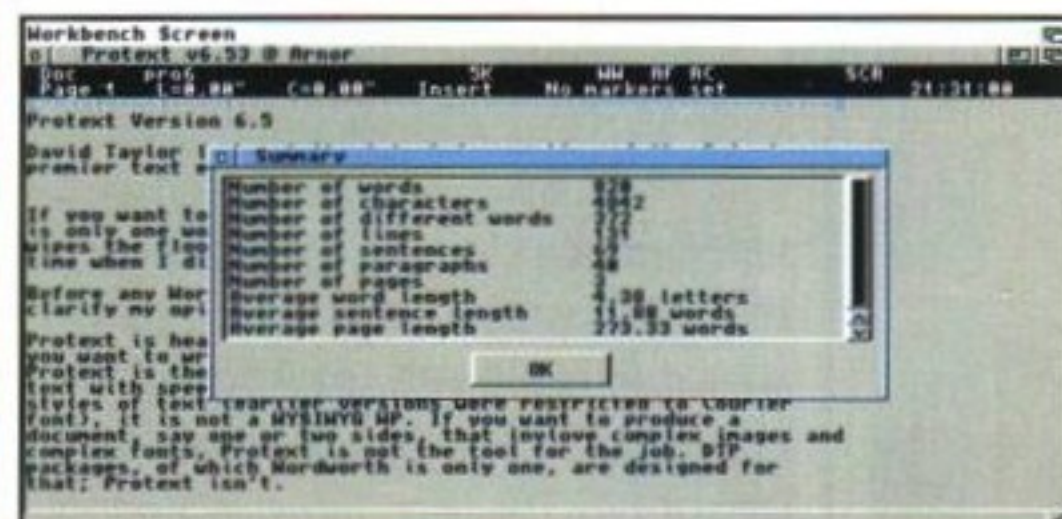
ParaVision's SX-1 module £195 : 94% in AUI October '94.  
Contact: Indi Direct Mail Tel: 0543 419999



## PROTEXT 6 Word Processor – Arnor

**3** OK I know it doesn't play to what are normally thought of as the machine's strengths, but the Amiga has always had a sensitive spot about not being considered a serious document processor. The new version of the ProText 6 word-processor reviewed this year dispelled this myth.

A quick, simple spell-check feature which lists all queries in the document, options to save in a range of formats, a 43,000 entry thesaurus and even an



A winning wordprocessor.

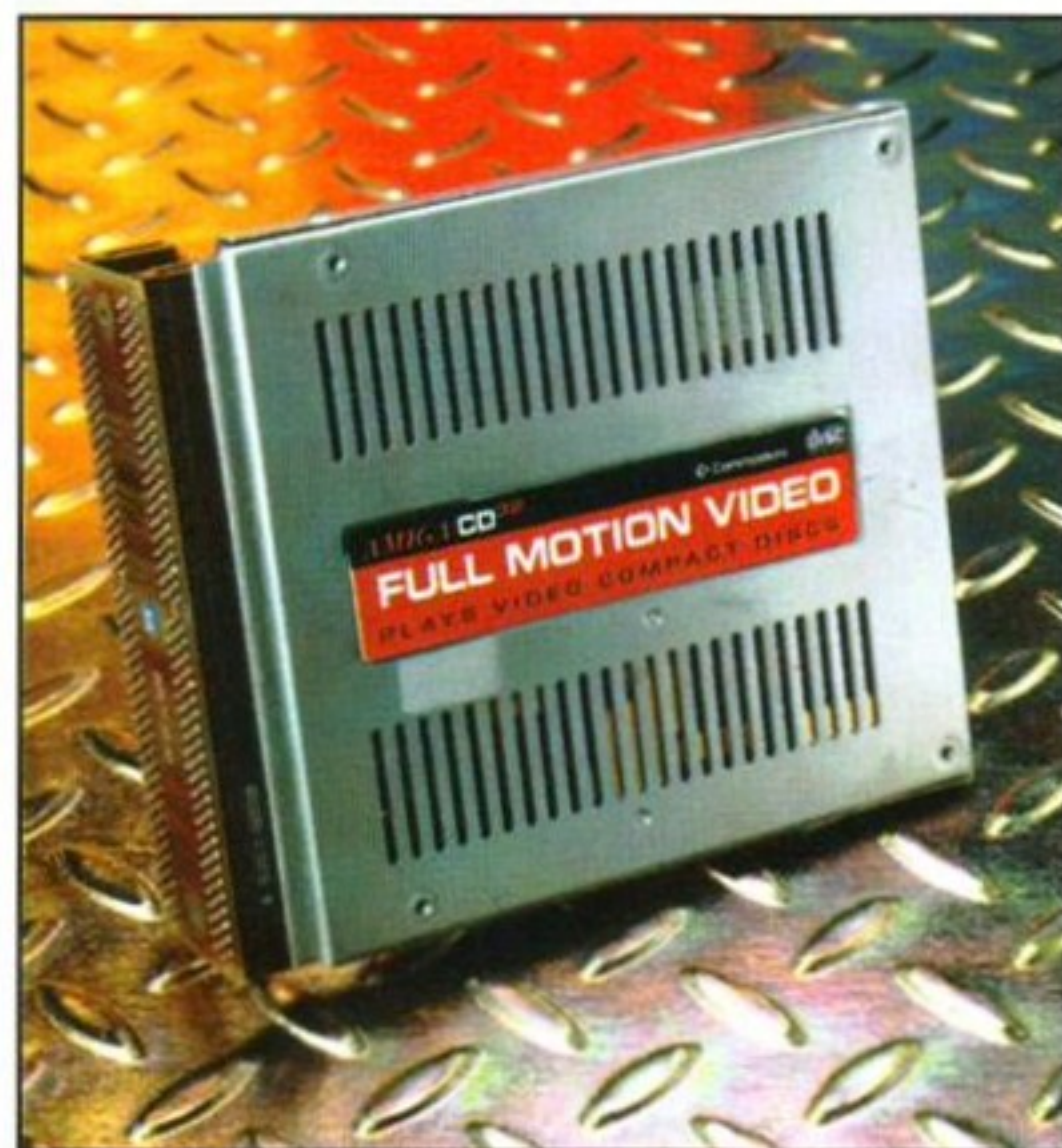
anagram finding feature for crossword fans make ProText the appointed monarch of Amiga dedicated word-processors. For easy creation of flawless documents on the Amiga you can't beat it.

ProText 6.5 £99 : 96% in **AUI** December '94.

Contact: Arnor Ltd. Tel: 0733 68909

## FMV CARTRIDGE: CD32 Add-On To Play Video CDS – CBM

**4** This £200 cartridge turns the CD32 into the cheapest VideoCD player in the world. There still aren't too many VideoCDs available yet and even fewer CD32 interactive multimedia CD-ROMs which incorporate full-motion video, but this is all bound to change. For anyone who hasn't tried out a VideoCD on a CD32 with FMV, it's very addictive; rock-solid freeze-frame, instant scene repeat, instant



Plug this into your CD32 and watch Video CDs.

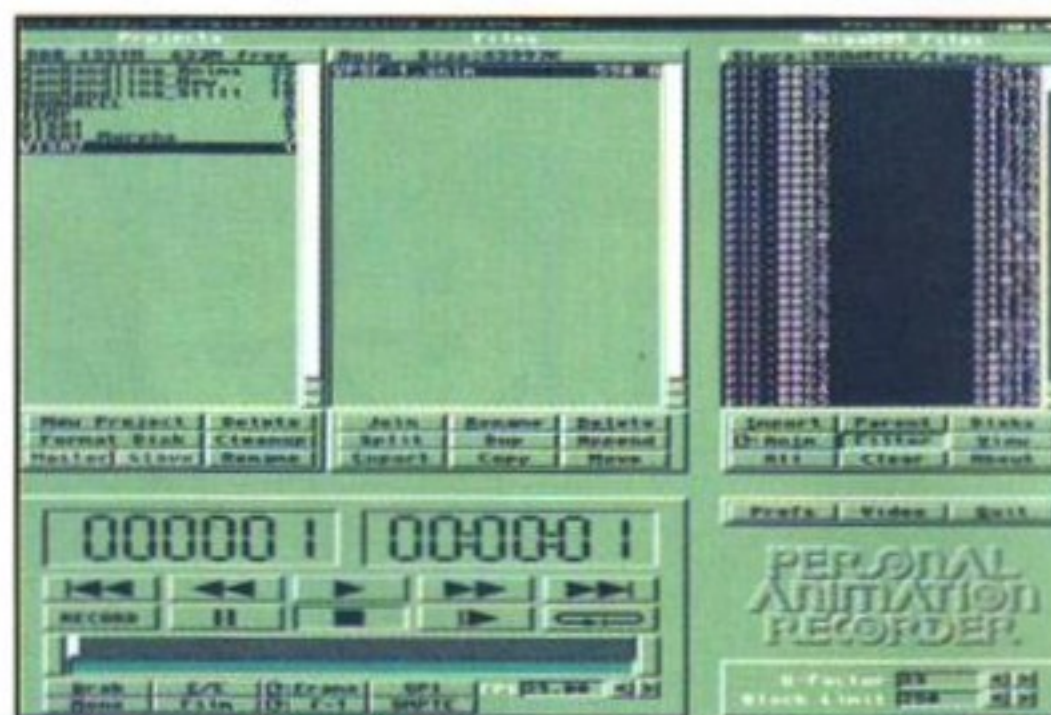
forward and rewind. You soon get used to it and start to find standard VHS video excruciatingly slow to move about in. Probably the single most impressive add-on you can buy for a CD32. In VERY short supply until Amiga manufacture gets back to happening.

FMV cartridge, £200 : reviewed in **AUI** March-April '94

Contact any CD32 dealer - you can only try..

## PAR BOARD Direct-To-Hard Disk Real Time Video Recording – DPS

**5** The Personal Animation Recorder (PAR) card lets you take video from any standard source like a VHS, S-VHS, Beta-Cam or other player and record it, real-time, onto a hard disk as a 24-bit, 25-frame per second animation file. You can then perform some basic editing operations (though nothing too sophisticated; the makers stress that this is



I have the PAR.

not a true non-linear editing tool) and output your results, also in real-time, to video-tape.

The PAR board is a very powerful tool for recording to hard disk and manipulating video or high quality animations and then outputting them in real-time to tape. It's a whisker away from being the full non-linear video editing system which is the current holy grail of Amiga desktop video. According to one **AUI** test driver: "Dreams really come true", and another "The best piece of Amiga hardware since the A1000".

The PAR system, about £2900. 90% in **AUI** June '94

Contact: Digital Processing Systems Ltd. Tel: 0252 718300

## SUPRA 288 High Speed Modem SUPRA

**6** After years of seeming rather mysterious to outsiders with its strange grating bleeps, typically chronic user interfaces and wierd \*<1:~) jargon, Comms is at last becoming more popular. With the number of people connected to the Internet, for instance, is supposedly currently doubling every few months.

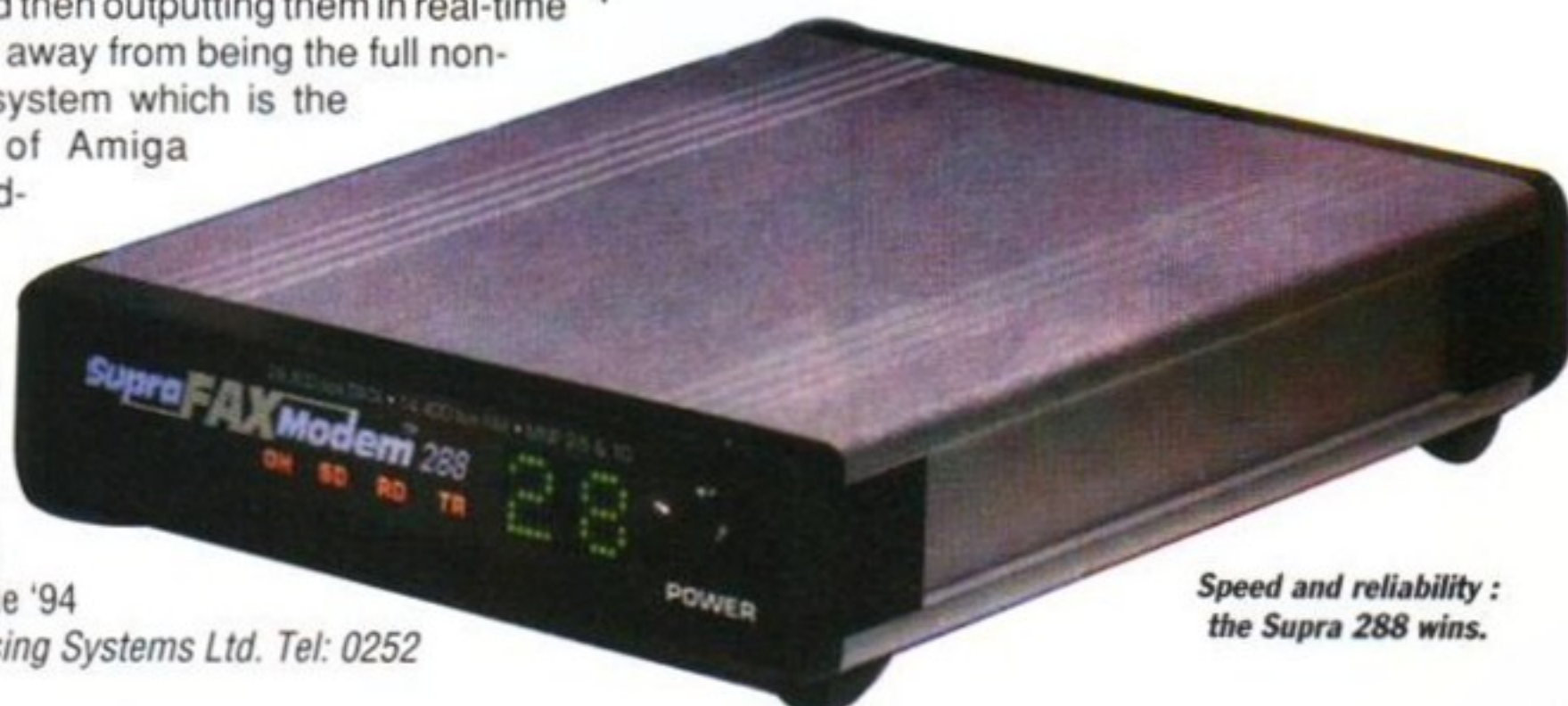
Apart from e-mail messages and textual information, there is also a lot of software out there available for the price of a phone call via modem from Bulletin Boards Systems.

For the Amiga, for example, the whole Fred Fish collection, plus thousands of other PD programs, images and music MODS. All you need to buy is a modem for your Amiga; excellent comms software like NComm 2 is freely distributed shareware (you pay if you like it).

Speed and reliability of data transfer are the main criteria for judging modems and the Supra 288 was the fastest, most efficient modem reviewed this year for the Amiga with a top transfer rate of over 28,000 bits per second. An essential key to a virtual world of data.

SupraModem 288, £244 : 94% in **AUI** December '94

Contact: First Computer Centre Tel: 0532 319444



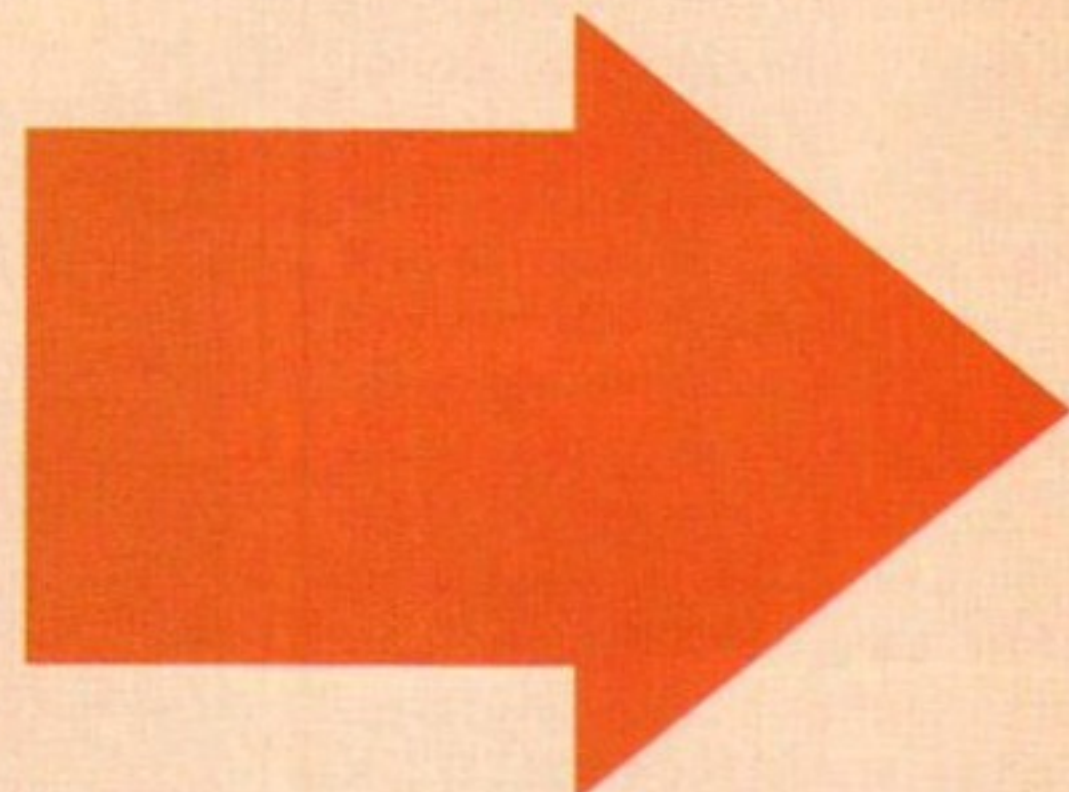
Speed and reliability : the Supra 288 wins.

# MULTIMEDIA

1994 was the year when for many people multimedia transformed from being an obscure nebulous concept bandied about by media visionaries into a fact of everyday life. The number of commercial CD-ROMs combining graphics, sound and video available for platforms like the CD32, PC, Apple and CD-i has rocketed. The MPEG VideoCD standard has established itself and in newsagents the computer magazine section is now festooned with shiny CD-ROM cover CDs where a year ago there was none.

1994 saw a full crop of consistently good multimedia authoring software for the Amiga. **AUI** reviewed Interplay (£999, 90%), Scala MM300 (£329, 94%), MediaPoint (£256, 85%), CanDo V2.51 (£99, 90%) and Helm (£90, 94%).

Overall top has to be Scala MM300, as the **AUI** reviewer put it: "For the professional who is always in search of new ways to harness the power of the Amiga, then I can say (with hand on heart) that MM300 is the best collective multimedia package on the Amiga, and probably on any other platform too." The others still have their





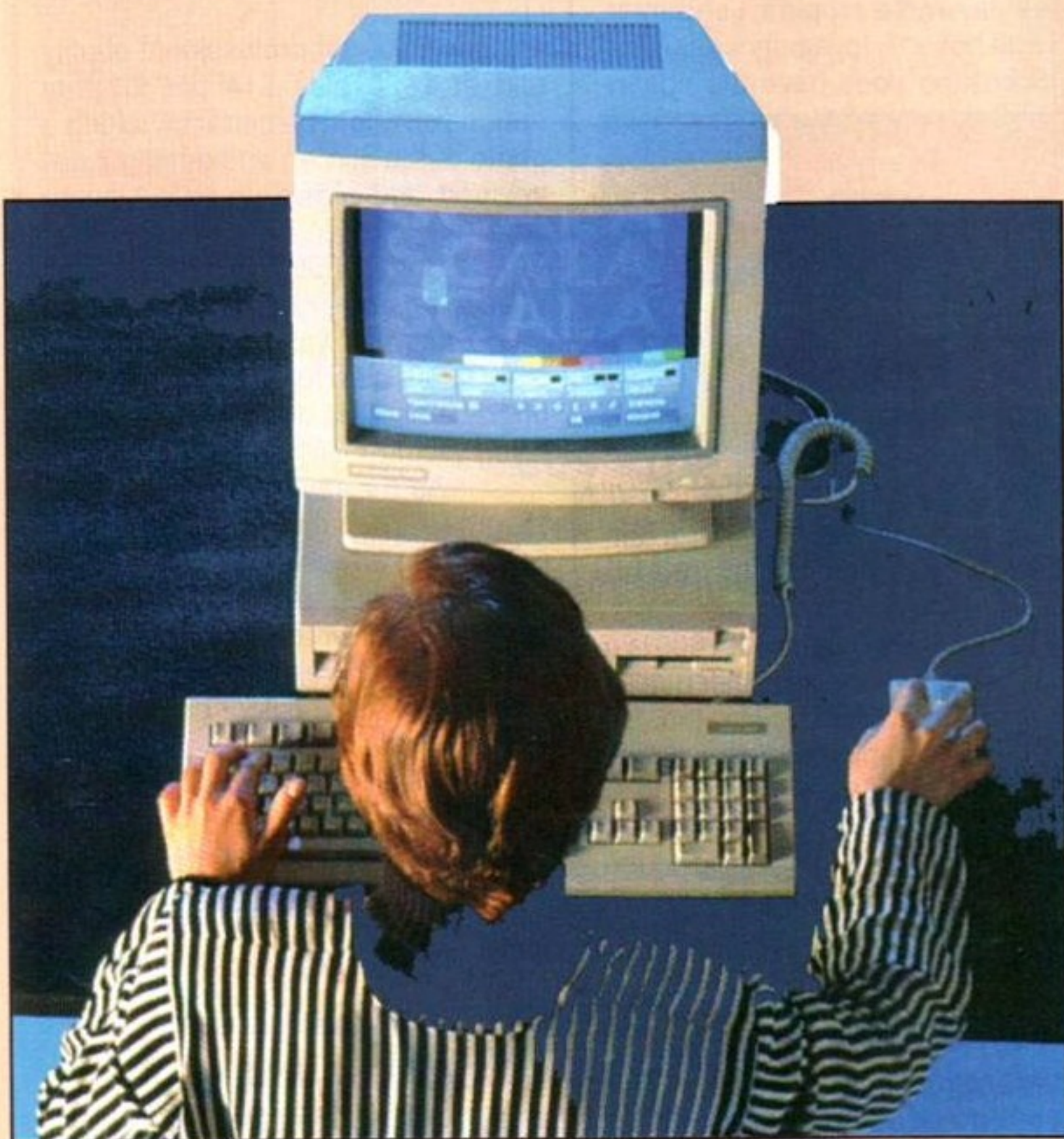
## MULTIMEDIA CONTINUED

particular strengths though. For instance for putting together CD32 CDs like the Amiga CD! we used Interplay for the first two coverCDs and CanDo for the third. CanDo is one of the best value for money, most flexible packages: "A fantastic tool for creating application software" as the test driver had it, though the learning curve for using it is steep. While Interplay though expensive is much easier to use: "If you do not have extensive programming skills and want to be able to compile CD titles with the minimum of

fuss and bother Interplay is just the ticket".

MediaPoint is probably Scala's most direct challenger, as the reviewer said, imagining choosing between them: "Both packages are expandable by software modules, both have a simple scripting language, both spool animation and sound from hard disk...Each package has features which the other is missing...Hmm, a tough one..You'll have to see which package fits closest to your bill."

Lastly for sheer value for money, Helm warrants a mention, the reviewer concluded: "At around £90 it represents incredible value for money and merits a "Best Buy" award."



### CONTACTS

Helm, about £90, 94% in **AUI** January '94,  
Contact: Meridian Tel: 081 543 3500

InterPlay, £995, 90% in **AUI** February '94,  
Contact: Optonica Ltd. Tel: 04555 558282

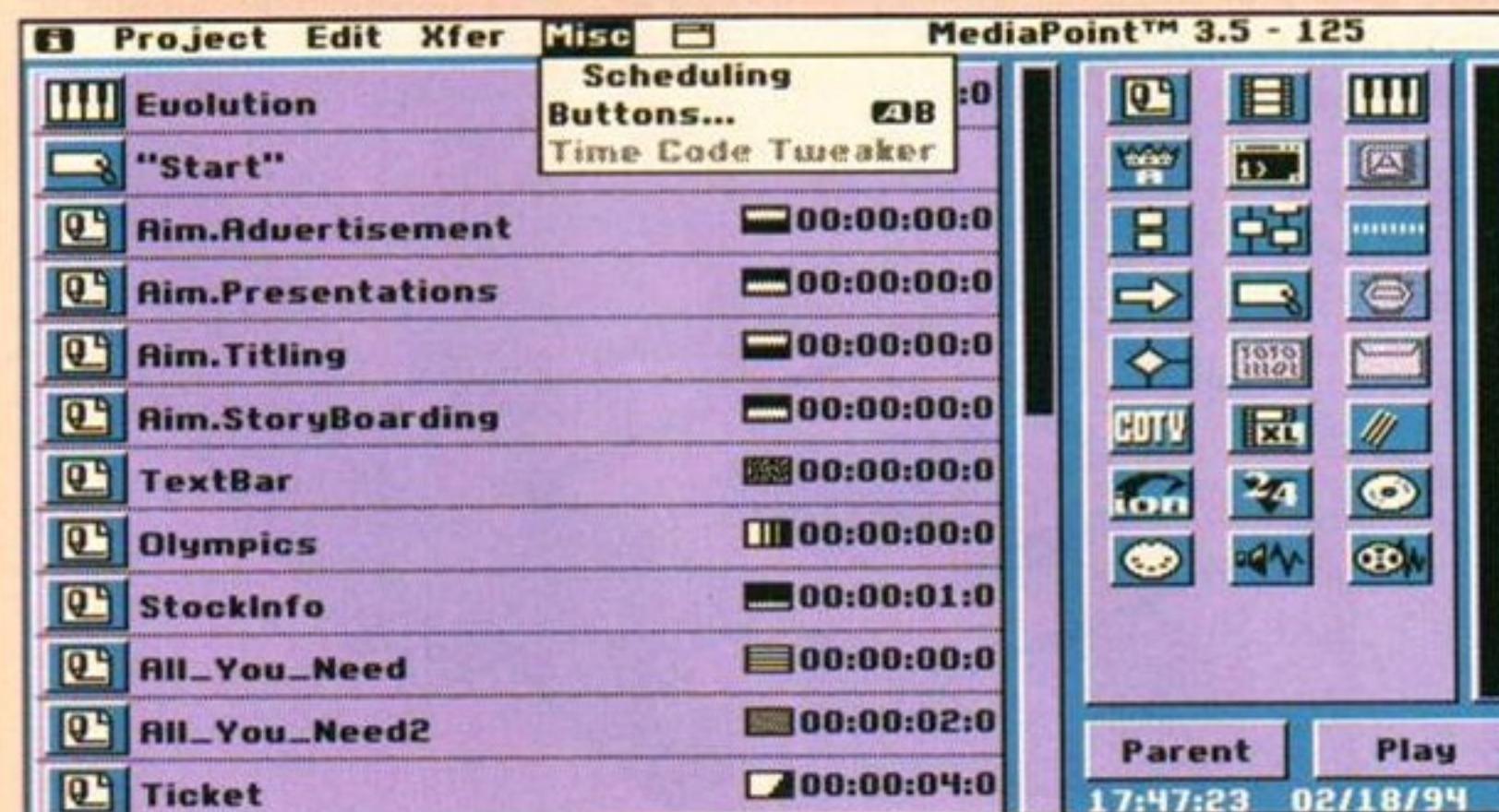
CanDo, £99, 90% in **AUI** February '94,  
Contact: HiQ Limited Tel: 081 909 3885

MediaPoint, £256, 85% in **AUI** May '94

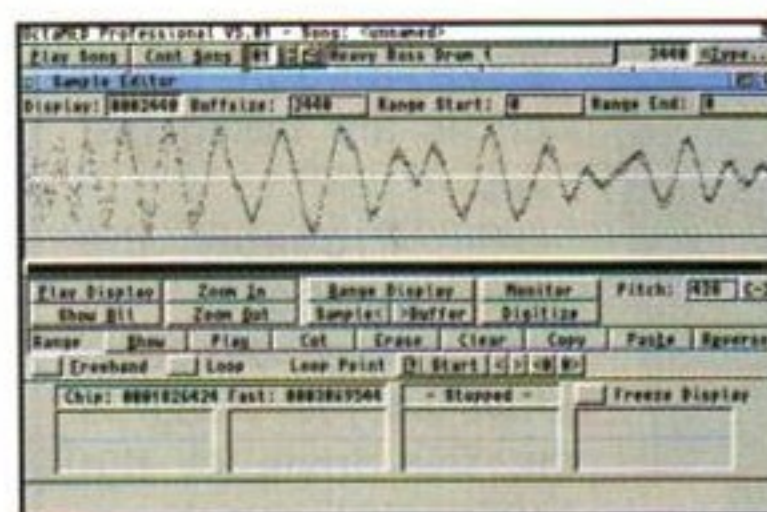
Contact: Activa International  
Tel: 0031 20 691 1914 (Holland)

Scala MM300, £329, 94% in **AUI** February '94,  
Contact: ScalaUK Tel: 0920 444 294

*Mediapoint is rocking Scala's throne.*



## MUSIC & SAMPLING



**OctaMed V5. The great budget Amiga music-making program which has been in the Top 40.**

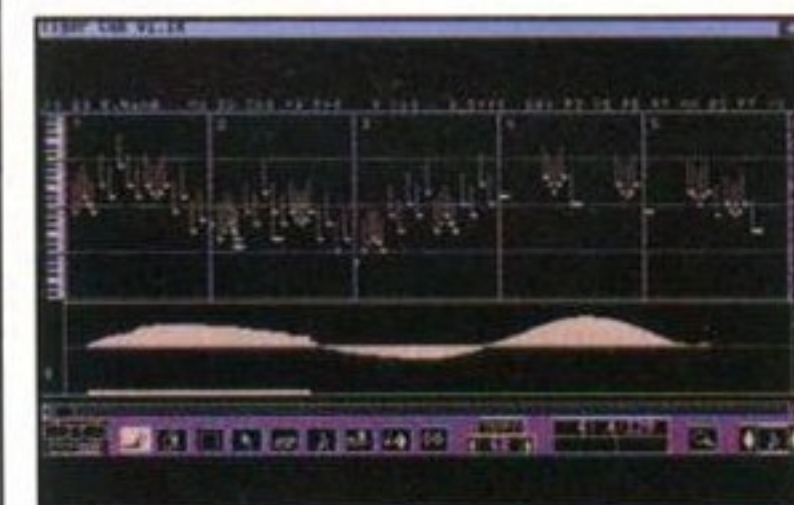
**T**hough released in 1993, the Sunrize Studio 516 16-bit sampler and sound editor and Bars and Pipes Pro 2 sequencing software continue to dominate the high, i.e. A2/3/4000, end of Amiga sampling and music and soundtrack creation. 1994 saw two more contenders enter the 16-bit sampling arena: the Toccata board at £370 in July's **AUI** and the WaveTools board at £300 in August's. WaveTools got the comparative thumbs down with only 75%, let down by the crudity of its sample editing software though this could easily change with the due release of an improved version. On the other hand Toccata scored a healthy 92% appointing it as one of the most attractive, marginally cheaper alternatives to the Sunrize board.

At the lower-end of the Amiga market, or consumer end as it's probably more nicely put, TigerCub is a straight-forward, entry-level music sequencer for £60 or free on the cover of May's **AUI**. It works on all Amigas and can sequence up to 12 Midi tracks to control any Midi synthesiser via a Midi converter if you have one, or if not it can use up to 16 standard IFF 8SVX format samples as instruments as well.

The only low-cost sampler reviewed in **AUI** last year was way back in January, when the £50 TechnoSound Turbo 2 8-bit sampler and editing software achieved an **AUI** rating of 89%. Entry level samplers for the Amiga all tend to offer fairly similar features these days but the Turbo II is particularly well-designed. Now you

can probably pick it up for a few pounds less than then.

The most significant release of 1994 for bedroom-big-band budget Amiga music maestros though was undoubtedly OctaMED Pro V5. The MED (Music Editor) program by Teijo Kinnunen from Finland was always one of the best public domain music-making programs. Adding features with each new version until with this latest version 5 it can play 8-tracks out of 64 simultaneously - hence the Octa of OctaMED - it also includes some advanced sample and synthesised sound editing features. It has also gone 'Pro', which means that it costs money now, about £30, looks and feels more pro-



**A budget introduction to Amiga sequencing.**

fessional and comes with a manual (for another £20). Though somehow along the way the program has lost the adjustable 'Guy' feature of V.1 which had your mouse pointer turn into a little man who did the pogo to your MED song. And there no longer seems to be the option of doing everything in Finnish, which used to add another dimension to music creation.

### CONTACTS

TechnoSound Turbo II, £50, 89% in **AUI** January '94

Contact: New Dimensions Tel: 0291 690933

OctaMed Pro V5, £30 plus £20 for the companion manual, 88% in **AUI** March-April '94  
Contact: SeaSoft Computing Tel: 0903 850378

TigerCub, £60, 90% in **AUI** May '94  
Contact: Key Audio Systems Tel: 0245 344001

Toccata Board £370, 92% in **AUI** July '94  
Contact: HiQ Ltd, Tel: 081 909 3885

WaveTools 300, £300, 78% in **AUI** Sept. '94  
Contact: BlitterSoft Tel: 0908 220 196

## DATA STORAGE

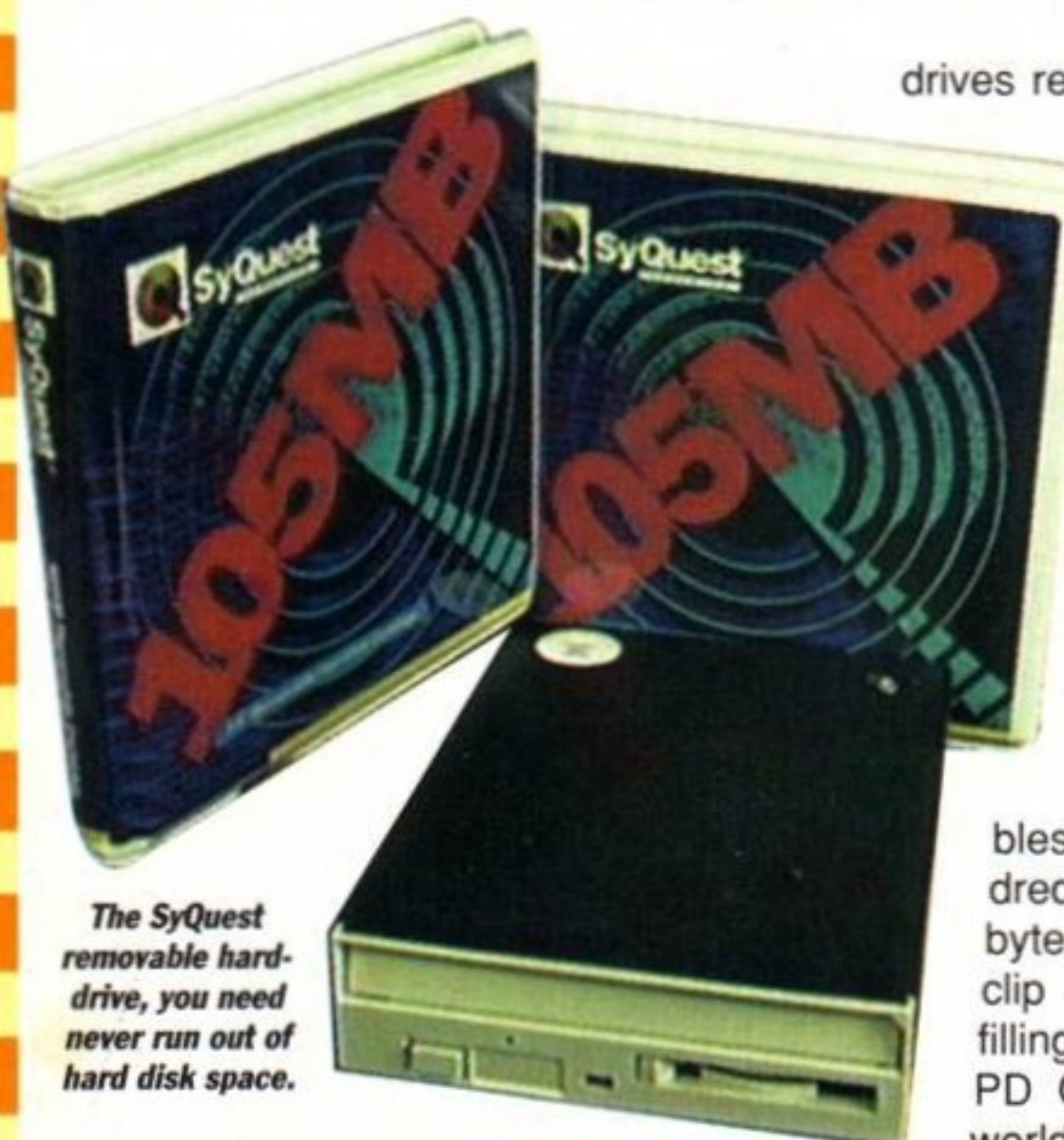
Last year saw a plethora of new data storage options reviewed in **AUI**. From new CD drives for the A1200 to removable SyQuest cartridges and a magneto-optical drive; as well as several good old-fashioned hard drives, faster and cheaper than ever.

The **AUI** test driver fell in love with the Fujitsu M2511A magneto-optical drive virtually at first sight. They were french SCSI-ing almost immediately on their first data, and he went on to insert and remove his 128Mb magneto-optical

disk several times before declaring that this was one of the most gratifying data storage devices ever for someone like him whose interests include DTP, 3D, animation and multi-media.

The MO drive is almost as fast





The SyQuest removable hard drive, you need never run out of hard disk space.

as a hard drive and though it's expensive at £650, the 128Mb MO disks themselves are only about £35 a go, so the more you use the better value it gets.

Another removable storage media possibility reviewed was the SyQuest removable hard drive. The drive takes 3 1/2 inch cartridges which can hold upto 105Mb each. At about £250 the main drive is cheaper than a magneto-optical but the cartridges cost more at about £80 each, which works out at better value depends on your needs.

As the reviewer wrote: "Overall, this little SyQuest beauty would make anyone a wonderful secondary hard disk, especially if you find the magneto-optical option too expensive. And it's easy to carry around too."

As far as no-nonsense hard drive capacity goes, the HiQ IDE drive reviewed in November's issue offers 420Mb on a Connor 3.5 inch internally fitted hard disk, for only £240 - a bargain. Now it's even lower in price at £199.

Another option is one of the new hard drives which fit into the PCMCIA slot on the A1200 or 600. The Overdrive and SmartStor Plus

The lovely Fujitsu magneto-optical drive.



drives reviewed come in several sizes from 170Mb up to 420Mb. A 340Mb SmartStor Plus costs £345 while a similar sized OverDrive costs £329 though these prices are falling fast too.

Probably the most significant new data storage device to arrive last year though is the CD drive for the A1200, which at last enables users to access the hundreds of thousands of megabytes of juicy utilities, images, clip art, music etc. currently filling up both commercial and PD CDs around the Amiga world.

Commodore's own CD1200 drive is the best-looking of the bunch - a gleaming white plastic box with a smoked glass lid like some toasted sandwich maker out of Space 1999; as yet still a bit thin on the ground though given Commodore's (I must stop saying that word) or Amiga International's current production line hiccups.

The very satisfactory alternative was the Zappo CD-ROM drive from Indi which plugs into the PCMCIA slot. For under £200 it's here and it works. Incidentally for A2/3/4000 owners in July's issue Andy Eskelson introduced Brian Fowler's ingenious set-up to use a standard Mitsumi PC CD-ROM drive with an Amiga; easy access to those treasure chests of software buried on CD for under £200.

Fujitsu magneto-optical drive, £650, 90% in **AUI** February '94

Contact: C&T Tel: 071 637 3538

SyQuest SQ3105 removable hard drive, £250 plus £80 per 105 Mb cartridge, 89% in **AUI** March-April '94

Contact: most PC hardware dealers

Mitsumi CD-ROM drive, £200 (single-speed), £300 (double-speed), 93% in **AUI** July '94  
Contact: Brian Fowler Computers  
Tel: 0392 499755

SmartStor plus PCMCIA hard drive, £345 for 340Mb, 90% in **AUI** October '94

Contact: Indi  
Tel: 0543 419999

Zappo PCMCIA CD-ROM drive, £200, 88% in **AUI** October '94  
Contact: Indi Tel: 0543 419999

HiQ IDE hard drive, £199, 85% in **AUI** November '94  
Contact: HiQ Ltd.  
Tel: 081 909 3885

OverDrive PCMCIA hard drive, £329 for 340Mb, 87% in **AUI** November '94  
Contact: Silica  
Tel: 081 309 1111

## PRINTERS

A big range of printers came under **AUI**'s scrutiny this year. Among the best printers reviewed and rated over the year were the Epson Stylus 800, the Canon BubbleJet 600, the Fargo Primera, the Citizen ABC and the Samsung SP2147.

In the field of colour 24-pin dot-matrix printers both the Citizen ABC and the Samsung SP proved excellent. Cheap, easy-to-use, high-quality for the price. It's amazing that a few years ago desktop or home colour printing of this quality would have been inconceivable for under £1000 and now it can be done for around £150.

The ABC probably has the edge if you want a simple to use printer, and who doesn't, for sanity's sake, but the Samsung does have the advan-



The Citizen ABC, easy colour dot-matrix printing.

are good but not professional quality and at £460 plus £14 per 24-print ribbon you might be better off taking a photo of the screen and getting it developed and blown up to A4 every time.

Better quality for a higher price still can be achieved with the Primera Fargo thermal wax printer, at £800, plus £200 odd for a photo-realistic upgrade kit. This does produce some lovely pictures.

As the reviewer wrote: "With the growing popularity of colour photocopying we are used to easily accessible colour but such reproduction is far inferior to what the Primera can produce which is almost indistinguishable from A4 size colour prints."

BubbleJet 600, £575, 90% in **AUI** Feb. '94  
Contact: First Computer Centre  
Tel: 0532 319 057

Fargo Primera, £800, 90% in **AUI** Feb. '94  
Contact: Fargo Inc. Tel. 612 941 9470 (USA)

ABC, £150, 95% in **AUI** March-April '94  
Contact: Silica Systems Tel: 081 309 1111

Samsung SP2417, £159 plus £16 colour kit, 90% in **AUI** October '94  
Contact: Samsung Electronics Ltd.  
Tel: 081 391 0168

tage of being serenely quiet for a dot-matrix, another mental health preservation plus.

The Canon BubbleJet 600 is a colour inkjet printer - smoother quality than a dot-matrix and quieter too. It's slow, up to 45 minutes for a single page, but the fuller, less dotty look than a dot-matrix image can warrant this. Colour inkjets like this produce clear image, are reasonably quiet and are simple to use with no fiddling around with ribbons or wax transfers. But at nearly £600 a dot-matrix gives better value and a thermal wax printer gives better quality.

For really fine colour printing a colour thermal wax printer is required, unless you can afford a colour laser printer in which case you are probably already too busy churning out photorealistic copies of all your favourite images to be reading this. The Star SJ-144 claims to be give colour laser quality for the price of a thermal printer, a strong claim and hard to disprove conclusively. The images



Shhh! The Samsung is printing out a flower.



The Primera Fargo: pleasing quality at a price.



# BUS STOP PD

UTILITIES	GAMES	SLIDES	MUSIC
CATALOGUE WORKSHOP (2)	GALAXY BLAST	CRY FOR DAWN	PET SHOP BOYS
ICON DESIGNER	O BIC	THE PRISONER	JESUS ON E's (2)
GRAPHICS RIPPER	SEVEN TILES	WATERSHIP DOWN	DOOP
ELECTROCAD	DELUXE PACMAN	DRACULA	LAWNMOWER DETH (2)
EMULATORS	BATTLE CARB 2	SHARON STONE	MERCILESS
SID V2.0	QUIZMASTER	YABBA DABBA	NAPALM DEATH
TOOLS 3	TOMCAT	GIRLS OF SPORT	K.D. LANG
MED 3.2	ATOM BASHER	PAULINA	MY WORLD
OPTICOMMS	CATACOMB	MOVIE STARS	MISERY
LITTLE OFFICE	CARD GAMES	ROBIN HOOD	SIMPLE MINDS
BUTCHER	TETREN	CHER	SWEET CHILD
CARTOON BRUSHES	GHOSTSHIP	FERRARI	JACK DEE
PS FONTS (10)	POD	MOTORBIKERS (2)	THE UNFORGIVEN (5)
TYPE 1 FONTS (5)	TENNIS	AIRCRAFT	LSD STORY (5)
D LOCK	STRIKE 10 PIN	MAGNA MANIACS	9 FINGERS (2)
RIM DATABASE	POOL	TRUE BLUE (2)	DREAM TRIPPING
DISNEY CLIPS	OLYMPIAD (2)	GARFIELD (2)	CLASSIC MUSIC (2)
PRO DEMO CREATOR	OBLIVION	DEEP SPACE 9	I LIFT MY CUP
D COPY V3.1	SLAMBALL	IRON MAIDEN (4)	THE PROCLAIMERS
D PAINT FONTS (10)	ARTILLERUS	WENDY JAMES	AMSON IQ
MINIMORPH	SERENE	JIMI HENDRIX (2)	FAIRLIGHT 242
VISCALC	ESCAPE	CORN CIRCLES	TOTALLY TEKNO
CRUNCH & COPY	NEIGHBOURS (2)		
ST. MODS (10)	SKYFLYER		
JC GRAPH	TOTAL WAR		
MAGNUM V1.8	CRAVE		
DISK OPTIMISER	WREX		
QUALITY CLIPS (5)	BACKGAMMON		
OCTAMED MODS (5)	SEA HEIST		
AMIGA E	MICROMARKET		
SPECTRUM EMULATOR V17	MR MEN OLYMPICS (2)		
SPECTRUM GAMES (8)	BILLY BURGLAR		
BEGINNERS BENCH	SUPER PRIX		
NO ERRORS	IRON CLADS (2)		
ABC UTILITIES	SQUIDS		
1200 FIX DISK	CASHFRUIT		
AMICHECK	DOMINOES		
NCOMM V3.0	SORRY		
PRINT A CARD	SCORCHED TANKS		
SLIDE SHOW MAKER	STEWARDS ENQUIRY		
MAVERICK V5.0	SOLAR LORDS		
PAINT & ANIMATE	V CHESS		
SPECTRAPAINT	ORK ATTACK		
LYAPUNOU AGA	SON OF BLAGGER		
TYPING TUTOR	TANK N STUFF		
DCA COPY	SWORD OF WARLOCK (3)		
BIT MAP FONTS (5)	SLIME		
MUSIC RIPPERS	GOBBLERS		
SKICK	100 GAMES (7)		

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## Pro-Punter "The Best (Racing Software)... Available"

**"DAMNABLY GOOD" Amiga Format (Apr '93)**  
**"KING OF THE COMPUTERS" S.Life/Weekender (Nov '93)**

Now in its seventh successful year, the PRO-PUNTER software will turn your PC into a year round expert racing advisor. With a long history of excellent forecasting performance, users are looking forward to another brilliant flat season. Superb flat results in 1993.

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- Written to highly professional standards
- Attractive and easy to use
- Full editor screens with continuous edit/review facility
- Race Selector puts you on the most profitable races
- Unique low maintenance database keeps records for horses in today's race for next time they race
- Does not require daily maintenance or costly updates
- Expert analysis module generates highly accurate race forecasts and ratings
- Generates its own odds, assesses 'value' and advises which horses to back
- Optional 'form on disk' service available to reduce keyboard data entry (IBM only)
- Seven years of excellent press reviews and plaudits including profitable trials by 'Racing Post' and 'Sporting Life'
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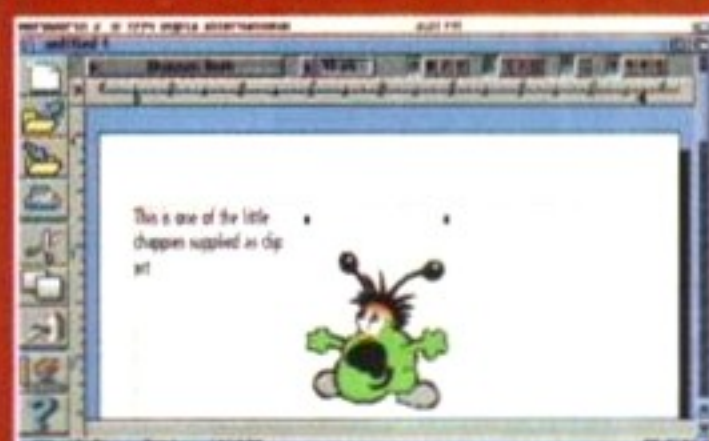
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## WORD PROCESSING & DTP

Final Writer, a new top-of-the-range word-processor reviewed in January, is typical of the new breed of hybrid word-processor/DTP packages. The program lets you use imported fonts, draw boxes and ovals, construct style sheets, import and manipulate colour graphics images and output documents to a range of printers. Though perhaps not quite as comprehensive or user-friendly as something like the (several times more expensive) Word program for the PC or Mac for example, at £130 Final Writer is nevertheless a great word-processor-cum-DTP package, one of the best available on the Amiga.

WordWorth 3.0 is another fine word-processor with DTP pretensions. The last year saw two upgrades reviewed which cleaned up a few lingering bugs and turned it into a polished



The wonderful Wordsworth word-processor.

worthy rival to Final Writer. The WordsWorth II AGA version due out in the next month or two should be even better.

One of the first and among the best and most famous dedicated DTP programs for the Amiga is PageStream and in December AUI looked at the latest 3.0b update. Still not quite fully gestated, the update is more of a taste of what PageStream will be like when the fully fledged upgraded version comes out, but it looks promising. Full graphics file importing features and a wide range of supported fonts bring PageStream back abreast of the competition. We can look forward to the package proper in the next few months.



ProText 6.5

Final Writer, £130, 88% in AUI February '94  
Contact: SoftWood, Tel: 0773 836 781

WordWorth 3, £150, 86% in AUI June '94  
Contact: Digita Ltd. Tel: 0395 270273

## GRAPHICS & VIDEO

The Amiga has now evolved into a serious commercial 3D animation, video-processing and multimedia machine. However it's also a great games machine and quite cheap, which means that a lot of people, not least many users, still simply fail to see the serious side of the Amiga.

1994 did see some very serious high-end graphics and video tools brought out for the Amiga like the PAR board and LightWave (see Six of the Best), probably only affordable by commercial Amiga users. But there were also some very powerful relatively low-price packages like the Vidi-Amiga RT, ProGrab and Personal Paint 6 well within many home users grasp.

One knockout package for instance was the Vidi-Amiga RT: everything the excellent Vidi-Amiga had plus now it can grab 24-bit colour images from video in real-time. The only real contender came in December's issue with ProGrab, another high quality real-time 24-bit frame-grabber from video, marginally cheaper than the Vidi-Amiga but not quite so polished, at £139 a budget bargain though.

The pair of high-end Epson scanners, the GT-6500 and GT-9000 caused hours of wanton scanning at AUI, cooing and ah-ing at the pretty pictures being revealed on screen. Brilliant quality 24-bit or even 30-bit images in the case of the GT-9000, though your wallet might feel a bit sore after buying one for nearly £1200.

In 1994 there were some great graphics utilities programs reviewed, too. Playing with Adorage is more fun than a lot of games. Taking IFF images and animating them, stretching them, spinning them, peeling them etc. As the reviewer wrote: "It's this kind of magical stuff that makes you realise that only the Amiga makes it possible!"

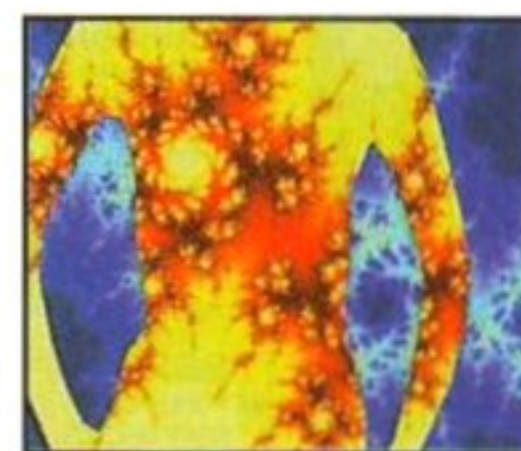
AdPro's latest version 2.5 of the excellent image-manipulation program added some worthy new features to an established great. "AdPro isn't for the casual user - price prohibits this - but for the semi-pro upwards the program is indispensable. It's good

to see one of the Amiga's best products developing nicely. Not Amiga Photo-shop quite but on the way."

Tucked away in the January issue was AccuTrans 3D - a humble and cheap but for certain users a potentially very useful utility program indeed which will convert 3D objects and images created in most Amiga 3D modelling programs into standard ASCII DXF format so they can be easily ported into other programs on other platforms; and the PC, Amiga and Apple Mac can live in harmony.

Another small but very useful JPEG conversion program to be reviewed was Pegger, which compresses and decompresses JPEG files very efficiently. Very useful if you work with big images frequently.

A new version of the Imagine 3-D ani-



One of those swirling Video Creator images.

the release of the PAL version of the LightWave 3-D animation program (see AUI's Six of the Best of '94).

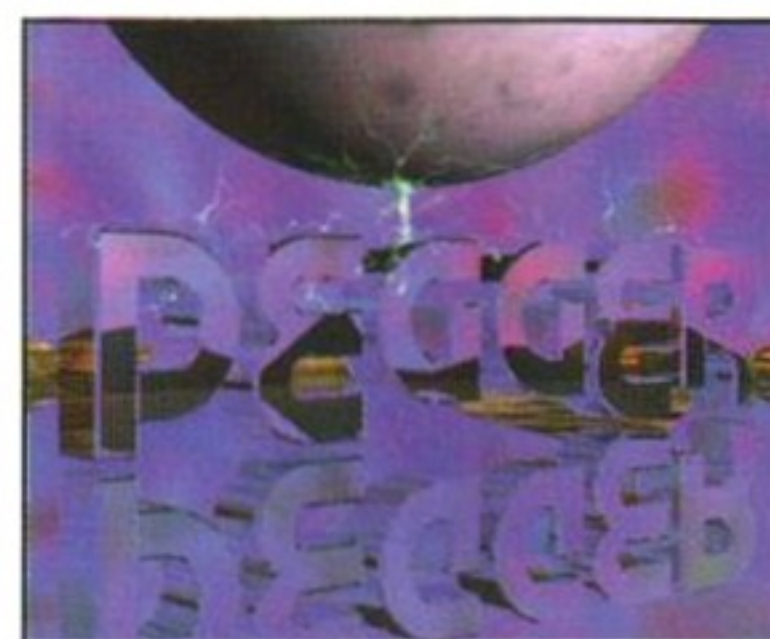
Two excellent paint packages were reviewed this year: Brilliance and Personal Paint 6. Brilliance is brilliant. The test driver

wrote: "Brilliance is still the number one paint and animation package for the Amiga which leaves many other packages and computers positively in the dark." Even PPaint 6 reviewed in December, with its excellent animation, dithering and palette mapping features didn't change his mind, though it did score 90%.

Lastly and most there is the Raptor, a monstrous RISC-based rendering engine which brings even an accelerated Amiga 4000/040 out in a cold sweat when it is sat too close. Raptor only works with LightWave, though Real 3D compatibility is in the pipeline, and it costs £15,000, so it's not really a consumer machine to put it mildly. But it does do the stuff. And if you've got the money and you need to do the stuff, then this is for you.



RISC-based super-charged rendering engine The Raptor.



Pegger is a nifty jpeg utility.

mation program - version 3.0 - came out but the reviewer was a bit disappointed with the lack of pace at which it was developing and only gave it 78%. Besides it was completely dwarfed this year by



AdPro 2.5, the latest version of an old stalwart.



LightWave



PAR

Adorage V2, £80, 85% in AUI March-April '94  
Contact: Burgess Video Group Tel: 0874 611633

AdPro 2.5, £146, 91% in AUI June 1994  
Contact: First Computer Centre Tel: 0532 319444

AccuTrans 3D, about £40, 90% in AUI January '94  
Contact: MicroMouse  
Tel: 306 522 6077 (USA)

VidiAmiga RT, £199 (12-bit) £299 (24-bit), 98% in AUI February 94  
Contact: Rombo  
Tel: 0506 414631



Adorage can create some mind-blowing effects



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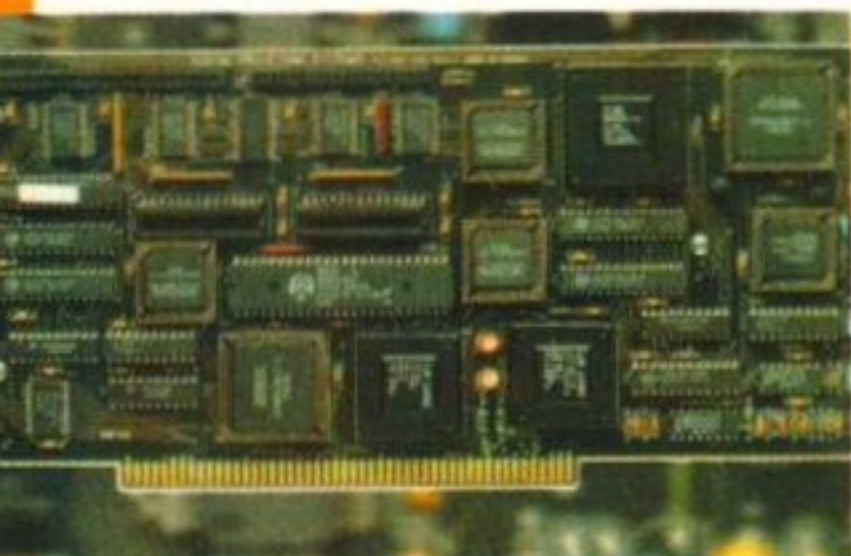


The ABC is also available from Alders, Argos, Best Buys, Cargo Club, Centrex, Costco, Fona, John Lewis Partnership, Office World, PC World, Rumbelows, Silica, Tandy.

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## G \* A \* M \* E \* S



The PAR direct-to-and-from-hard disk video and animation recorder. An AUI '94 winner.

Imagine 3.0, £525, 78% in **AUI** September  
Contact: Emerald Creative Technology  
Tel: 081 715 8866

Brilliance 2, £90 or less, 94% in **AUI** September  
Contact: Emerald Creative Technology  
Tel: 081 715 8866

Pegger, £60, 90% in **AUI** May  
Contact: Ramiga Ltd Tel: 0690 770304

Personal Paint 6.1, £60, 90% in December's **AUI**  
Contact: Ramiga Ltd. Tel: 0690 770304

Raptor, £15,000, 91% in December's **AUI**  
Contact Ramiga Ltd. Tel: 0690 770 304



The GT6500 24-bit scanner.

The Amiga continues to reign as a games machine and last year saw another fine harvest of games. No real Tetris-style concept leaps out, but graphics quality, smoothness of movement and infectious playability have all been honed.

For a traditional platform game, Zool 2 leapt off from where Zool stopped and somersaulted up onto the podium to pick up the best-platform-game-reviewed-in-**AUI** power-trophy (you never know when it might come in handy). As the reviewer wrote: "This game is going straight to the top of my platform game collection, at least until I complete it." Aladdin was another '94 great, inspired by the film it has retina-tinglingly good graphics and some lovingly created, pointless but fun interludes.

As far as on-screen death goes, Cannon Fodder takes the golden **AUI** biscuit. In this game you take a crack squadron of trained killers and go on to kill as many enemy as possible, in a variety of picturesque settings like the desert, the arctic, the jungle etc., with a range of weapons. On screen killing couldn't be easier, with simple mouse clicks to direct and fire your guns, missiles and grenades. Excellent, and filled with sick and absurd touches, like the woolly-capped snowmen in the Arctic, which keeps it fun. If you like 'God' games 'The Settlers' is probably the best one ever on



Zool was back for more in '94.

the Amiga. In it you run a small mediaeval village, which you build from scratch and then try to defend and expand. Some 64,000 little people's fates are in your hands as you can control everything from where to cut

the wood or quarry the rock to build a castle to how big a windmill you need to mill the local corn. Well thought-out design makes playing easy, there are optional depths of involvement and the graphics make it a pleasure to watch the town's history unfold. As the reviewer put it: "Flawless. A true masterpiece."

With the '94 World Cup came a wave of football simulation games. The best one reviewed was 'On the Ball', a team management simulation, where you have to pick, train and play your team to the F.A. cup final. Amazing detail, superbly realistic graphics sequences and atmospheric effects make it a winner. "kicks everything else into touch. Believe it!", as the reviewer wrote.

Finally for space-colonisation



Cannon Fodder: dark but fun.



K240: It's MY asteroid.

## COMMS



lull before the storm.

What there was was good though. Just the two modems, the US Robotics Sportster in September and the SupraModem 288 last month. Both top-notch products, though the SupraModem scored

with 94% and is worth the extra £50 or so for its 28,800 bps top transfer rate, twice the Sportster's.

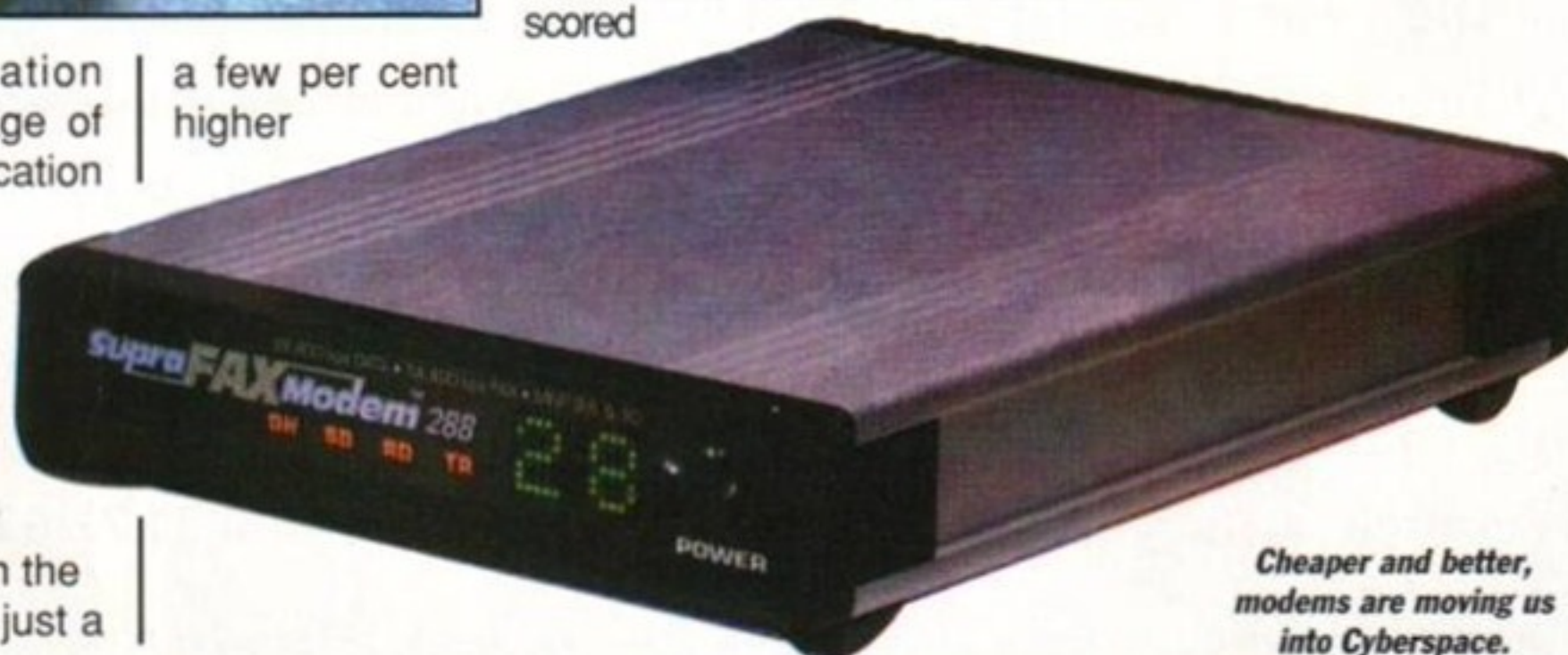
If CDs were 1994's toy then modems and comms could well be 1995's. With Christmas coming up now's the time to start whining on to your friends and family about how you've always wanted one.

US Robotics Sportster II, £199 or less, 91% in **AUI** September '94  
Contact: US Robotics Ltd.  
Tel: 0753 811180

SupraModem 288, £243, 94% in **AUI** December '94  
Contact: First Computer Centre  
Tel: 0532 319444

Internet this, information superhighway that, new age of universal digital communication the other, you can't seem to get away from it these days. Given all the hype, it was surprising how little new comms hardware and software came past the reviewers along the conveyor belt through **AUI**'s offices in the last 12 months. Maybe it's just a

a few per cent higher



Cheaper and better, modems are moving us into Cyberspace.

fans K240 is a very engrossing vent for your interstellar imperial ambitions. Find and build up an asteroid, whilst trying to make enough money to survive and buy weapons to attack alien interlopers. The reviewer wrote "a great game."



A historically wide spectrum of games.

Zool 2 (Gremlin), £25.99, 90% in **AUI** February '94

Aladdin (Virgin), £24.99, 94% in **AUI** December '94

Cannon Fodder (Virgin/Sensible), £29.99, 93% in **AUI** March/April '94

The Settlers (Blue Byte), £34.95, 97% in **AUI** February '94

On the Ball (Daze/Ascon), £29.99, 94% in **AUI** October '94

K240 (Gremlin), £29.99, 93% in **AUI** August '94



# PROGRAMMING

Programmers are often seen as a different breed by people who wash regularly and wake during the day, which is unfortunate, because in fact they are just humans like everybody else (well, humanoid, at least). But really it's unfortunate that so many people

are daunted by programming because it's one of the easiest ways to enter the inner sanctum of your computer and grasp the golden sceptre which lets you wield the full power of your machine. It can also be surprisingly easy to get started.

1994 was a vintage year for programming packages reviewed in **AUI**. For newcomers to programming there was AmigaComal and HiSoft BASIC 2. Several similarities make COMAL a good language to warm up on before going on to C programming while still being easy to use.

BASIC on the other hand is the classic beginner's programming language and there are several very good versions around. **AUI** reviewed HiSoft BASIC 2 in September. As the reviewer put it: "The new HiSoft Basic 2 package is great and a big improvement over what was already an excellent Basic".

For users who already use the AMOS Basic package there was the AMOS Liberator, a new package consisting of a library of over 1300 new

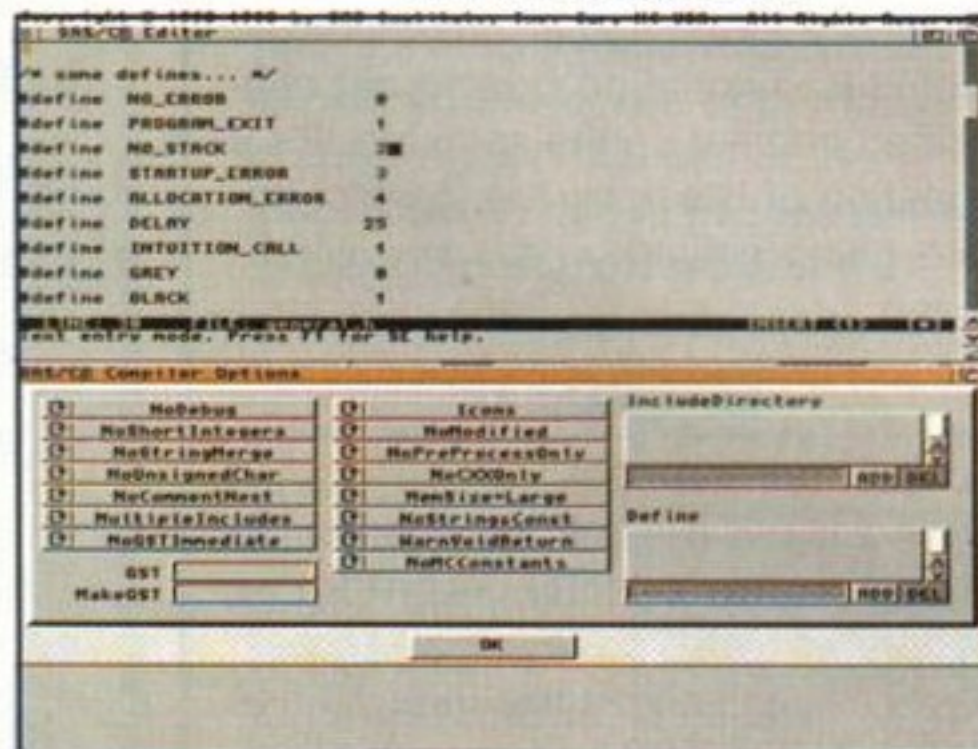
function calls, which are the pre-fab slabs from which new programs can be constructed.

Finally, for professional level programmers who prefer to use the faster lower-level C programming language, or the more 'object-oriented' C++, there was the release of the SAS C/C++ program development system. SAS C is what many of the commercial Amiga developers write their software in and C++ support is an additional, welcome feature. In the test driver's words: "I kid you not, this package for the serious C/C++ programmer is the business...Competition? Forget it. There isn't any now. If you are seriously interested in

learning about and using C and/or C++ on the Amiga then this latest version is an absolute must!".

The tools are all out there then for programming on the Amiga. It's a

**THE professional programming tool on the Amiga: SAS C/C++**



good time to give it a try. Go on, it's not as difficult as it sounds and it can be quite fun sometimes. You might even reach the dizzy heights of the pages of **AUI**'s PD Stakeout, if not a commercial package review.

HiSoft Basic 2, £80, 94%  
in **AUI** September '94  
Contact: HiSoft Tel: 0525 718181

Amiga COMAL V2.10, £74, 90%  
in **AUI** July '94  
Contact: MacharSoft Tel: 0671 403441

AMOS Liberator, £22, 82%  
in **AUI** October '94  
Contact: T-Soft, POBOX 598, Ayr, KAG 6PJ

SAS C/C++ development system, £329  
(£250 for students), 97% in **AUI** June '94  
Contact: HiSoft Ltd. Tel: 081 909 3885

## CD32

Apart from all the new hardware like FMV and the SX-1 there was also some great new software for the CD32. Even without mentioning the 3 quite superb AmigaCD! coverCDs and leaving games alone for the moment, the Video Creator CD, for instance, from Almathera has to be one of the best most innovative products on any CD ever. You can now plug in your hi-fi to your CD32 and it will create your own synchronised videos. You can also add your own images if you like.

The test driver said: "Video Creator is a very special program be-

cause it takes the CD32 into a new realm and a few nightclubs too I imagine!..So take a break from games and check out this outstanding CD32 product now!".



FMV cartridge



ParaVision's SX-1 module

Video Creator, £40, 92% in **AUI** August '94  
Contact: Almathera Tel: 081 687 0040



## Jalopy

Probably the wierdest piece of hardware in **AUI** this year was the AirLink remote control unit which lets your Amiga control an infra-red remote control unit. You can program it to change channels on your telly for you, for instance. So for those times when you are feeling simply too lazy and tired to twitch your thumb and press the button on the remote control, you can program your Amiga to do it for you. You can conceivably even program it to change the TV to the right channel you want to watch at the right time for a whole evening. As the reviewer put it: "AirLink is certainly a very interesting product".

AirLink, about £60, 78% in **AUI** February '94  
Contact: Geodesic Designs Tel. 404 822 0566 (USA)

## Roll on 1995

So that's it. The best of times ..and the worst of times. It was a year that showed just how sensational a technological device the Amiga can be. It was also a year that put the very survival of the Amiga in unpleasant doubt. We may look back on 1994, especially if the new Amiga International really manages to take off, as the year that began a new era in the history of our beloved machine. We may, however, look back and see it as the year that led to the end of the Amiga era. Let's hope that the best of 1994, which was very good indeed, marks a year that is an exciting beginning for the Amiga not a depressing end.



**F**or a lot of computer users the term "comms" is still thought of as a black art limited to anoraks tucked away in a badly lit room. It used to be the least popular part of any computer magazine. This is no longer true and everyone can take the opportunity to explore an incredible and diverse world of computer contact.

## The Internet

A good starting point is to consider the Internet. 1994 was the year when the BBC, MTV, the British Government, and other large dinosaurian organisations went public on-line and enabled you to contact them directly using your home computer. Among thousands of other individuals and groups too of course.

The Internet is the new media buzzword for TV programmes and publishers to play with, a new bandwagon to jump on and exploit. But hang on! The Internet may be many things but it's certainly not new, far from it!

Originally set up in the late 60's by the US military, it allowed them to join their computers together into a giant network spanning the globe. Having many nodes (connection points in a matrix) meant that if one machine in the network went down (broke, got blown up or away), any data traveling on the Internet would find an alternative route to reach its intended destination. It was based on the idea of a nuclear conflagration knocking out the centre but not all those outlying nodes.

To start with there were just a few host computers. These have now grown to well over 2 million! Although there are no accurate figures, it seems there are from 10 to 50 million people using the Internet each day. A recent estimate reckoned the Internet was growing at a rate of 10% a month! But what is the Internet and how does it work?

The first thing to realise is that nobody actually owns the Internet. It's made up of millions of host computers scattered around the world linked together in a network. Most of the host computers are at colleges and universities. Because of the nature the network, any computer that's part of the Internet can communicate with other computers in the network, no matter how far away the computers are. Some computer sites are strictly out of bounds, like military and government sites which provide very limited or inaccessible access, while others are there simply to serve universities, businesses, and the public providing information and files in many different forms.

Once you join the Internet your machine becomes part of it. That

means you can allow other people in the world to access your Amiga just as you would access other machines in the network. It may be a difficult concept to understand at first but we should shed some light on this subject and help get you on-line and using the Internet for yourself.

## What Does It Do?

There are many different ways to use the Internet, some of which are listed below. If you have a direct Internet connection you can use all of these features simultaneously! What we aim to do throughout this column is to provide a tutorial on how to get connected and set up the software. It's a question of breaking the ice first before going fishing, if you see what I mean.

**E-mail**

Forget writing a letter and popping it in the post, using electronic mail is the fastest way to send information to other people who also have e-mail access. Nearly everyone on the Internet has their own personal address which ensures your mail get delivered to their



**Using the Internet:** You can receive mail telling you about the latest Amiga software which is obtainable through the Internet.

## INTERESTING PLACES

Once you're connected to the Internet, the world is your oyster.

You can, with ease, visit vast archives of interactive databases, pictures, software, and gather the latest news and information.

Fancy a Pizza? Well log on to the Pizza Hut site and place an order for free home delivery! The snag is that you can only order if you're in America. The UK hasn't yet caught onto that idea, but it will, soon.

Any scientists out there? Well, there are gigabytes of data on the 'net for you and others with broad and focused interests. There are also regular interactive

# ON Line

**Adding a modem to your computer system gives you access to a planet's worth of resources. Gary Fenton goes on-line for this new column on what's going on in cyberspace.**

doorstep, so to speak. It's a good way to keep in touch with friends at University (most Unis are on the Internet), or to contact companies, or join mailing lists.

## World Wide Web

Also called WWW or W3. This is a reasonably new feature of the Internet which provides a graphical front end to host computers. It's a colourful hypertext enviroment incorporating pictures, sound, music, and even animation and video. To access information on WWW, just point and click on the relevant words or pictures. The Amiga's WWW software is called AMosaic.

**IRC**

Internet Relay Chat is like using a CB radio, but instead of talking you type. It lets everyone on the Internet chat to each other in real time. To avoid the chaos of 10 million people talking to each other at once, IRC is split into channels. Each channel is devoted to a single topic, such as the Amiga or Star Trek for example. It's a good way to meet new people or ask questions to a live audience.

## Gopher

Similar to W3 but limited to text only, it uses a point and click interface giving access to information and files. NASA

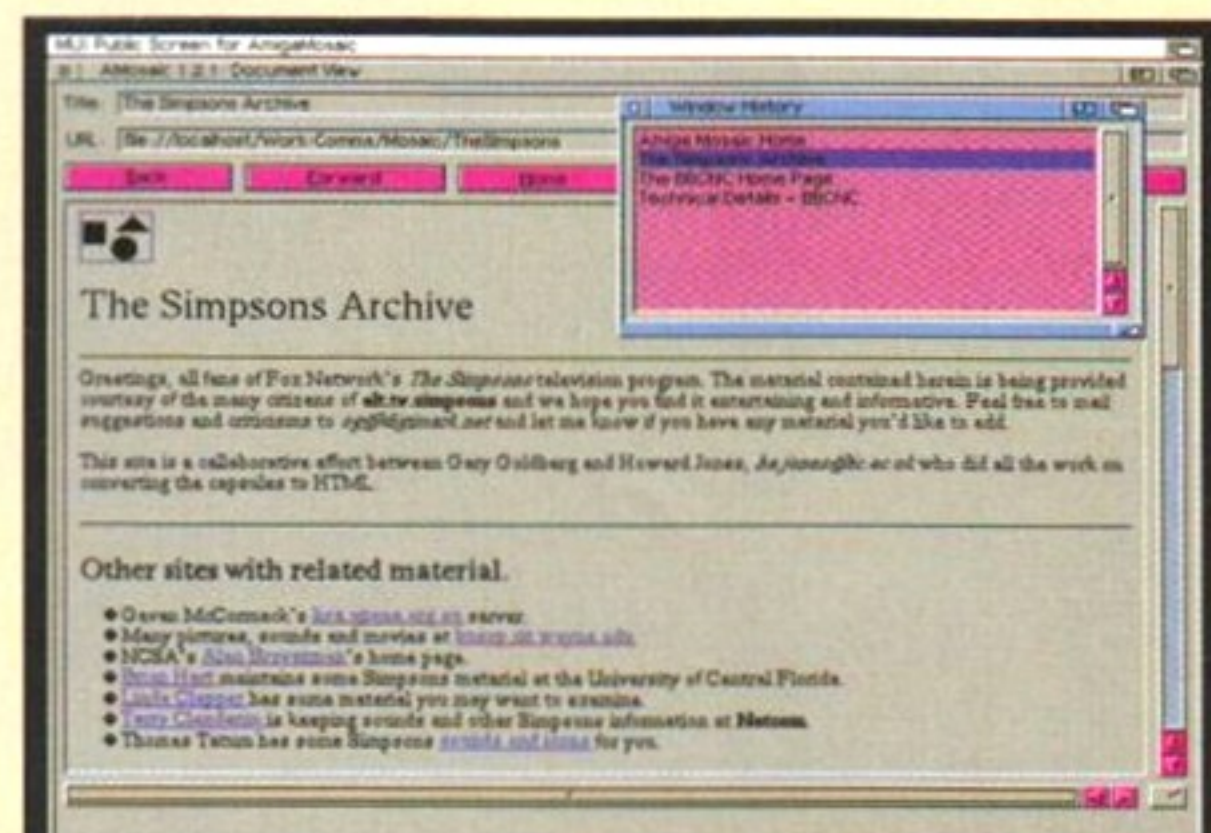
magazines to read relating to all kinds of bizarre or common subjects, often with pictures.

But how do you navigate through this mass of information

on the cyberspacial superhighway? Luckily there are some helpful systems out there that will find items of interest just for you.

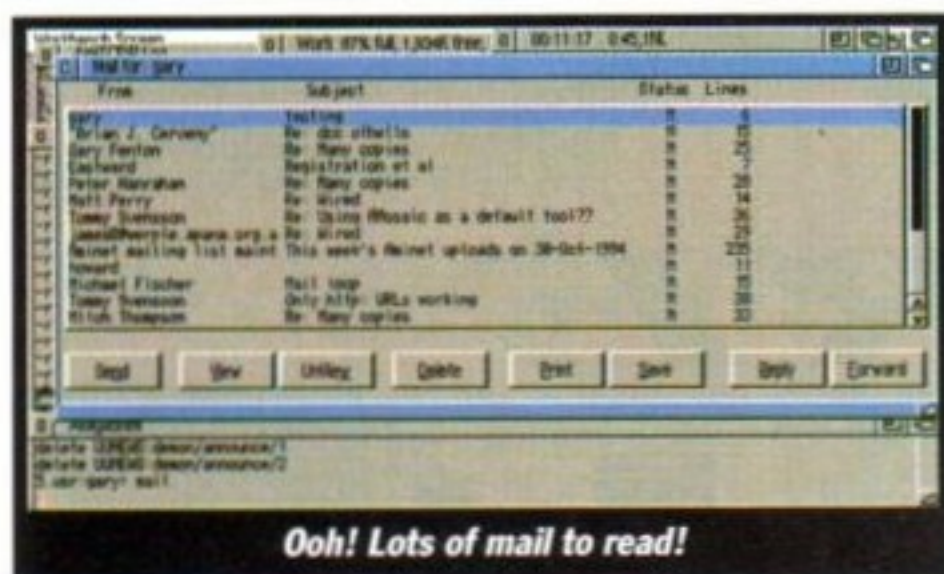
Veronica is one who lives in Gopher-space, and Archie is

another helper who tracks down files on FTP sites for you. You'll also find 'bots who can help you out on Internet Relay Chat (IRC).



***This is The Simpson's Archive on the World Wide Web.  
It's great fun if you're a fan of the TV series.***





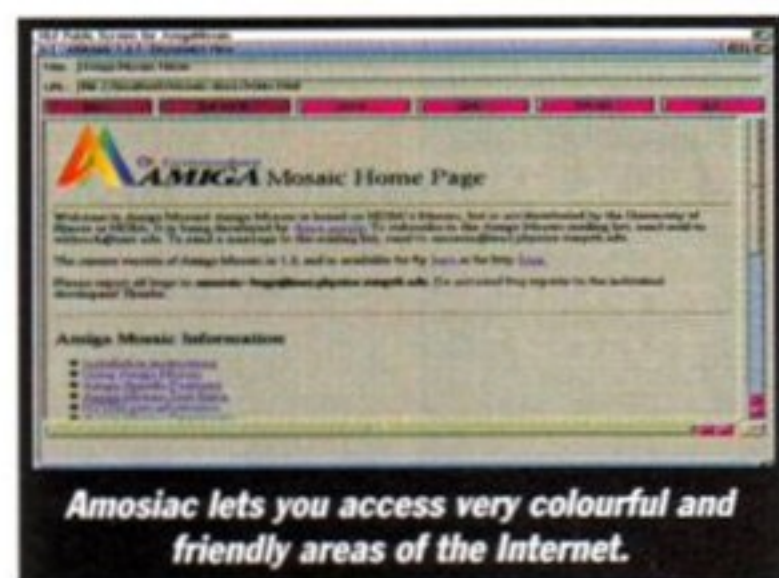
have Gopher sites where you can learn more about space and download pictures from their enormous archives.

## Telnet

A bit like using a bulletin board service (BBS), Telnet gives you access to databases, weather reports and other services. You can also play real time games with other people using Telnet.

## Usenet

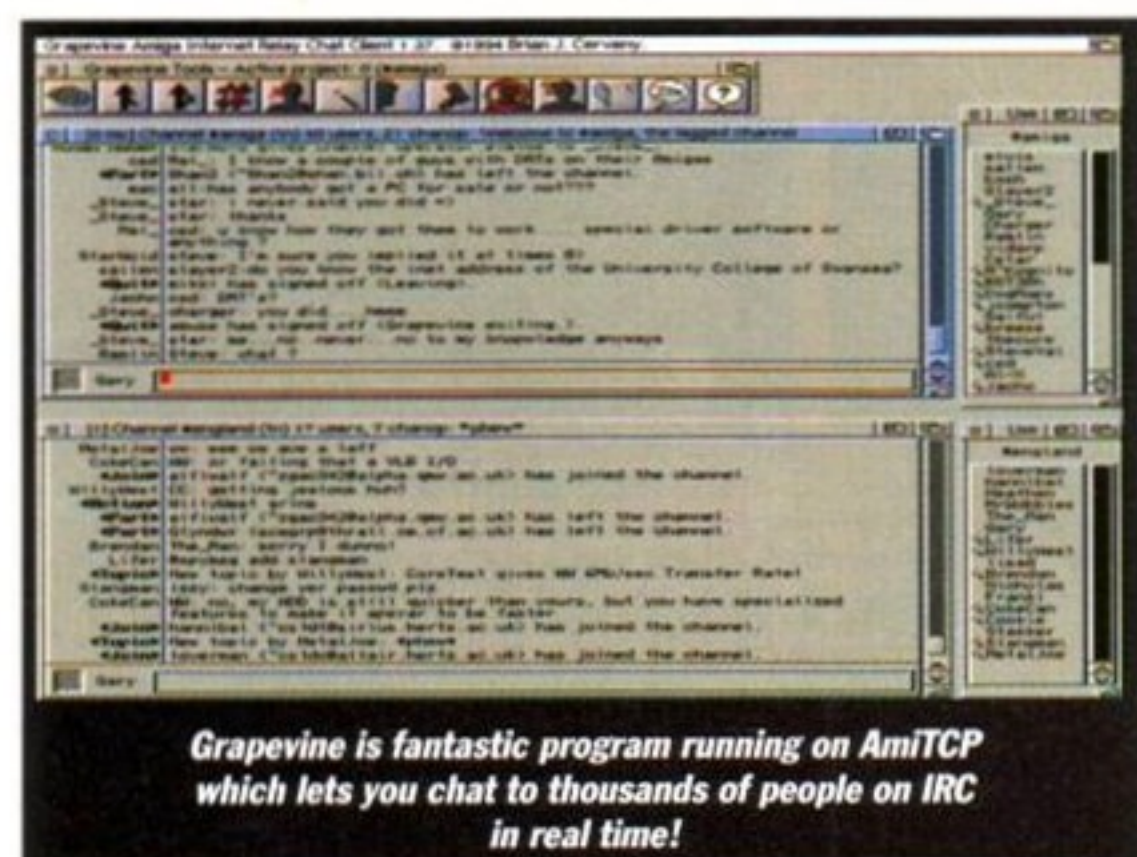
Imagine thousands of conference rooms discussing just about every subject you care to mention. You can join as many conferences (called newsgroups) as you like and read messages from other people and you can reply by posting your penny's worth into that newsgroup. There appear to be about 10 new topics added daily to over 5000 established newsgroups passing 10 million words a day!



Amosiac lets you access very colourful and friendly areas of the Internet.

## FTP

File Transfer Protocol: Using FTP software you can connect to a particular host machine and download files directly to your computer. FTP sites with the Aminet library have over 10,000 Amiga PD programs which are freely accessible! The latest software appears on Aminet as soon as it has been released.



Grapevine is fantastic program running on AmiTCP which lets you chat to thousands of people on IRC in real time!

## How Much?

So how much does it cost to get on to the Internet? Well, the Internet itself is free but getting connected will involve dipping your hand into your pocket. You really need a fixed line and a powerful computer to deal with the sheer quantity of traffic which could cost a king's fortune to



Gopher running on AmiTCP. Point and click - that simple!

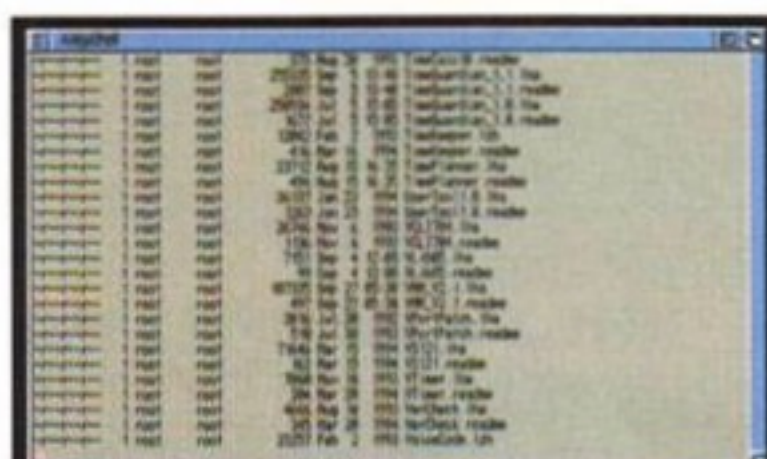


This is a message posted in the Amiga graphics newsgroup which I regularly read.

buy. That's where 'net providers come into the picture. These are companies which have their own fixed lines and powerful machines connected to the Internet. Their expense is shared amongst their customers (you) who pay a monthly fee for their services.

The main net providers for the Amiga (and other machines) are Demon, CompuServe, and CIX. Each provider gives you access to the Internet in a slightly different way and has its own strengths and weaknesses.

Something worth a mention is



I'm FTP-ing an Aminet site and I've typed DIR to get a directory list. Now which program shall we download?

that a lot of host addresses are abroad, mostly in America.

Because you are linked to your local 'net provider you don't have to pay for international calls. You just pay for the local or national call to your 'net provider.

Ah, ran out of space! There's so much to discuss, so join me next month! **AUI**

# DEMON

Demon provide a direct, full connection to the Internet which is good for features and multitasking, but it's kind of tricky to set up on the Amiga. Next month I'll explain how to set it up so you can avoid some of the problems I encountered! The best software for using Demon on the Amiga is AmiTCP (there's also AmigaNOS) which allows you to connect to many computers on the 'net at the same time! The joining fee is £12.50 and there's a monthly charge of £10 (all subject to VAT). There are no on-line fees so all you pay is the usual BT or Mercury phone bill. Tune in next month for full details of joining Demon, or if you can't wait that long dial Demon on 081 349 0063 (voice only).

minute. Call free for more information on 0800 289378. More info as soon as we are given an account (hint-hint!).

## CIX

CIX is an old favourite with AUI because it's just so easy to use. CIX gives you access to most Internet features including IRC and WWW, but everything is text only - no point and click and no graphics. I particularly like CIX's own conferences dedicated to just about any subject you can think of.

Their Amiga conferences are excellent with hundreds of fellow Amiga owners willing to help you out. (But don't push it, and always be polite and to the point!) There are lots of hot discussions and plenty of



This is one OLR, called Lucy, which lets you use CIX at your own pace in a very friendly manner.

interesting topics to browse through.

There are two brilliant off-line readers (OLRs) Nicola and Lucy. These let you read your e-mail and conference messages without being on-line while you do so. This can save you a fortune in bills. CIX costs £25 to join and there's a minimum monthly charge of £6.25 (subject to VAT). You must pay for each minute you're on-line to CIX which is currently 6p peak and 4p off peak, plus your regular phone bill. Now you can see why an OLR is so important - it shouldn't take any more than 2 minutes to collect and post 100 messages with an OLR.

You can join CIX by calling 081 390 8446 (Voice) or have your credit card ready and join while on-line on 081 390 1255 (Modem). We'll be looking at CIX in more detail next month.

## CompuServe

CompuServe haven't yet given us access to their services, so all we have to go on is the information they've sent us. Currently their Internet services are limited to just Usenet and e-mail but they hope to offer an FTP gateway later this month.

CompuServe have a lot of their own conferences (called forums) and support forums represented by 600 hardware and software manufacturers. They claim to have over 1 1/2 million members worldwide, 1000 databases on-line, and over 320,000 files to download. It appears to be a self contained village! The joining fee is £26.45 and their monthly charge is \$8.95 (yes dollars, CompuServe are American) plus VAT. The basic services are free but a lot of the best features cost extra at the rate of 5 to 10 pence per

## AUI ON LINE

If you have any news, comments, letters, or technical questions for Uncle Andy, you can contact **AUI** directly using this e-mail address:

amigauser@cix.compulink.co.uk

Or you can join our Amiga\_user conference on CIX, or contact me personally using e-mail: gary@auimag.demon.co.uk or garygfx@cix.compulink.co.uk

Sometimes I'm on IRC late at night using the nickname "Gary", so I may see you around...



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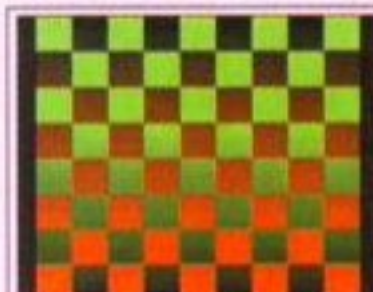
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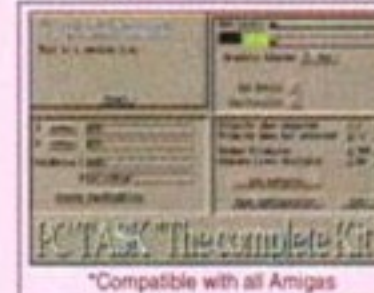
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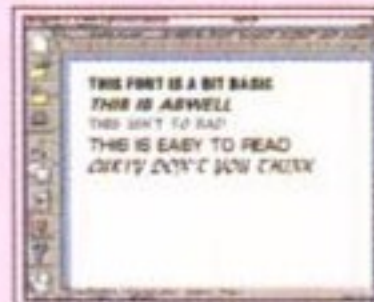
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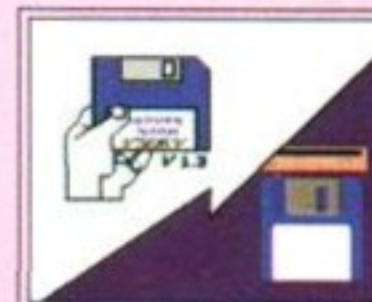
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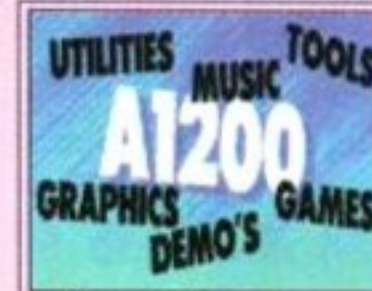
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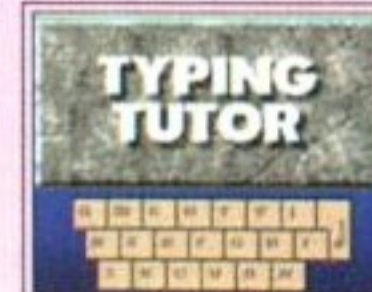
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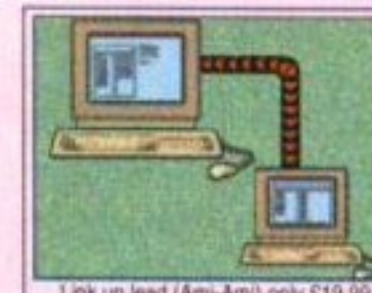
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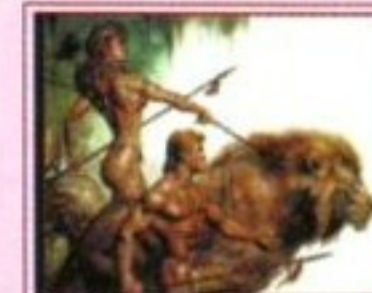
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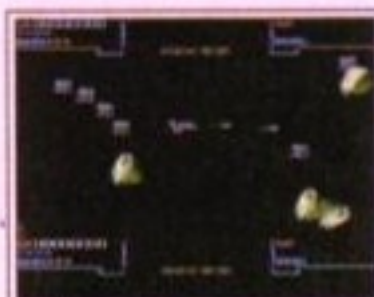
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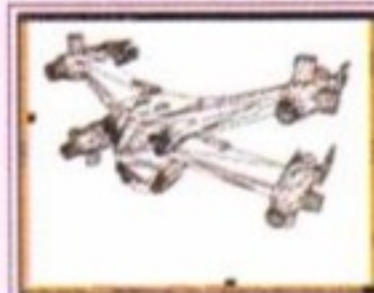
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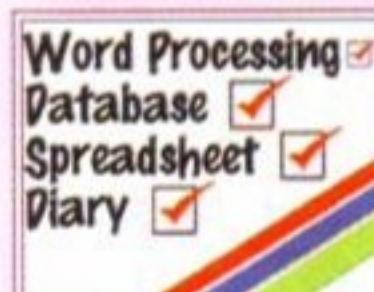
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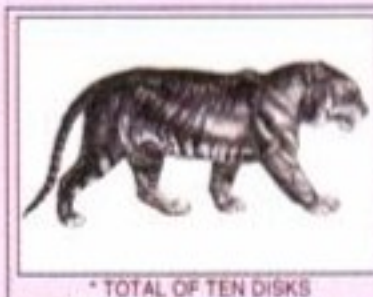
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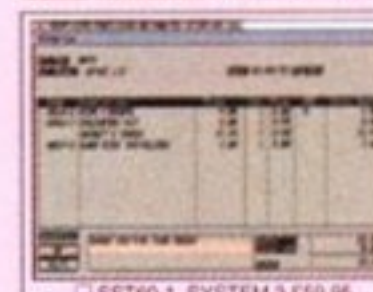
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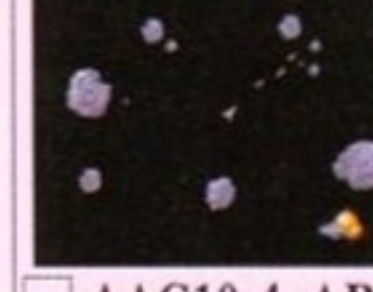
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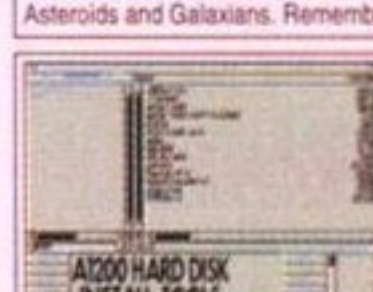
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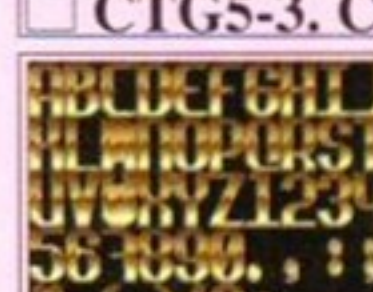
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## Michael Rumbelow ventures to the "fringes of wierdness" to find a Amiga-based leading edge entertainment creator.

**T**he explosion this year in new computer media such as CD-ROMs and the Internet has left much of the computer media industry dazzled, wandering confused and disorientated through the meta-

Hex are based at studios close by the Clink, Britain's first ever prison. Matt Black, (yes that's the name he goes by) is one of the crew who collectively fly the Hex "virtual spacecraft".

# HEX-

phorical wreckage of conventional ways of communicating. Hex, a small London-based multi-media organisation, has consistently spotted and ridden successive waves of new digital technology since 1987. AUI featured an early Hex Amiga-based production on the cover back in 1989.

Hex have their own music recording label, radio show, video computer graphics company, CD-ROM development and production label and live nightclub chillout room VJing crew, amongst other even more esoteric interests.

### **'Say kids, what time is it?'**

Their beginning was a hit record 'Say kids, what time is it?', a 12-inch white label which was one of the most sought-after nightclub stormers of 1987 with its then groundbreaking use of samples (mixing James Brown's 'Funky Drummer' beat with King Louie's song 'I wanna be like you' from the Jungle Book, for instance). They pretended it was a US import to avoid prosecution for bootlegging.

Hex went on to produce their first CD-ROM 'Global Chaos' for the Commodore CDTV, - an innovative mix of games, ambient visuals and music - and have now done several CD-ROMs for both Philips CD-i and the PC. The latest, Digital Dreamware for the PC, is their most ambitious project yet in interactive non-linear music video. It allows you to choose your own computer-generated video 'trip' and interact with the real-time rendered objects and colours using the mouse. For this, as with their other projects, they still make heavy use of Amigas. They are soon due to take off into cyberspace proper with the launch of their own Internet multimedia cyber-spacestation, Pipe.

# Tatic

### **What is Hex?**

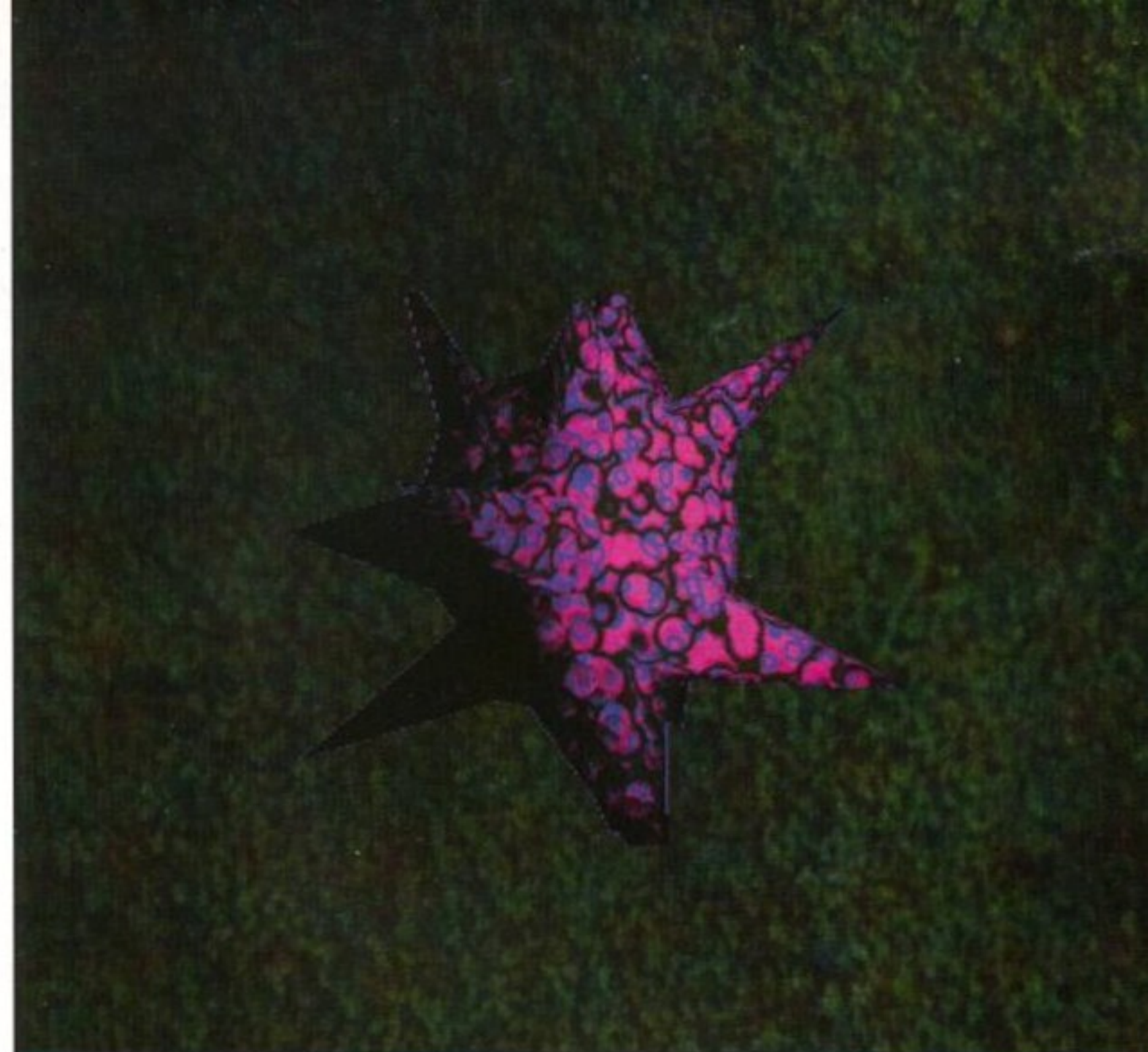
"Hex is a kind of multimedia group, a bit like a pop group, and we have a vision of trying to have control over and be creative with sound, visuals, software and information.

We have quite a free-floating collective of people. We recently split into two camps as an ongoing organic development, but the main guys here in this building are myself, Robert Pepperall and Mario Aguera.

Then there is my partner Jonathan from Coldcut, Patrick who is our DJ and engineer from Coldcut, Ninja Pete who is head of our record label Ninja Entone, Chris who works with him and a bunch of other people who are more peripherally connected. Then there are Miles Visman and Karel Dander who work separately.

I formed Coldcut in 1987 with Jonathan Moore as a kind of DJ-producer group and we were the first group to make sampling records, the first DJ-producer superstars if you like. I had always been interested in computers and computer graphics so as soon as I got some money from Coldcut from having some hits with Yazz and Lisa and stuff I invested in an Amiga set-up.

I met these two guys Robert Pepperall and Miles Visman who's a programmer and I suggested that we form a company together to pursue research in new media."



We also do commercial video graphics work for TV companies or someone who needs a talking head - which we have just done for British Telecom for instance.

On the punky kind of side of things it's for someone who can't afford to go to Soho and get Digital Pictures to do them something for

# VISIONS

### **What is Hex doing now?**

"Well, it goes all the way from eating salt beef sandwiches [he says through a mouthful of salt beef sandwich] to staying up all night until eight in the morning until blood is coming out of your eyes trying to get some 3D rendering package to work. That's the everyday rub of life, but the kind of work we do is: software development, concentrating on CD-ROM, and we do that for various publishers.

We've developed some successful titles for Philips for their CD-i system, but now we are mainly concentrating on PC CD-ROM because that is really the only market that one can live off which is big enough to support the slightly wacky things which we are doing. We also do music production. We make a lot of music which we put out on our own label.

We are actively surfing the Internet and researching the possibilities for products on the Internet and new forms of communication and communities using the Internet.

half a million: we will tell you what can be done for five or ten grand..."

"Also my particular interest or hobby at the moment is video mixing which I do in various clubs and that involves taking an Amiga, a bunch of VHSs, a video mixer and a projector down to a club with a lot of source tapes of mad footage that I've made, mixing in other people's computer graphics and stuff from nature programs, all these kind of sources, and doing with visuals what a DJ does with records - I think it's a natural development - so I've been getting a pretty good kick out of that. It's a bit of a hobby at the moment but it's starting to evolve into a very interesting scene."

### **How do you use Amigas?**

"The first Amiga that I got was an Amiga 2000.... I got the hard drive for it and I got a Rendale genlock for it and a Vidi Amiga. The Vidi Amiga just killed me. I thought this is just the greatest thing ever, just snatching frames from stuff, and the carousel - absolutely brilliant, that really blew my mind. This was in 1989 to 1990..."



"I read about 3D modelling and I got Sculpt-Animate and then spent like 3 nights up getting this guy to walk - I wanted to walk before I could crawl if you know what I mean - and I got him; I've still got my animation tubeman walking along, he's pretty cool..."

"So that was the 2000. I had a lot of problems with that - the power supply kept blowing up and other boring stuff - so eventually I managed to blag a 4000 out of Commodore. I told them that I just wasn't prepared to go on the telly any more explaining to people what the CDTV was unless they gave us some support, so they gave me a 4000, which they are trying to get back now but they're not going to get it back.

Before we had a couple of 500s and stuff floating around but we traded them in and got 1200s. One I got fitted with a hard disk and that's what I use for taking to clubs because it's robust and I don't want to risk taking the 4000 to clubs; the 1200's excellent for that.

That's what we've got: a 4000, an old 2000 and two 1200s. As I said to you before my 2000 has been on for seven weeks solid rendering an Imagine ray-traced animation so it gets a hard time."

## How does the Amiga compare with other platforms?

"Every platform has its advantages and disadvantages. A platform

which combined the multi-tasking and video capabilities of the Amiga with the speed, power, cheapness and ubiquity of the PC with the Midi sockets of the Atari with the friendliness and sophistication of the user interface on the Mac; that would be the ultimate machine. But at the moment we use everything, we use Ataris, Amigas, Macs and PCs.

The Amiga has been particularly useful and I have always championed it. It is a good, punky machine that a lot of people can afford, and you get one and straight away you've got a lot of capabilities there that with other machines you have to buy on more boards and boxes before you can get them to do fuck all. Also there's a very enthusiastic and voracious bunch of people who use the Amiga including some pretty high powered people and they produce some pretty high-powered toys which just aren't available on other machines.

I'm thinking now about Imagine for example by Impulse, which you can get for a hundred quid, that provides a large part of the functionality of the PC program 3D Studio which costs two and a half thousand pounds. It provides 80% of the functionality of that.

I use Imagine a lot and for Digital Dreamware a lot of the 3D objects and textures that we used on it were generated on the Amiga and then converted to DXF format and then to the Renderware format through a pretty tortuous process but it just about works, using Pixel

3D. So I was able to use say Amiga clip art, Amiga objects that I generated, the facilities in Imagine for deforming objects and building objects and add on programs like Morplus for Imagine which is an object distortion utility which you can do waves and stuff with.

Then there's another good program I've got called Lissa which generated the weird knot-shaped organic objects we've got, and again I've been able to generate these objects on the Amiga and then port them over for use on the PC. There simply hasn't been any software available on the other platforms which can generate these sorts of objects.... "

"I have to give a mention here to Steve Morley as well. He runs a company called Apex - he wrote the book for Imagine - and he does utilities and textures for Imagine and they are brilliant. I'm a texture junkie, that's what I'm into, textures, and I've got every piece of software for every platform that I can get my hands on that does textures, and his stuff, his essence textures and the program he's written, Forge, which enables you to edit these textures, is some of the best stuff I've ever seen...."

"Even a tool like DPaint - I use DPaint a lot when I go out with

the Amiga 1200, it's our standby. Again for Digital Dreamware a lot of the assets: colour-cycling pictures and so on were done in DP - and the symmetry tool is brilliant: it's amazing how there isn't anything like that on the Mac, just a hole there that DPaint will fill. That's the message basically: to use the Amiga a lot to generate assets for the products that we do because there seem to be some quirky and very useful things that

only the Amiga has."

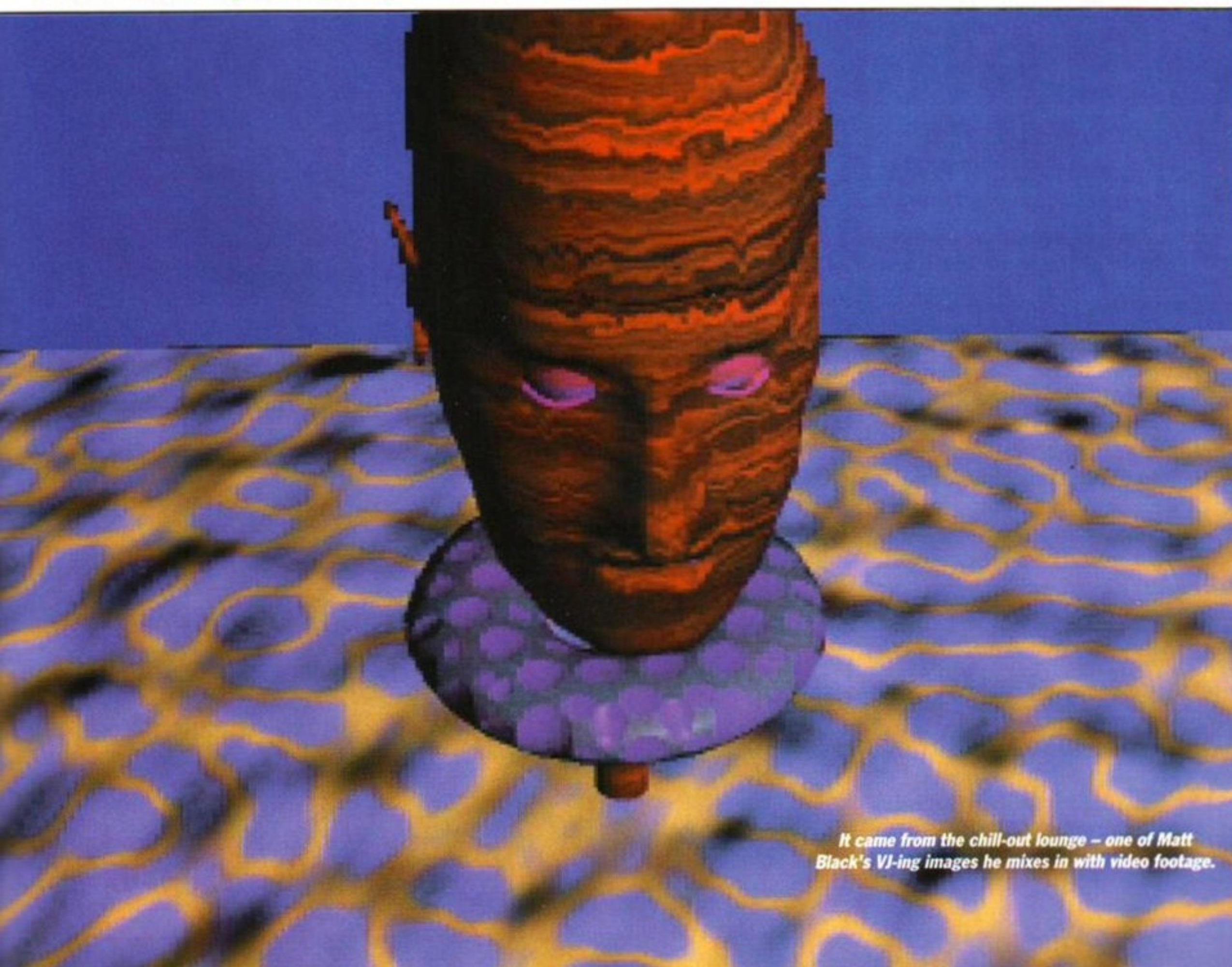
## What was your first experience of a computer?

"I think my first experience was using an ICL. There was a college about 30 miles away from my school and we didn't really have any computer courses but if you were a rozzler, you know, one of the thickies, there was a computer course, and that meant that occasionally you could get to go to this college and use their ICL. So I managed to blag my way onto this and ended up spending about 8 hours just typing code in on this clunky old teletype trying to make this artificial life program which was based on some ideas I'd read about in The Selfish Gene by Richard Dawkins. Do you know it? That book is way up there for me in that I see everything in terms of evolutionary strategies, you know, culture, politics, science, creativity."

## Do you use the Amiga on the Coldcut Radio show?

(Sat. nights 1.00 am - 3.00 am on Kiss FM, 100 FM, London Area)

"Definitely. I remember the delight when I stumbled on the 'Say' program on the Amiga and it was like, hey this is wicked! Well, cool - I can use this! So we were using it to do jingles, just getting it to say 'Coldcut', 'Ride the pressure' - wicked man! We were doing that for quite a few years. Ideally we would have a fully featured vocalist in a box, because that would be a lot easier to control than real life vocalists, but yes, I made heavy use of it. We've even got a track on one of our CDs. It's very rare, the rarest Coldcut track probably and it's called 'Mad Nial says' and it was made with a brilliant program called Nial that came with one of the coverdisks.



It came from the chill-out lounge - one of Matt Black's VJ-ing images he mixes in with video footage.



## HEX-Tatic Vision (continued)

So it's interactive Amiga Robot Poetry, strictly. This is the sort of thing I'm really into. The fringes of wierdness."

### What new kinds of interactivity are there now?

"How about for example plugging in your brain wave analyser like I've got for the Mac - I've actually got one - and routing the output of that into your Mac and then the output from there piping that into say a music generation program. So that your brain waves as they move and fluctuate are actually modulating music which is being sequenced and played. At the same time real-time graphics generate abstract 3D shapes so that your brain waves are affecting the colour, orientation and shape and size of 3D objects which you are viewing through surround immersive VR goggles..."

"The stereotype of the solitary computer nerd stroke game addict, that kind of technological masturbation, is really only a temporary phase. My point is, play Tetris by yourself, it's very addictive, like a mind virus that gets you. Play Tetris with somebody else on two Gameboys linked together and then you're really smoking. It's like a tenfold increase in involvement and excitement. And playing against other people, against your mates, against someone in Canada over the net is going to be a lot more funky than just wanking away by yourself."

"Coming from another tack, I'm personally with Terence McKenna an American drug guru and lateral thinker, I'm into enhancement of human psychic potentials by any means necessary including chemical materials, full-on electronic stimulation, tribal dance, group mind fusion or whatever. I think I can see the way that technology is going to go for quite a while now, the timescales may be variable, but, you know, the bio-chip, Eric Drexler's work with nano-technology, genetic engineering - all very frightening stuff. The only way I think that humans are going to survive is if we evolve ourselves and I think the evolution of the mind is the prime area."

In a way technology has already got boring, even though it is the most interesting exciting full-on thing that's going on at the moment. You do need to start thinking how that's going to interact with the rest of the universe and what mankind is going to do with itself, other-

wise we are just going to dig ourselves a big hole in the ground and fall into it.

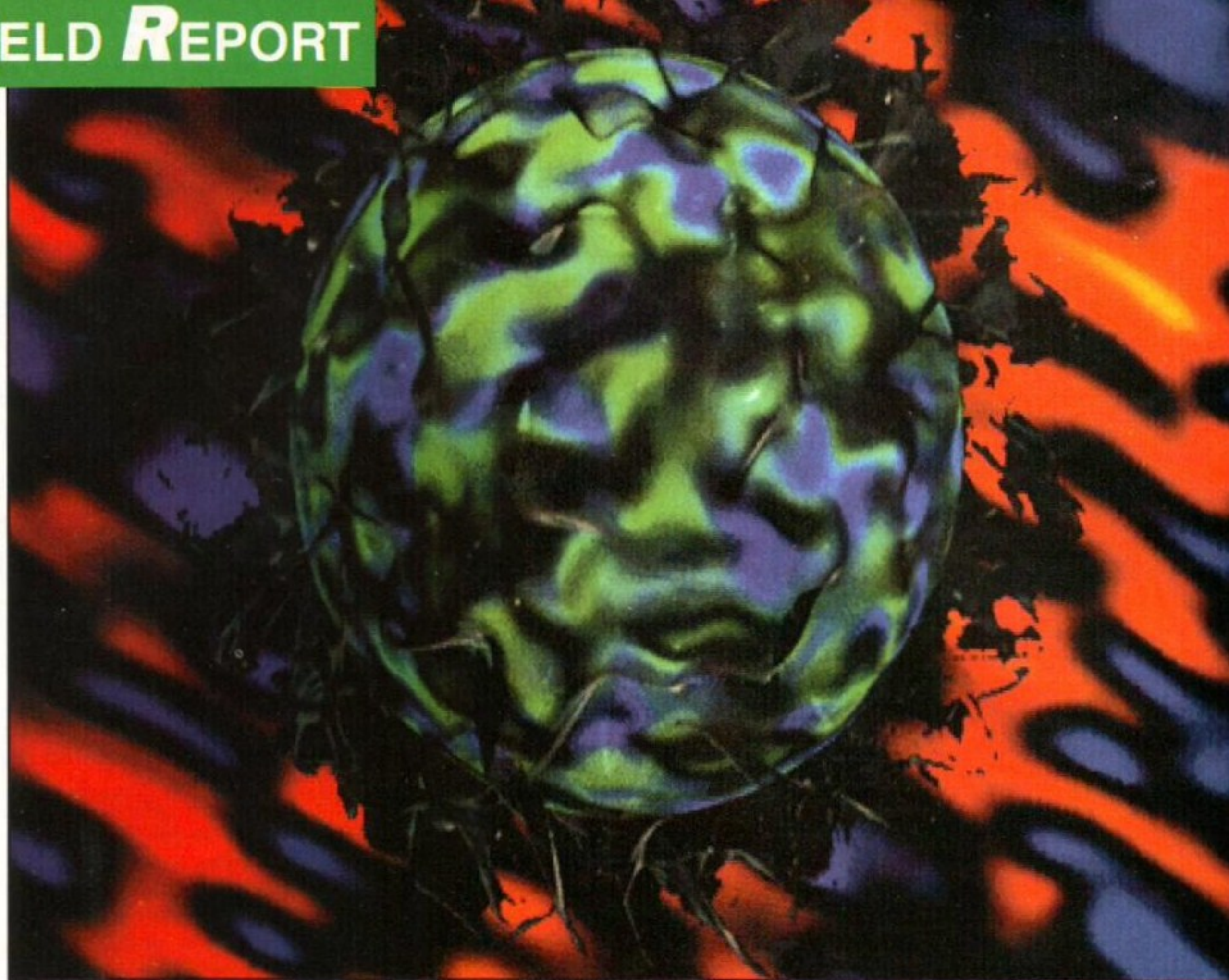
Technology has replaced evolution, that's what I'm saying, and we're speeding up in a kind of feedback process which shows every sign of getting to a singularity quite soon..."

### What's Hex going to be doing in two years time?

My ideal for Hex would be a kind of foundation whereby we were able to give people who had ideas and wanted to do something small amounts of money to get equipment, so that they could then start teaching themselves and researching their own ideas with their own equipment. The people who worked on that and came up with results we would work with and the people who were just too crap we would drop. So it would be a foundation to do research in art, science and technology and not forgetting fun, and to start as many people off as possible on the path of doing it yourself and working on the fringes. That would be my ideal."

I let Matt Black munch the last of his sandwich in peace.

Perhaps Hex is itself a model, an ideal, of the fast reacting, high creativity, techno-organisation that

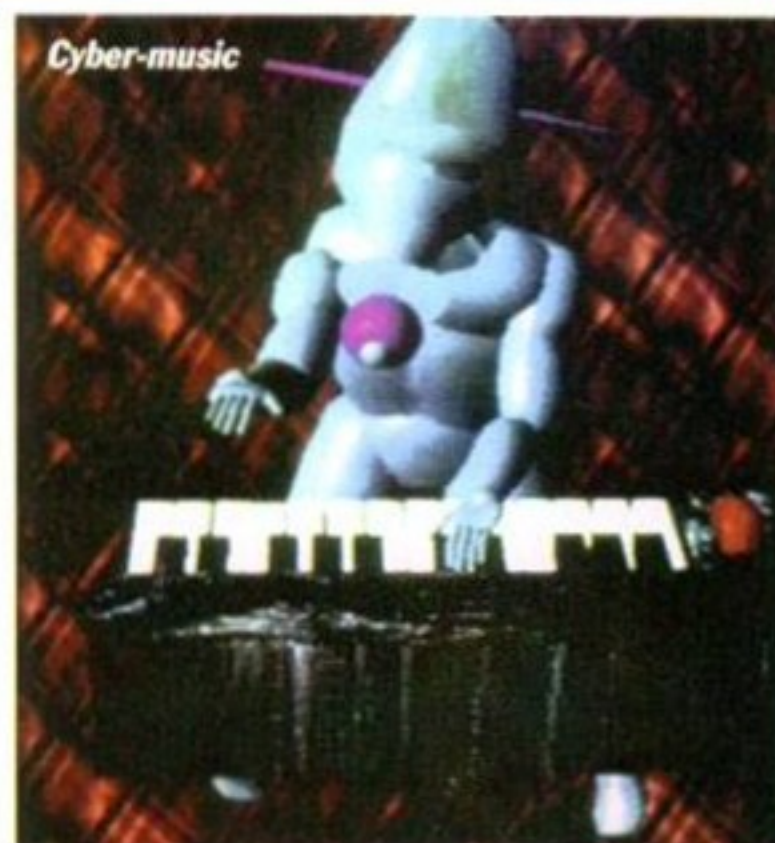


A kind of crispy blob from a cranny of Hex's mind.

Hex on the net: you can e.mail Hex on [ae47@cityscape.co.uk](mailto:ae47@cityscape.co.uk). You can log on to pipe, the Hex netzine, using software like Mosaic by a quick <http://www.southern.com>.

is emerging in the changing world at the end of this millenium but will be common in the next. Most conventional business people might see Matt Black and Hex as way out, at "the fringes of wierdness". But maybe though, it's the fringes of "wiredness," where they will show the world what can be even more successfully achieved by using technology creatively in the coming years as they have already done in the past. AUI

'Tea, anyone?' Matt Black's original tubeman. Are you sure that was sugar you put in it?





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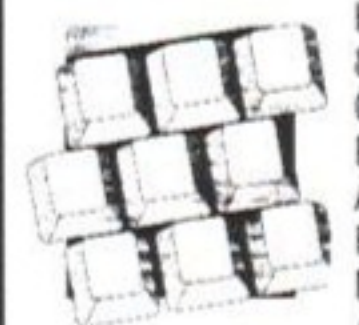
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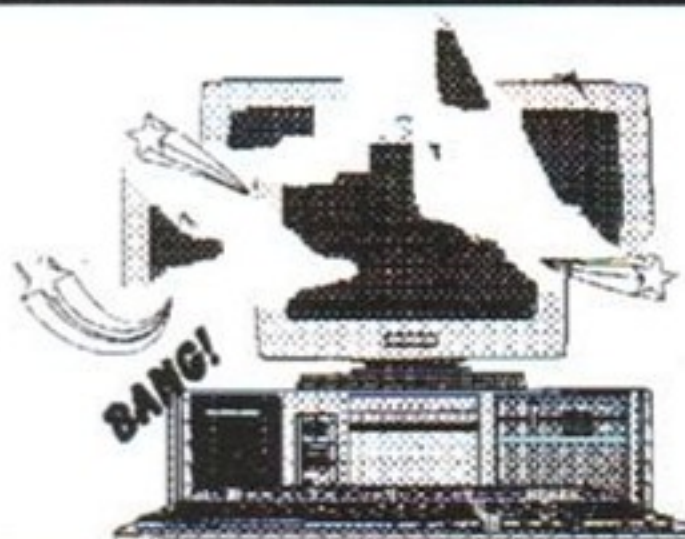
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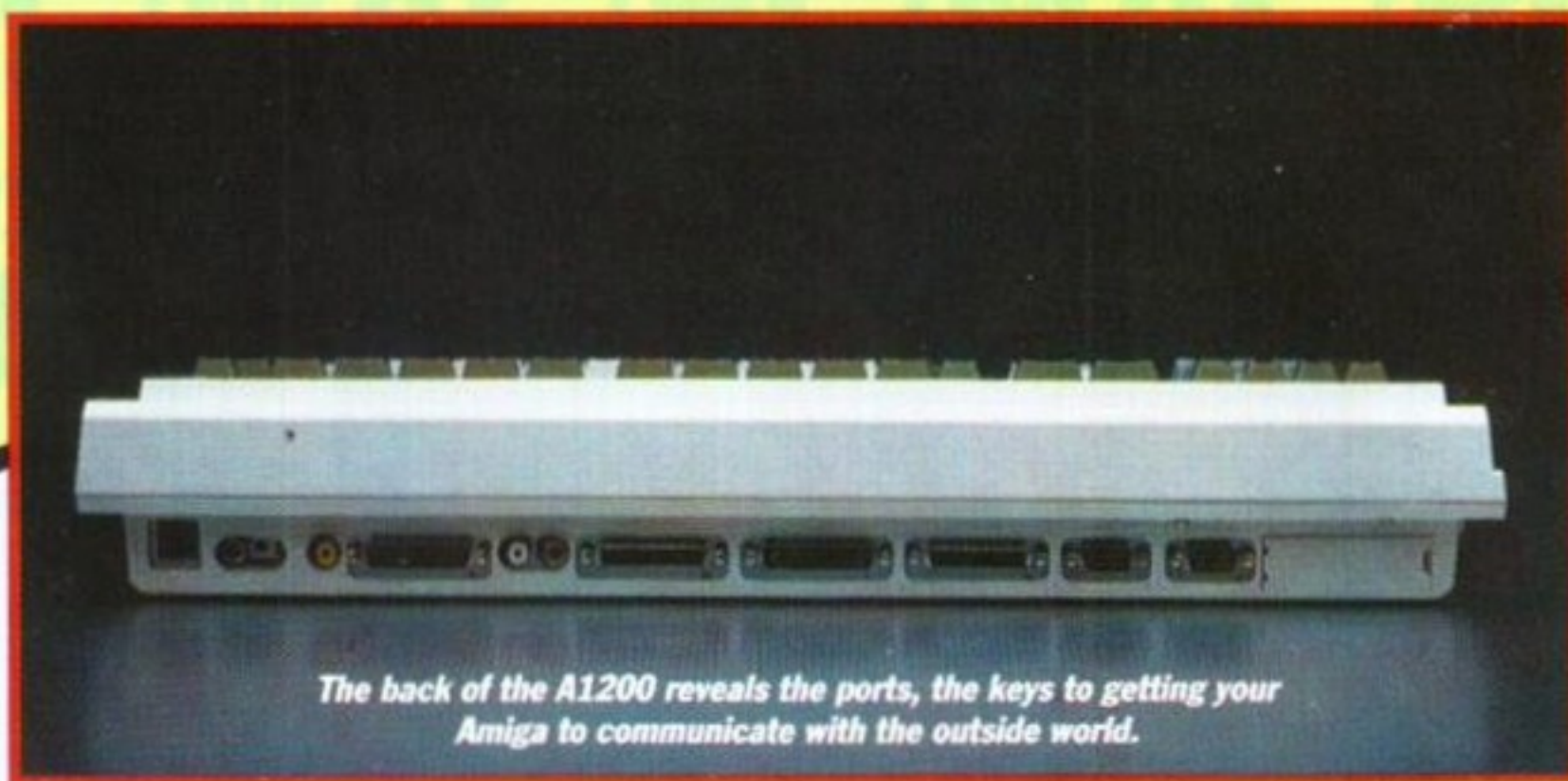
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*The back of the A1200 reveals the ports, the keys to getting your Amiga to communicate with the outside world.*

Input and output - those naff sounding terms that you heard at school and thought were as useless as the rest of what you learnt in Computer Studies are actually fundamental to the use of almost any computer - as any good (bad?) computer studies teacher will tell you. I/O is a very wide area, covering basic disk/file handling to exciting things like video grabbing. As the first multimedia computer, it is no surprise that the Amiga excels in its ability to communicate with the outside world and there are all manner of exciting bits and pieces which you can hang off you Amiga to get stuff into it and out of it.

Input is about data gathering - getting the information that the computer works on. Perhaps the most common input devices (because you use them all the time) are those which you employ to tell the computer what to do - the mouse, keyboard and joystick. Similarly, the commonest output devices are monitors and printers.

Every Amiga comes with a bevy of ports. The majority of expansion devices such as memory and CPU upgrades will attach more directly to the central electronics of the Amiga via a Zorro slot or CPU bus. Most I/O devices will connect to one of these ports, the exceptions being devices that need very fast transfer rates, devices that prefer to be mounted internally or those which would otherwise require a port that you don't have.

All Amigas have a serial port, a parallel port, two joystick ports (one doubles up as the mouse port), stereo output sockets, a port for an external floppy disk drive and a RGB video port (except the CD32 which has a SVHS style connector). The 600 and 1200 have a PCMCIA slot for credit card-sized peripherals; this is like a Zorro or CPU connection only not quite as fast. And the 3000 and 4000T have a SCSI port (more about that later).

## Transfer

The serial port sends data one bit at a time, hence its name. It is mostly used to hook up to modems, although you can also connect a printer here (printers are usually attached to the parallel port). You can use the serial ports of

two computers (they don't have to both be Amigas) to communicate between them using comms software. The computers behave as if it were a modem link but in reality you are bypassing the modems and the telephone line. This is sometimes the last ditch solution when you need to transfer large files from one machine to the other.

The parallel port can send eight bits (a byte) in one go, so is generally faster. It's most common use is to connect to a printer (sometimes the port is referred to as a Centronics port). But many other devices that need reasonably high transfer rates also connect here. Some video and audio digitizers do, and there even used to be a range of hard drives which connected here. The Epson scanners connect to the parallel port too.

The stereo output sockets are the standard RCA hi-fi type - they'll connect easily to any hi-fi amplifier, tape deck etc. with ease. Putting your Amiga's sound through a proper hi-fi system will give much better results than the internal speakers of a monitor or TV, and it makes it easy to record sound too.

The output is a bit high for most headphones, so if you want to listen in privacy you should use the headphone socket of your monitor - if it has one - or go through a stereo system, which will again, give the best results.

These sockets are for output only - if you want to record sounds into your Amiga you'll need a sound sampler. Amiga sound is four channel stereo (two channels each for left and right) and the resolution is 8 bit. The quality depends on the sampling frequency. If you are really into sound and you've a Zorro slot equipped Amiga then you could get a 16 bit sound card which will give you CD quality sound.

If you are a musician, then you may be interested in getting hold of a MIDI interface (Musical Instrument Digital Interface) which will allow you to connect your Amiga to MIDI equipped keyboards, synthesisers etc., and con-

trol them through sequencing software,

such as Bars 'n' Pipes.

## Genlocks

When the Amiga first hit the computer scene it was easily the most graphically powerful machine available; the Macintosh was a black and white executive toy, and the PC was mostly limited to shades of green. Times have changed since then, and the other machines have caught up with and in some areas overtaken the Amiga's graphical abilities, but the Amiga still has enough power to drop a few jaws. There have been loads of graphics related gadgets for the Amiga. From input devices like graphics tablets, digitizers and scanners to output devices like 24 bit graphics cards and Genlocks, most areas are very well covered.

The classic Amiga graphics device is the genlock. With one of these gizmos you can put Amiga video graphics over another video source - useful for video titling, for example. Some genlocks have the ability to fade the graphics in and out - sometimes under software control. There are a wide range of genlocks available for the Amiga, ranging from hobbyist units to broadcast quality.

Getting video out of an Amiga is a relatively simple operation, using a genlock. Getting video in, however, is a bit more complicated. The video signal has to be converted into a digital signal that the computer can understand - and this is a very intensive task. As a consequence of this, most video digitizers are only capable of grabbing one frame of video

at a time. Even the better ones, like V-Lab, require several passes to grab a section of moving video.

Video takes up huge amounts of space, so you'll need a really huge hard drive. If you really need to capture sections of high quality video in a single pass then you might want to take a look at P.A.R.,

reviewed by Barry Macarthy in a recent issue - which will essentially turn your Amiga into a digital video recorder. There are also several complete digital video editing solutions in development for the Amiga.

## Digitising

If there ever were a single piece of hardware that "made" the Amiga it was NewTek's Video Toaster - which arguably kept the Amiga alive in the US despite Commodore's many blunders. Sadly so far restricted to the American, NTSC dominated world, this video box of tricks allowed videographers to do with an Amiga and a couple of thousand dollars what they pre-

*Increasingly popular graphics add on.*





viously needed tens or even hundreds of dollars to create. The Toaster also came bundled with a 3D rendering and animation program, LightWave (descended from that old Amiga classic, VideoScape 3D) which rapidly went on to become more acclaimed than the Toaster itself! (But that's another story.)

Some kind of video digitizer is ideal, then, if you need to get pictures into an Amiga for work which will be presented on screen. For desktop publishing however, you may need something with a higher resolution - like a flatbed colour scanner.

Gideon Overhead has just

dictated by your needs. If you are a programmer, and want listings out fast and cheap, and don't care too much about quality, then a dot matrix will be fine. If you want to send out letters that look almost as if they were printed on a laser, then an inkjet or bubblejet is the machine for you. If you really need laser quality and speed, and have the money, then get one, but bear in mind that unless you get a PostScript compatible laser and are using it with software that supports PostScript properly, you are essentially buying a high resolution dot matrix printer; everything will be converted to a bitmap before being sent to the printer. An A4 bitmap at 300 dots per inch weighs in at just over a megabyte, so printing will be slow because of the time it takes for the Amiga to generate that bitmap and

print in colour this is very washed out and not at all sharp or vibrant - a bit like drawing with dried out felt tip pens. A colour inkjet or bubblejet will produce much more solid and sharp colour, but don't expect photographic quality. I have seen output from an inkjet that was almost as good as a photo but then the printer cost more than £20,000!

If photographic quality is what you want, then go for the dye sublimation model of the Fargo Primera - excellent quality at a fraction of the price of a larger machine - although the consumable costs are not cheap.

High end colour printers are invariably based on PostScript Level 2 and usually print either by thermal wax or dye sublimation, and generally require special paper. These printers generally cost at least £5000 so they are

read and write Macintosh disks without the use of an emulator. Perhaps more usefully, it will allow you to access Mac hard drives via a SCSI connection.

SCSI (Small Computer Systems Interface) is the most widely accepted standard for connecting hard drives and other peripherals to computers. It allows the connection of up to seven devices, which can be external as well as internal, so is much more flexible than the cheaper IDE standard which only permits two internal devices. Before the advent of the A600, which came with IDE built in, SCSI was the standard hard disk interface for the Amiga (although the only machine that came with it built in was the A3000).

Although IDE drives are slightly cheaper, SCSI drives are often cheaper to upgrade (example - I've got an 80mb drive which I've outgrown. So I buy a 200Mb drive. With IDE I have to chuck away the 80mb model - with SCSI I can keep it - giving me 280Mb!). The advantage of being able to have external

# No Amiga Is An Island

## Part III

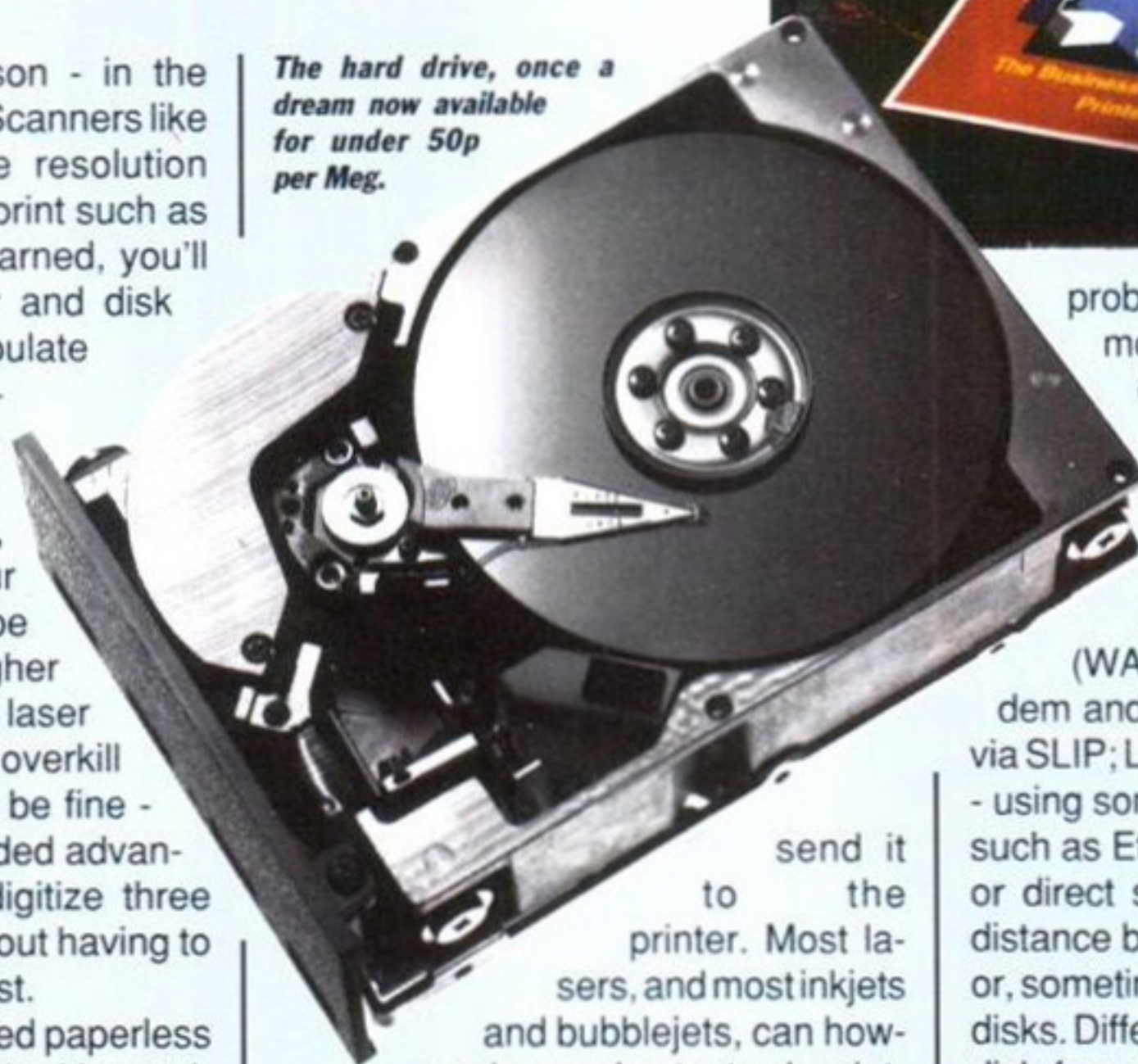
**Getting it in and putting it out... Aitor Ibarra explains the key points of I/O with the outside world.**

reviewed the latest Epson - in the December issue of **AUI**. Scanners like these will give you the resolution needed for professional print such as this magazine, but be warned, you'll require tons of memory and disk space in order to manipulate those images. To be honest, the top Amiga DTP programs, PageStream and Professional Page, aren't really up to it. If your design is never going to be output at resolutions higher than the 300-600 dpi of a laser printer, then a scanner is overkill and a video digitizer will be fine - and you will have the added advantage of being able to digitize three dimensional objects without having to take a picture of them first.

The much heralded paperless office never arrived; and with word-processing, DTP and junkmail, the use of the computer has arguably led to a larger consumption of paper. However comfortable you are with working on screen, sooner or later you are going to need to print something out.

Your choice of printer will be

*The hard drive, once a dream now available for under 50p per Meg.*



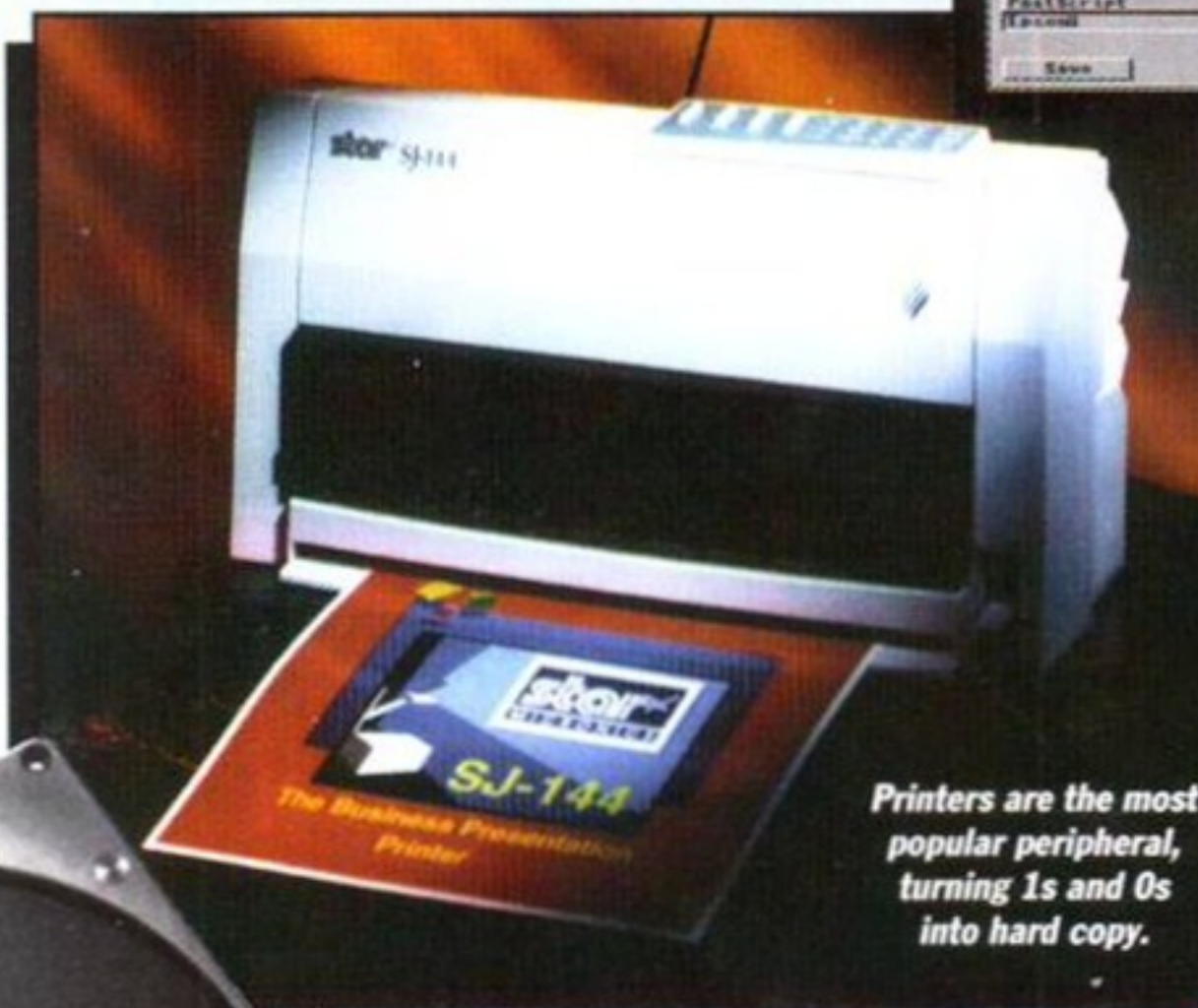
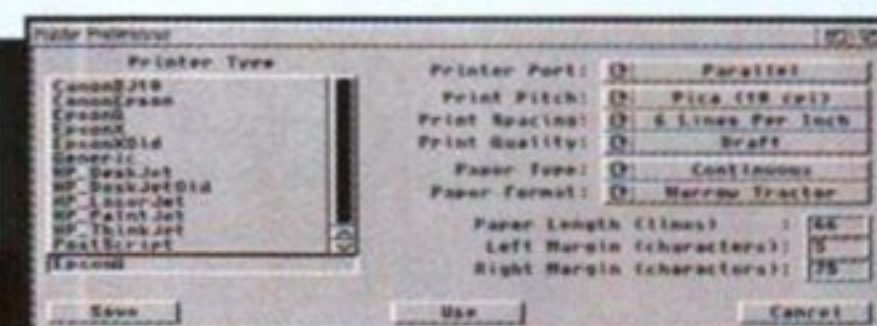
send it to the printer. Most lasers, and most inkjets and bubblejets, can however be used as text only printers - which will be very fast but limited to the printers built in fonts.

### Colour

If you need colour prints, I hope you've got lots of money! Avoid cheap colour dot matrix printers - although they do

*Above: CrossDos is the system that allows your Amiga to read, write and format PC disks.*

*Right: To work properly with the Amiga, a printer needs a driver, which you select in the Printers preferences program.*



*Printers are the most popular peripheral, turning 1s and 0s into hard copy.*

probably beyond the reach of most Amiga users! Input and output can refer to boring old data storage and transmission. If you need to share data with a remote computer, then you have four choices - Wide-Area Net (WAN) - networking using a modem and a protocol such as TCP/IP via SLIP; Local Area Networking (LAN) - using some kind of network interface such as Ethernet; a direct modem link or direct serial link (depends on the distance between the two machines!); or, sometimes the easiest option, using disks. Different platforms have different disk formats, but most machines can read PC/MSDOS floppies so you can use these as a medium. This is easy for the Amiga - use CrossDos (supplied with Workbench 2.1 and up). Consultron, creators of CrossDos have recently launched CrossMac, which with a high density drive, will allow you to

drives is obvious; you can cart large amounts of data between SCSI equipped machines just by moving the drive. Alternatively, you can use removable media such as Syquest disks or optical disks - like having very large floppies. The SCSI 2 standards support very high transfer rates - up to 10Mb/s - but in reality not many hard drives sustain a speed much faster than 2Mb/s. The higher transfer rates can be achieved, however, by using a RAID (Redundant Array of Inexpensive Disks) which is made of several drives. For instance, you have four drives, each capable of 2Mb/s, if you split the data four ways, you can achieve an 8Mb/s transfer rate. The four drives appear as one to the computer. This use of RAID is referred to as "striping".

The other use is "mirroring" - where data security rather than speed is the emphasis - the data on one drive is exactly copied to another - so you have a drive that is very unlikely to lose data as result of a disk error. RAID's were originally developed for large multi-user systems, which is where the term "inexpensive" comes in - inexpensive for them, not us! RAID's are the key solution for large amounts of broadcast quality digital video - they are overkill for most other uses.

I hope we've gone some way to showing the potential that every Amiga has by hooking it up to other bits and pieces. Even the smallest Amiga has dreams, you know.... **AUI**



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# Opinion

**B**ehind some of the glossy magazine advertisements and stands at the Amiga Shows, companies are devising schemes to off-load excess gear and abandon the Amiga scene. Some callous computer companies are feigning strong support for the Amiga in the hope that they can dump their remaining stock and run for the PC† hills.

This is an understandable and even natural business practice in a dog-eat-dog world. Companies are entitled to change their direction in the search for profits. What they are not ethically, or even perhaps legally, entitled to do is sell product on a hollow promise of continued support for the Amiga platform when they don't intend to deliver it.

We saw it happen with Atari. Suppliers and retailers left with excess stock faked support for the product until the moment they unloaded their last piece of kit. Then they abandoned Atari completely, leaving proud new Atari owners without any way of making the most out of their "investment". In short, the buyers were conned into thinking something was going to be long term when those who were selling had no intention of supporting it in anything but the short term.

There are true Amiga supporters out there - I learned that during a short stint in the computer supply industry last year. Many of these companies have forged a name for themselves through top-notch support for the Amiga, which they are pledged to continue.

Others are pretending that they will still be there long after you have bought your Amiga, peripheral or software, to help if you need assistance, maintenance or to expand your system. But they have no intention of doing that.

This practice is ethically wrong and legally dubious. These suppliers make a sale on the basis of a promise to give substantial long-term after-sale service. Most people buy, almost regardless of price, from companies they think will be there for them in the future. Companies play on this customer need - some actually provide a great service. Others are currently implying they will continue to offer full Amiga back-up but are already planning to completely abandon the platform.

I am concerned that people, especially families entering computing for the first time, will be duped into making an investment, or increasing it, in the Amiga, on the promise of support which will not materialise. What will be the answer when they telephone a few months later? They may well be told the company now only does PCs.

Companies could say they are only doing

**Mark Blackham**  
**takes to task the**  
**Amiga suppliers**  
**who are conning**  
**Amiga users into**  
**thinking they will**  
**give proper support**  
**and suggests a way**  
**for the Amiga to**  
**overcome the**  
**apparently**  
**irresistible PC.**

what is in their best interests - to survive financially. They are wrong, and short-sighted. Their longer-term survival is actually dependent on making computer-buying a safe and successful decision. New and even more experienced computer-buyers need support. They need an intelligent, expert person answering the telephone who can help them solve their problems or offer practical ways of expanding their system to suit their needs.

It is wrong that these unwary buyers, as well as long-term Amiga stalwarts, wander the lanes of Amiga shows unaware that some of those rosy company promises are hollow. A recent example reported to **AUI** was a hard drive sold without any instructions at all to an inexperienced buyer who was unable to install it and had to try to get another, competing company to help him.

The same problem of lack of support began to happen with Apple Macs a few years ago - when they seemed doomed to a tight niche market, even in America. Apple, and Mac software developers, appear to have saved themselves by embracing the competing PC platform. Now you can own a slick,

powerful Apple which is virtually fully compatible with PCs and are ever-closer in their association with IBM and its PC compatibles.

The PC is undoubtedly becoming the world standard, even in the home. Though we may not like it, it makes sense to have a very basic computing standard which makes it easy for the world to communicate. The widely diverging standards of the late 70s and early 80s were madness. Continuing with incompatible platforms, certainly in business, would have doomed the world to a catastrophic inability to communicate.

As English becomes the world's unifying language, so PCs will become the unifying common computing 'language'. The place of alternatives is to be compatible with the standard, but offer extra desirable features. People own Macs because of DTP, of perceived image-processing power and a user-interface style they like, combined with a reliable support network. The PC standard itself will change as it adopts the innovations of computing alternatives.

People like Amigas because the easily accessible plug-n-play nature fronts an extremely powerful and usable low cost computing package. But at the moment Amigas are like the hapless Swahili or French languages against the unstoppable worldwide sweep of English. As with the local language advocates, Amiga supporters are vainly trying to stop a foregone conclusion by throwing up temporary barriers.

To survive, Amigas have to act like Apples and go with the PC flow. Amigas have to offer hardware and software PC compatibility as standard and yet boast that distinctive style which has captured our hearts; ease-of-use, reliability and a low cost for power ratio.

The answer to Amiga's future is two-pronged. Amiga retailers and suppliers must ensure they offer a fool-proof service and back the product. Cutting corners is the fastest way to create a self-fulfilling prophecy of the Amiga's demise. More importantly, the Amiga must become a platform from which retailers and suppliers don't want to cut and run.

Manufacturers of Amiga peripherals and software designers have done an excellent job of realising the platform's potential and extending its life, but the Amiga itself must undergo a radical transformation which uses astute technical and marketing skills on a par with the new Apple regeneration.

The Amiga has to love and hug the PC to death and Amiga users must have genuine and continuing support from those who supply Amigas and the products that run on them.

*The opinions expressed in this column do not necessarily reflect those of Amiga User International Magazine.*



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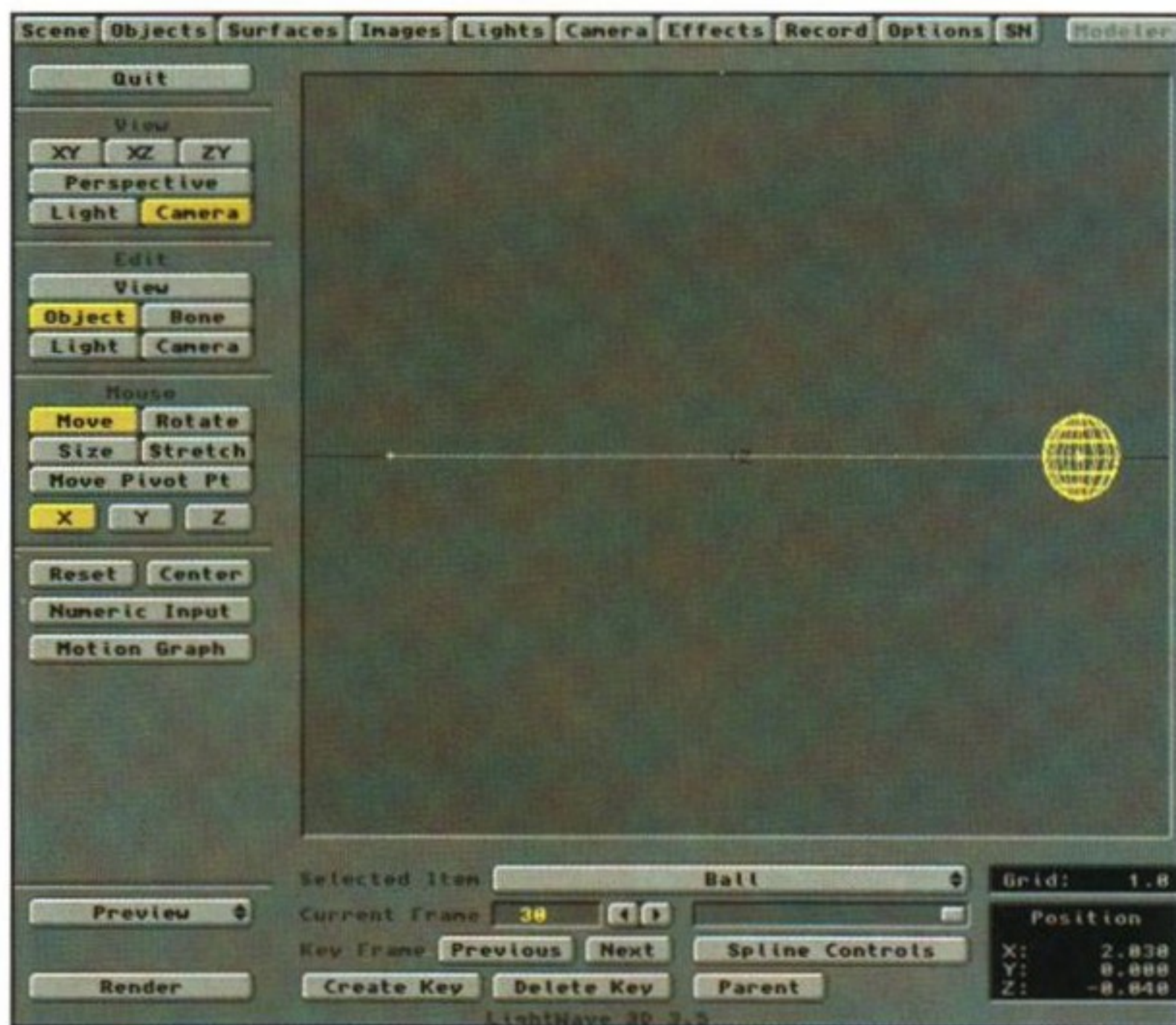
**W**hat are splines? They are curved lines. Right, on to the next tip. No, no, no, wait a minute, there's much more to them than that.

If you create an animation, where a ball goes from A to B, the ball will have 2 key frames; the start point and the end point. The remaining information, to describe the ball's motion, is a line between the key points. In this case, the line is absolutely straight.

Now let's add a third point between A and B but move it up, so

# 3D Tips

**Barry McCarthy takes a piece of jargon and "splines" how it can be used to create some complex but very smooth animations.**

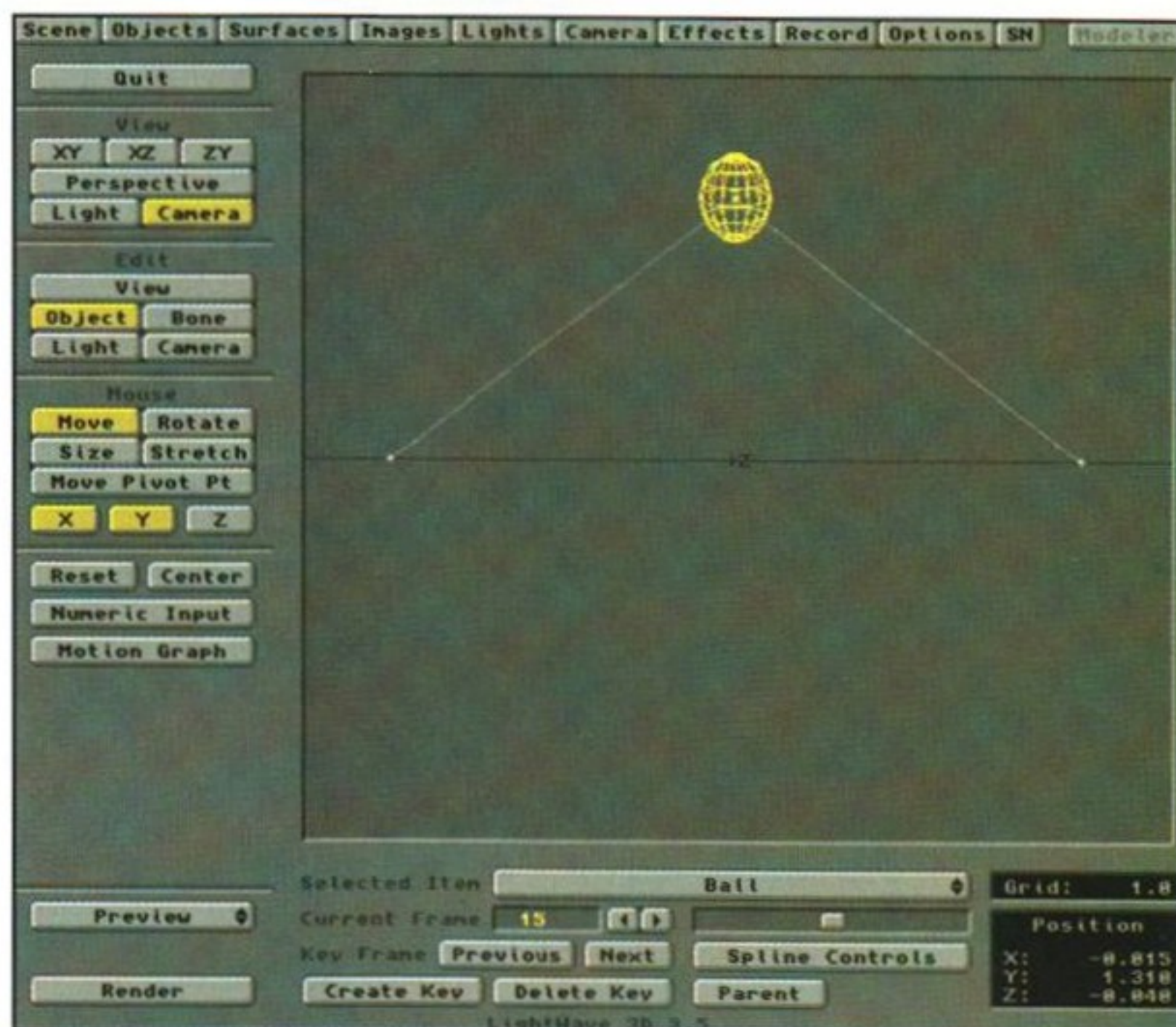


that the ball will go up from point A to the new point (let's call it C) and then down to point B. What does the line look like?

It's a curve . . . In fact, it's a SPLINE. A spline is a curved line that is generated automatically between points in LightWave, rather than using

sets of straight lines. Imagine if it didn't do this; objects would zip about in jerky movements, instead of the nice smooth movements that LightWave provides. In fact, if you really want to see the difference, then try using Imagine 2.0 (yuch).

What IS a little more tricky in



LightWave, is when you decide that you would like to edit the splines. They are automatically calculated and generally do the everyday jobs that are required of them BUT there are plenty of times when you are going to NEED to change them.

Going back to the ball, let's make it accelerate at the start, from a speed of 0.

There are 3 things that control the behaviour of splines. The one we are interested in, is TENSION. Don't bother what it means, it's not important, you just need to be able to use it. You can click on the Spline Controls button at the bottom right, but don't. There's an easier and more useful way.

What you want is T of +1. In fact it's very rare that you would want any other value. Making T +1 at the start of a spline, will accelerate the object away from that point and making it +1 at the end of a spline will decelerate it towards that point.

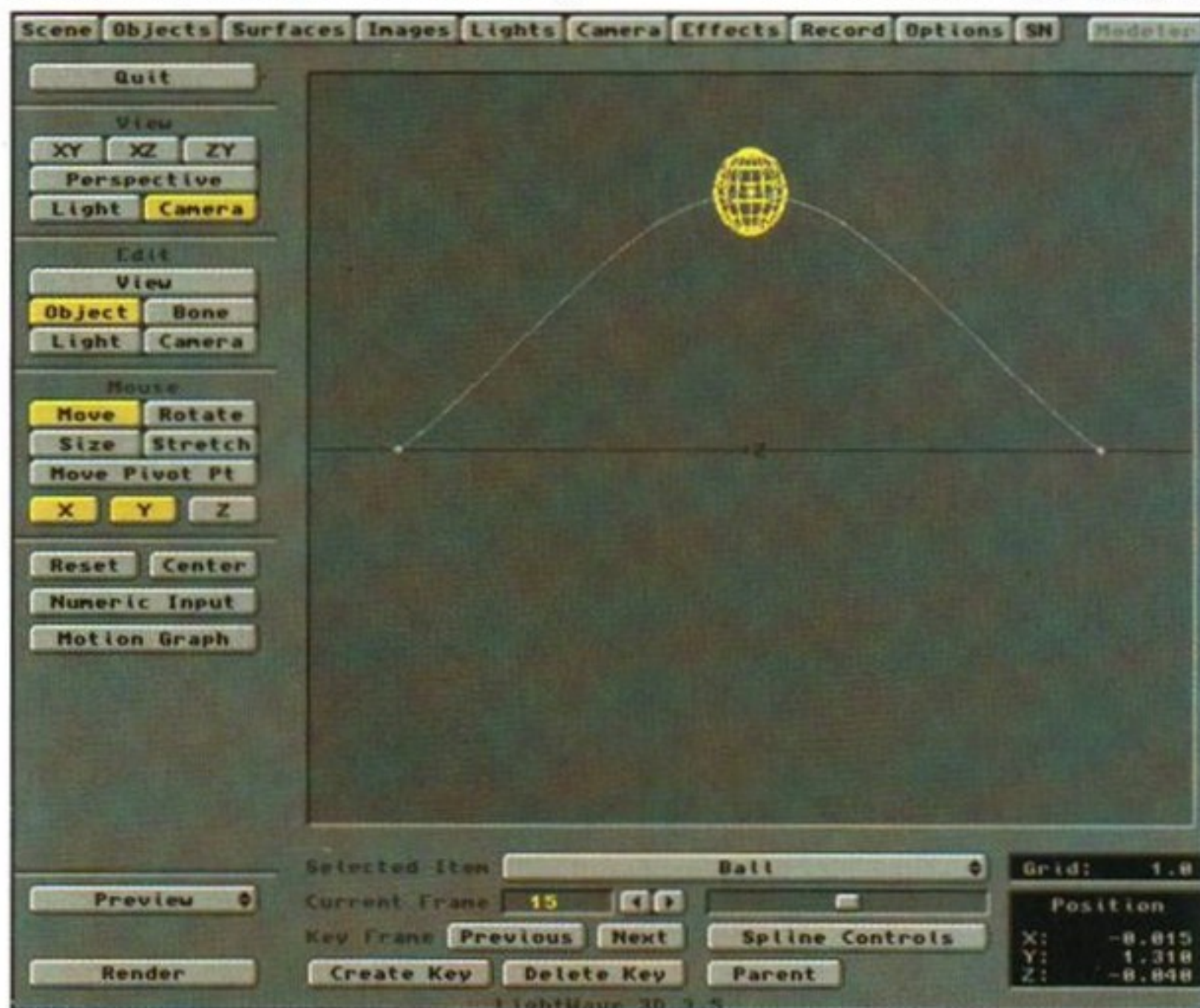
Try the above ball example with different T values at the start and end points and see what happens in a preview.

As you can see, at the central key frame, the velocity drops down a fair bit. Select this key and again hold

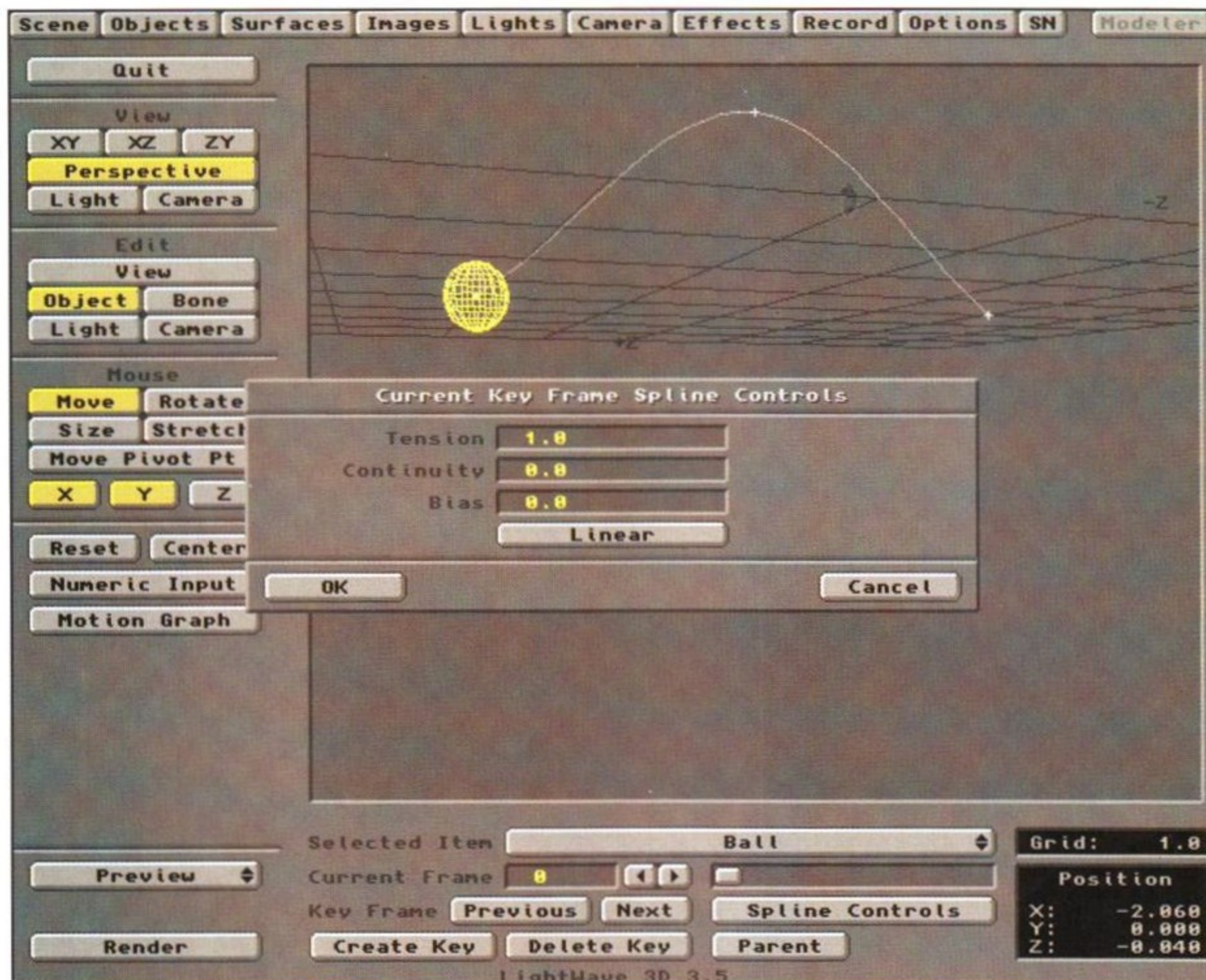
**TIP**

**Hold down T on the key board and then press the left mouse button. Now as you move the mouse left and right, the value of T will change between -1 and +1. More importantly, you can actually SEE the effect on the spline in layout.**

down the T button on the keyboard. As you move the left mouse button left and right, the T value changes and so does the velocity curve. Just alter it until the curve looks more natural and smoother (in this case it comes out at -0.35, something you'd never be able to guess at without visual feedback). Bear in mind that some differences between key frames are just too great or the number frames between them is too small, for this to help much. Try increasing the number of frames between key frames if you want nicer movements.







## VITAL VITAL VITAL

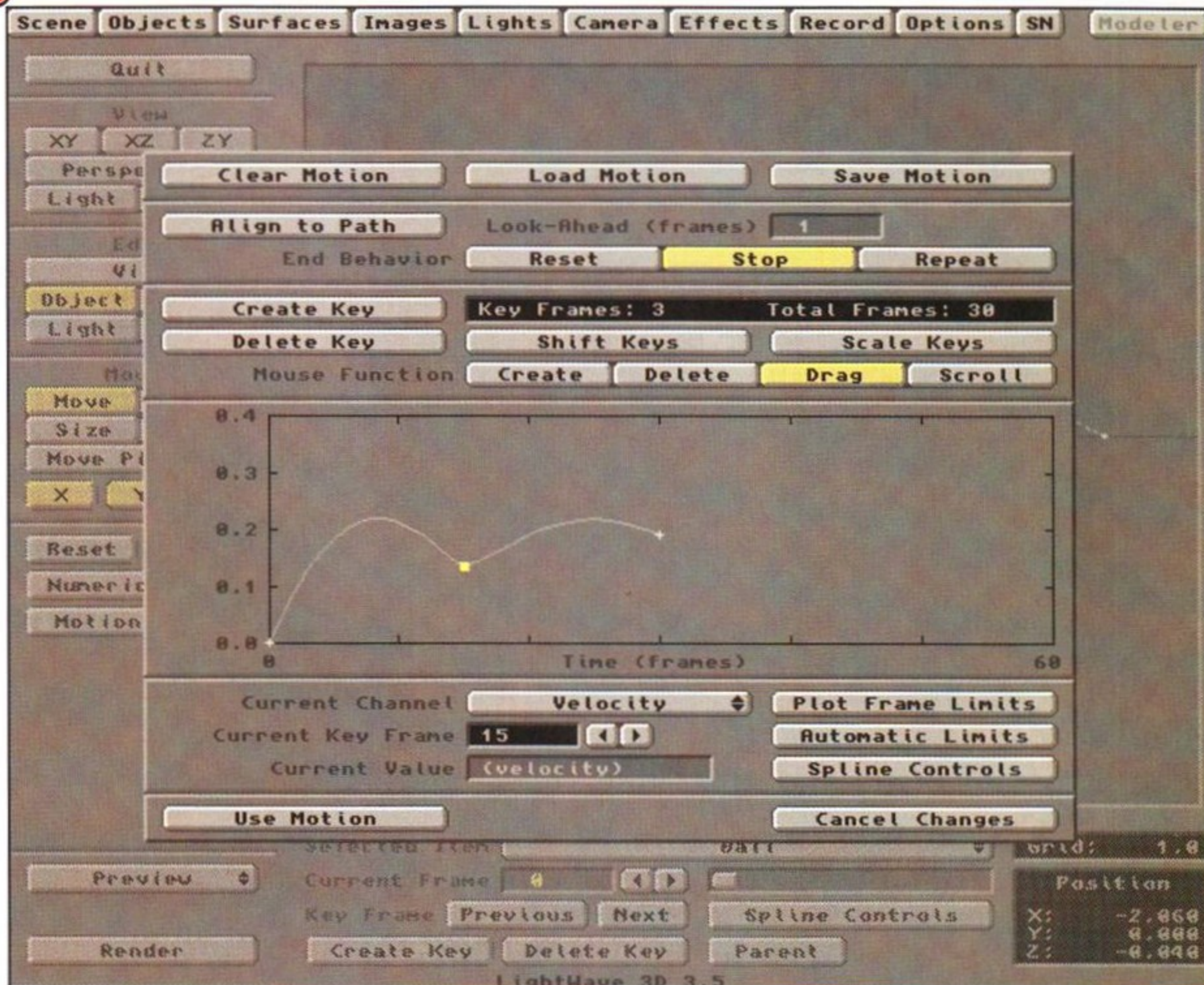
NEVER create a key frame unless you absolutely have to. It's ALWAYS better to have as few key frames as possible. If you follow this simple rule, your animations will be 100% better and 100% easier to edit.

### News

LightWave 4.0 is on the horizon. I'm off to see the official press release on the 18th November. It should be in the shops a week or two later and will cost £750 on Amiga, PC and Silicon Graphics. Upgrade from 3.5 is £150. We'll try to get a review of it as soon as it arrives. **AUI**

## TIP

Another fabulously useful use for T is to smooth out more complex motions. Take the ball again and alter point C so that the ball not only goes up, but comes towards us and doesn't go as far as the point half way between A and B. Make sure that the first frame has a T of +1 for acceleration. Create a preview and you'll notice that the ball slows down at point C and then speeds up again as it goes through it. Not very smooth and probably not what you want. To smooth this out a bit, press the **MOTION GRAPH** button at the bottom left of layout (assuming you still have the ball selected). Now ignore most of this requester for now and go to the **CURRENT CHANNEL** menu. Choose Velocity and look at the graph of the ball's velocity in the middle of the screen.





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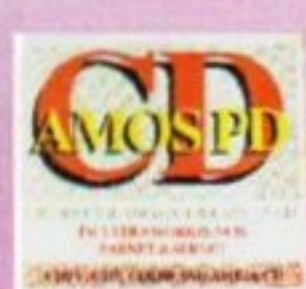
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# It's All Done With Mirrors

**David Taylor reviews "The Magic of Image Processing", a book that introduces you to the world of image effects.**

The first thing that struck me about this book was the front cover. Let's forget the 'judging a book by its cover' business; this is a book about images. The front cover should be stunning. Instead, it's a picture of a pink rhino. Wow.

But maybe the text is just so stunning that it only requires an understated cover to mask the wisdom it holds. Nope.

Before we go any further, I think some ground rules should be set out. A book that costs £40 should be thorough. It shouldn't be badly edited. The pictures should be excellent and preferably full colour.

Mr Morrison's definition of rotoscoping left me a little bewildered. As far as I'm concerned, rotoscoping is an animation technique in which real images are drawn over to produce an animation. The technique assigned to it in this book is no more than digitising. It's true to say, of course, that with such new terminology, words have different meanings in different areas, both physically and in terms of computers. However, I've not come across anyone else who agrees with this definition.

When I was a small child, my father sat me on his knee and said "Don't ever write a sub-head and then start the section by talking about something else." I listened well. It therefore irritated me highly to come across a title "Ways the computer can change the image" followed by the sentence "Before describing the ways a computer can change an image, take a moment to learn how computers work." If that's what the section's about, what's wrong with "How computers work"? Why use a sub-head that doesn't relate? Argghh!

Pictures. Some of them are good, some of them are bad. I thought that the book should have been full colour, instead of black and white with colour sections. On top of that some of the pictures are almost rubbish. Some of the morphs done are really lame. I know that setting up and creating morphs is a long, tedious and therefore expensive job, but if you're going to use them over pages and pages of a book, you should make the effort.

Do I have anything good to say about this book? Well, yes, I do.

The Magic Of Image Processing is a worthwhile attempt to sum up the extensive subject of computer manipulation of images. It covers how they can be converted from video or

paper to digital information, with a nice explanation of scanners. There is a section on how images are stored, including descriptions and the pros and cons of the types of image formats, such as TIFF or JPEG. Of course, writing about a field as dynamic as this one has its pitfalls, as the information is soon outdated.

There are also sections on Photo CD - quite interesting; morphing - interesting, particularly the tutorial if you didn't already know how to do it, and a very hefty part on PhotoStyler, a

PC 'clone' of Adobe Photoshop. The last part seemed a bit superfluous as it was the only part of the book that made it specialised. Until then, the

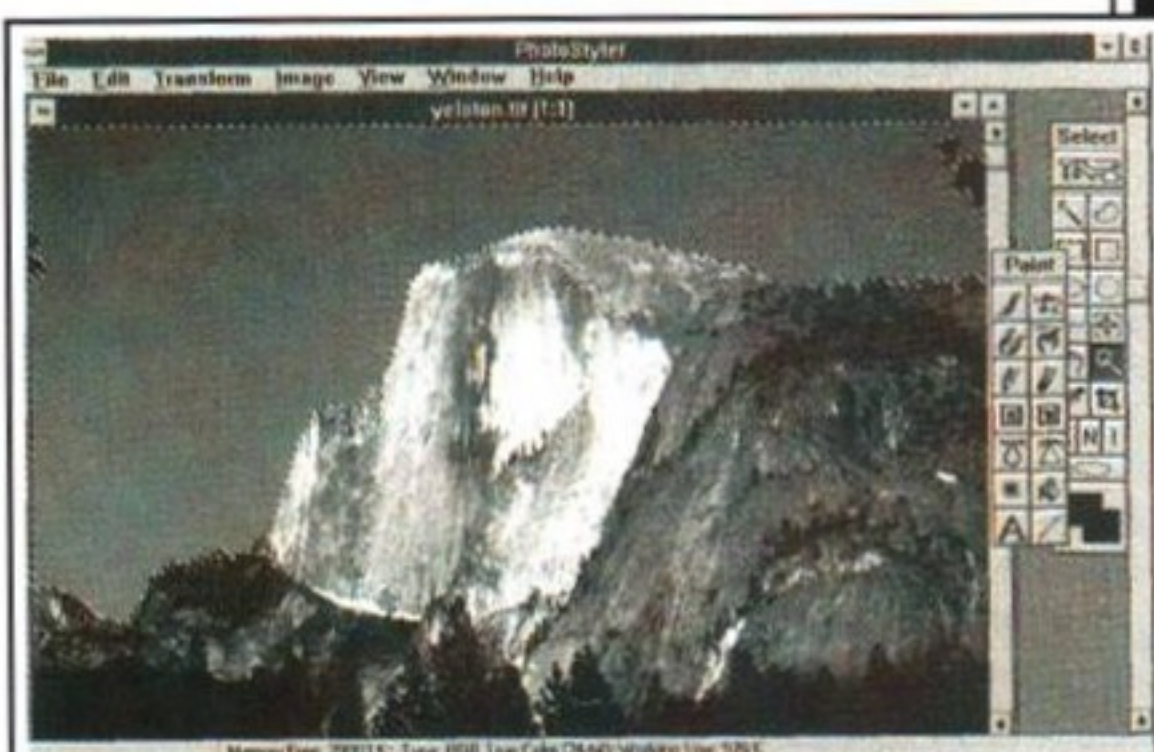
by Amiga people. There are also some 3D glasses to use with the five 3D images, which are fun. Still, if you're going to include glasses, more than two relevant pictures would have been a good idea.

This book is a good read, but it doesn't really fit a category. It's not detailed enough to make it a useful reference book, nor is it commercial enough to make it a general read.

Had the author taken a bit more time to consider other platforms and their uses, I would have been more impressed. Since it comes from the land of the Video Toaster, I was surprised to find no more than a passing mention of the Amiga. OK, the Amiga isn't exactly a high end machine, but it has its uses and professionals often find that having one around can be very handy indeed

(see The LightWave Challenge article in this issue). It would have been an idea to talk about that instead of focussing on the PC, which is hardly the medium that leaps to mind when you consider image processing. The pictures really could have been better too.

My honest opinion is a bit cheeky. I'd borrow it from a library. It's worth reading, very much so in fact, but not worth the money from your pocket. Get your library to order it. That way lots of people get to read it and nobody ends up with a book they'll never open again lying around. **AUI**



Photostyler in action on the PC.



1. The smiling author, hard at work.



2. His ears start to raise a little.



3. Nose and mouth are extending forward and his eyes start to blink.



4. Now his true personality becomes apparent.



Here are the morph points and edges that were used.

Gosh. That's an impressive morph - very high quality indeed. Not. Bloody PCs!

book remained quite neutral in terms of platforms, making it fine for any users. Then all of a sudden, a hundred pages dedicated to one program for one platform.

Accompanying the book are two PC disks with demos on. Yawn. But there are some images that can be used

## INFO

The Magic of Image Processing

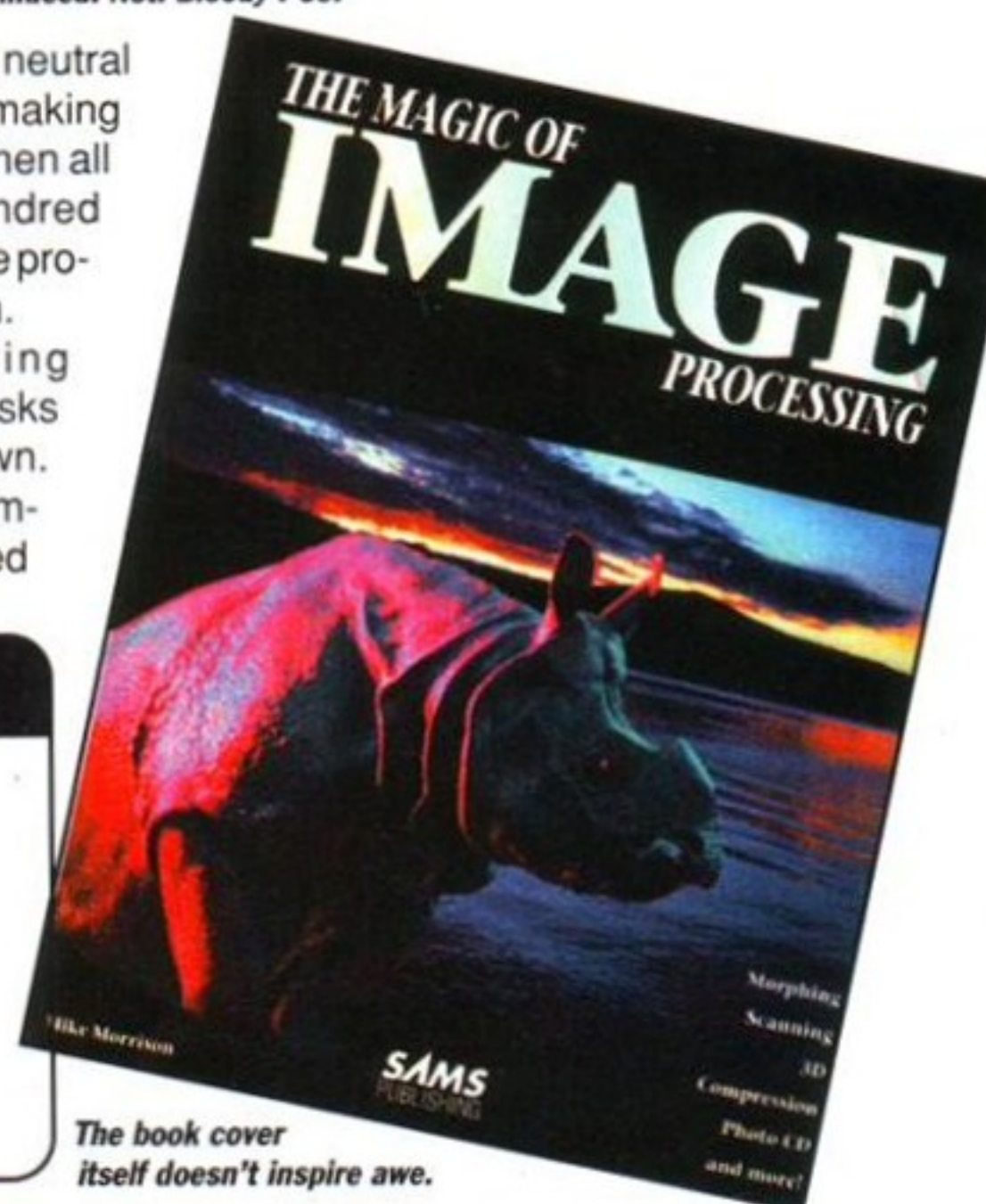
Rating: 70%

Author: Mike Morrison

Publisher: Sams Publishing

ISBN: 0-672-30315-9

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The book cover itself doesn't inspire awe.



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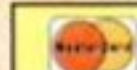
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# PROGRAMMING TIPS

## Paul Overaa explains how a little Amiga Library routine can be used for tracing program execution.

One of the oldest and most effective, ways of tracing program execution is to include print statements to record the fact that a particular section of code has just been executed by printing a suitable message. The same technique can also be used to dump the values of important variables. C of course has a standard printf() library function that can be used for these types of jobs whilst Basic and ARexx not only have their equivalent PRINT and SAY commands but provide other inbuilt trace facilities as well. Assembler coders can easily do exactly the same thing and it is not even necessary to write your own output routine - there is a ready made C-style printf() function provided within the amiga.lib library.

The printf() routine, as C coders will already know, is a general purpose output formatting function whose first argument (parameter), a string of characters known as a format string, is used to tell the function what you want printed and how. For example, the statement:

```
printf("%s/n","have just executed marker 1");
```

would print the string "have just executed marker 1", followed by a newline character. The %s combination tells printf() that the second argument of the function is a pointer to a null terminated string while \n is a C convention for a 'newline' which on the Amiga gets translated to a single linefeed character.

The amiga.lib library is a linker library that uses stack-based parameter passing (unlike run-time libraries like dos and exec which expect function parameters to be provided in registers). This means that when the amiga.lib printf() function is used from assembler the function arguments have to be provided on the stack before the function is used. In short, you push the required arguments onto the stack, make the subroutine call to printf(), and then clean up the stack to effectively remove the function arguments when you've finished (this is

done by adding a suitable quantity to the stack pointer). The convention as far as parameter pushing is concerned is that if you consider the equivalent C printf() form you push from right to left, so that the format string ends up being the last item pushed onto the stack prior to the subroutine call. By the way, the amiga.lib printf() function doesn't seem to support the use of the newline \n character but the easiest way around this is to use EQU to define a linefeed character and place that in your formatting or text strings as required.

### Some Example Code

Here's a simple piece of 680x0 code that uses %s string formatting to produce the same effect as the line of C code mentioned earlier:

```
NULL EQU 0
LF EQU 10
```

```
XDEF _main
XREF _printf
```

```
_main pea textstring      push address of text string
      pea formatstring    push format string
      jsr _printf         execute library function
      addq.l #8,a7        adjust stack
      moveq.l #0,d0
      rts
```

```
formatstring dc.b '%s',LF,NULL
textstring   dc.b 'have just executed marker 1',NULL
```

This program can be assembled and run although there are a few provisos: firstly, you need to assemble it to produce linkable object code (not executable code). Secondly, you must link it not only with amiga.lib but with the standard Amiga startup code as well. Why? It's because printf() expects a valid stdout output handle to be defined and set up and this is just one of the many things that the standard startup code provides. Most startup modules expect the start of your executable code to be given a \_main label and, as you'll see from the example, a couple of XDEF/XREF directives are also needed to get things working smoothly.

It's not just text strings that you can print with printf(). With the amiga.lib version a %ld or %lx format string will let you dump the longword decimal or hexadecimal contents of registers or memory locations. In this case you just push the long word value itself onto the stack. Here's one more example that looks at longword memory location 4 and prints the hex address of the Exec library:

```
_AbsExecBase EQU 4
NULL EQU 0
LF EQU 10

XDEF _main
XREF _printf

_main move.l _AbsExecBase,a0
      move.l a0,-(a7)      push address of exec library
      pea formatstring    push format string
      jsr _printf         make library call
      addq.l #8,a7        adjust stack
      moveq.l #0,d0
      rts

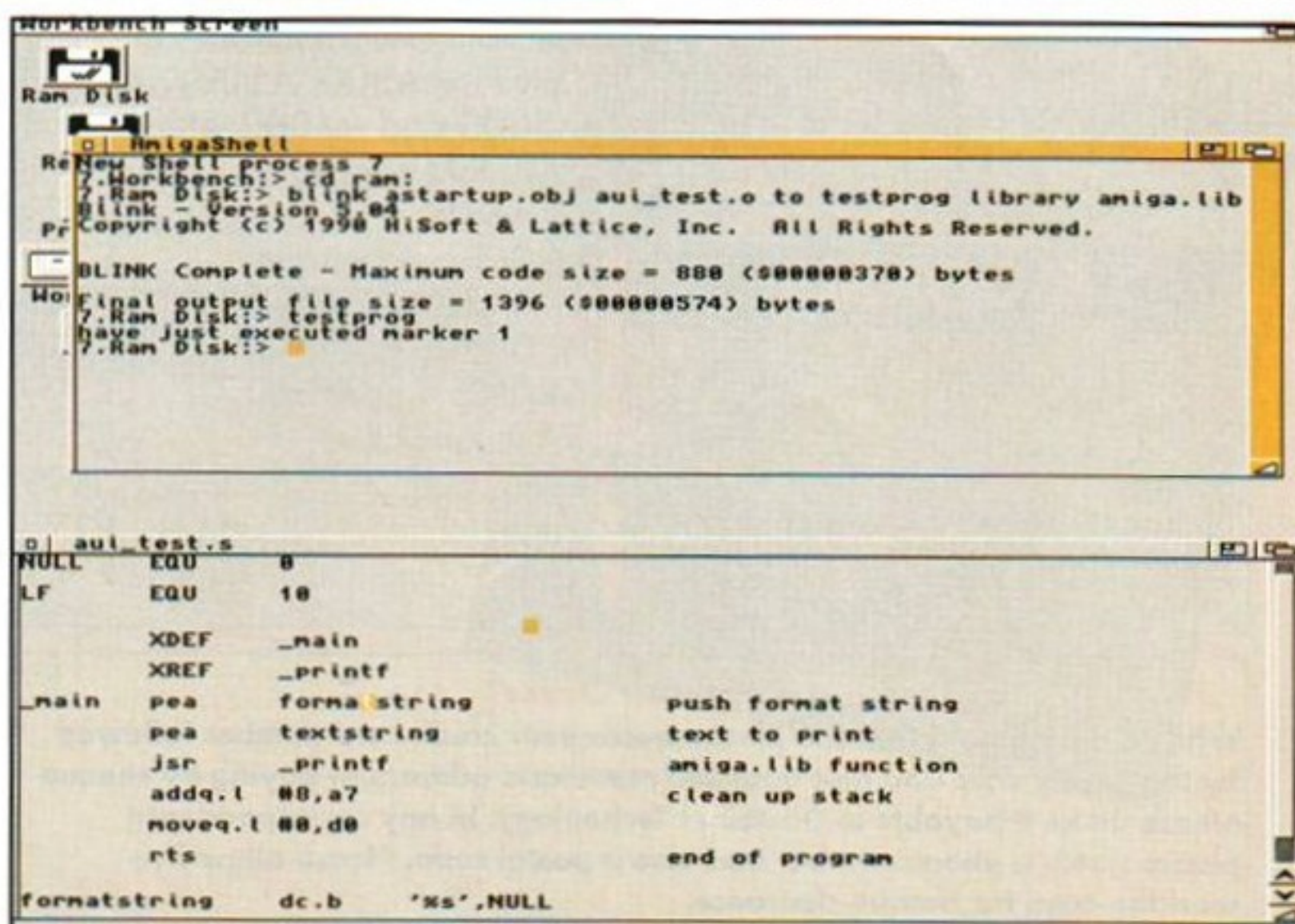
formatstring dc.b '%lx',LF,NULL
```

As you can see, surprisingly little work is needed to print markers or dump the values of important variables and memory locations. The benefit of this form of execution tracing and debugging/dumping approach is simplicity so this is an ideal method for beginners who find fully fledged symbolic debugging tools more trouble than they're worth for simple tracing and debugging operations!

There are plenty more formatting options available and you'll find descriptions of printf()'s complete capabilities in all standard C books. The amiga.lib version does have one or two quirks (such as not supporting the

printing of floating point numbers) but it is fine for the sort of use that I've suggested this month. The Includes and Autodocs RKM manual provides a full list of the formatting options available for the amiga.lib version! **AUI**

*The amiga.lib printf() function provides a handy debugging/tracing tool for the assembler coder!*





# PROGRAMMING TIPS

**A**lmost all of our example C programs use an ADT (abstract data type) to provide stack handling facilities but I realised the other day that although I have always included the associated stack header file and object code modules I've never actually provided the source code itself. Following on from the resource allocation ideas that I talked about in the November issue then I thought that it would be useful to put the complete stack module code on disk so that you can see exactly how the underlying access routines have been implemented. I've also included a file encrypt/decipher utility called Ami-Cipher which is a tool that I knocked up for private use because this is yet another example of a program which is using the same general purpose stack handling routines.

The stack module uses a list based approach making calls to `calloc()/free()` to provide dynamic memory allocation for the items being stored on the stack. Within the module the routines are based on two types of structures. A stack descriptor which contains a pointer to the first item of a linked list of stack items (NULL if stack is empty) along with a value representing the size of the objects being placed on the stack, and a `StackItem` unit used to link stored data items together.

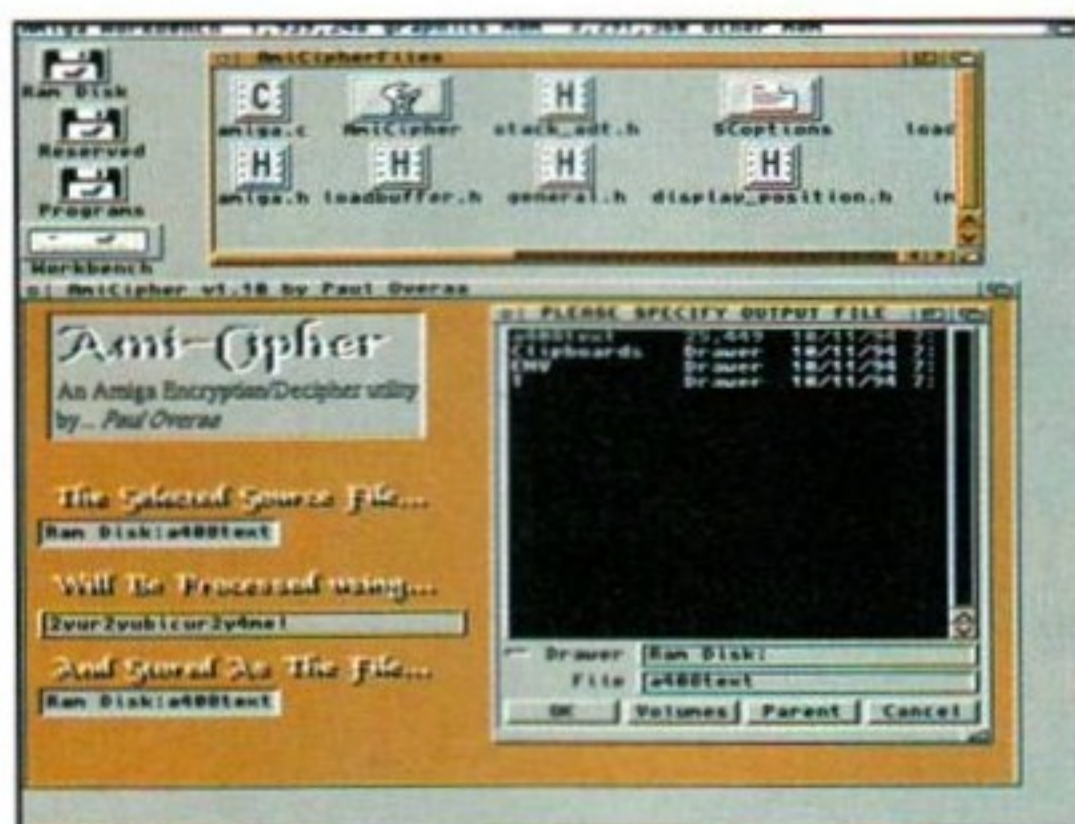
Take a look at listing 1 to see how these items are defined. The stack module uses these structures internally but the definitions are not required to be either known (nor used) by any applications program which uses the module. As far as the stack user-interface is concerned five access routines are available. `CreateStack()`, `PushStack()`, `PopStack(s)`, `KillStack()`, and `StackEmpty()`. I've discussed these routines in a number of previous issues so I won't go into detail again but if you

```
struct StackDescriptor {
    struct StackItem *FirstItem;
    UBYTE ItemSize;
};

struct StackItem {
    struct StackItem *NextItem;
    UBYTE Data[1]; /* actually
user defined amount of data */
};
```

**Listing 1:** Definitions of the structures used in the stack module code.

## This month Paul Overaa looks at a simple Workbench 2/3 file encryption utility.



*Underneath the surface this program is making a lot of use of high-level stack handling functions.*

missed that earlier material don't worry - you'll find all of these routines in this month's source code listings.

The routines incidentally have been written according to the basic jobs they have to perform and no particular trouble has been taken to maximize their efficiency. You will also see that in most routines I have used a local variable to copy and re-cast the (void \*) descriptor pointer parameter as a `StackDescriptor` pointer. Because

it avoided, continual re-casting in order to use the structure definitions this 'inefficiency' made the code that much easier to read.

### How It Works

The Ami-Cipher utility uses two program specific code modules called `main.c` and `amiga.c` along with ADT modules for controlling stack and file buffer operations.

The 'main.c' module's job is to allocate an ADT stack (see listing 3), and then make a call to the function `AmigaProg()` which, for all intents and purposes, is the workhorse part of Ami-Cipher. You can find the code for this section of the program in the `amiga.c` file.

Ami-Cipher operates like this: it allocates the resources needed, sets up the display, and then goes to sleep. When the user selects a menu item or hits a gadget Intuition sends it a mes-

```
BOOL PushStk(STACK *descriptor_p, UBYTE *data_item)
{
    BOOL error_flag=TRUE; COUNT i; struct StackItem *new_item_p;
    struct StackDescriptor *stack_descriptor_p;
    stack_descriptor_p=(struct StackDescriptor *)descriptor_p;
    if (new_item_p=(struct StackItem *)
        calloc(1, sizeof(struct StackItem *)+stack_descriptor_p->ItemSize))
    {
        new_item_p->NextItem=stack_descriptor_p->FirstItem;
        stack_descriptor_p->FirstItem=new_item_p;
        for (i=0;i<stack_descriptor_p->ItemSize;i++)
        {
            new_item_p->Data[i]=*data_item++;
        }
        error_flag=FALSE;
    }
    return(error_flag);
}
```

**Listing 2:** This is the routine used to store data on the stack.

```
main(int argc, char *argv[])
{
    UBYTE error_number=NO_ERROR;

    if(!(g_resource_stack_p=
        CreateStack(void*))) error_
        number=NO_STACK;
    else {
        error_number=AmigaProg();
        while(!PopStack(g_resource_
            _stack_p,g_function))g_function();
        KillStack(g_resource_stack_p);
    }
    return(0);
} /* Logical end of program */
```

**Listing 3:** The `main()` function from Ami-Cipher's `main.c` module.

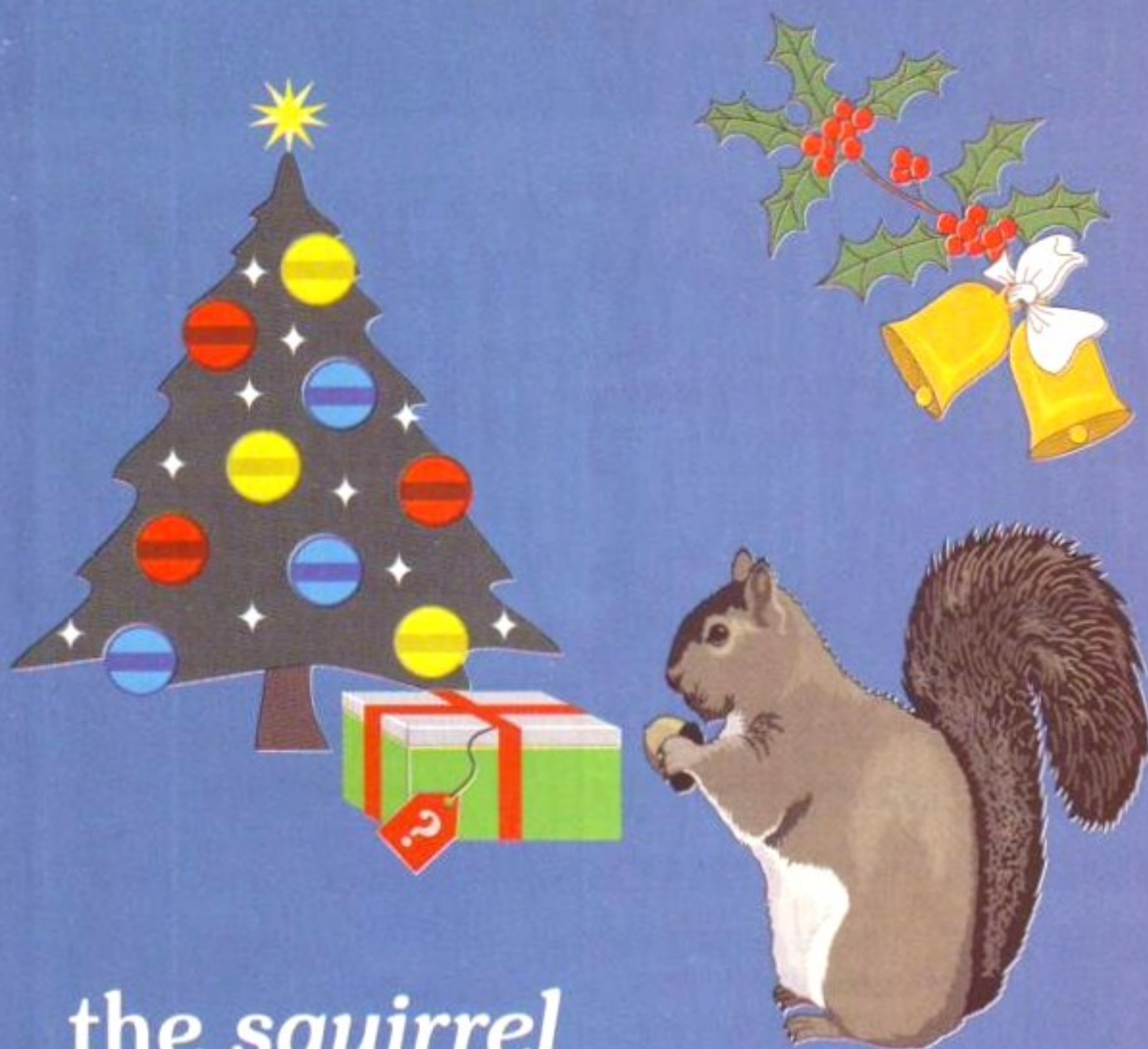
sage, the program wakes up, and the message collecting event loop dutifully calls the routine that handles the actions selected by the user. Gadget messages arrive as `IDCMP_GADGETUP` messages. Menu handling is a little more involved because there is both a Project menu and a Function menu in use.

### Switch Statement

I collect the menu number using the system `ITEMNUMBER()` macro and, on the basis of the result, execute either a `ProjectMenuHandler()` or a `FunctionMenuHandler()` routine. The former routine uses a switch statement to identify and execute the various cases (Select source file, Specify output file etc.), the latter performs just one job - the encryption/decipher operation.

There hasn't been room to put all of the AmiCipher source files on this month's cover disk but you will find the utility itself (plus some docs) along with the source for my stack module. You'll also find `main.c` and `amiga.c`, the two modules I mentioned earlier - these should enable you to see the overall structure of the program. Among other things, the utility uses the Gadtools and ASL libraries. This means that this month's example will NOT run under Workbench 1.3! **AUI**





the squirrel  
can suss it ... can you?

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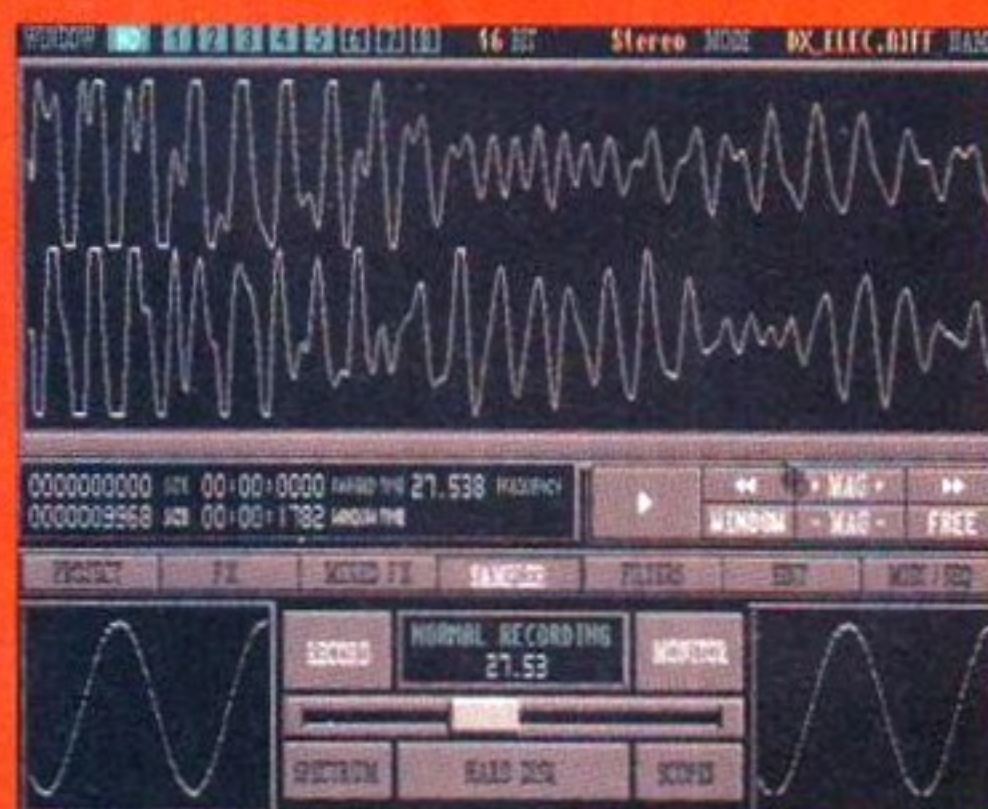
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A screenshot of the powerful sample editing suite contained within Aura

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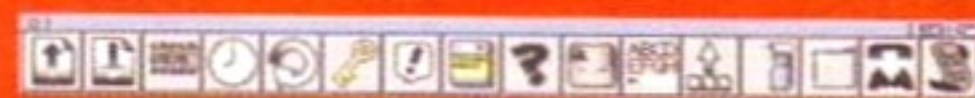
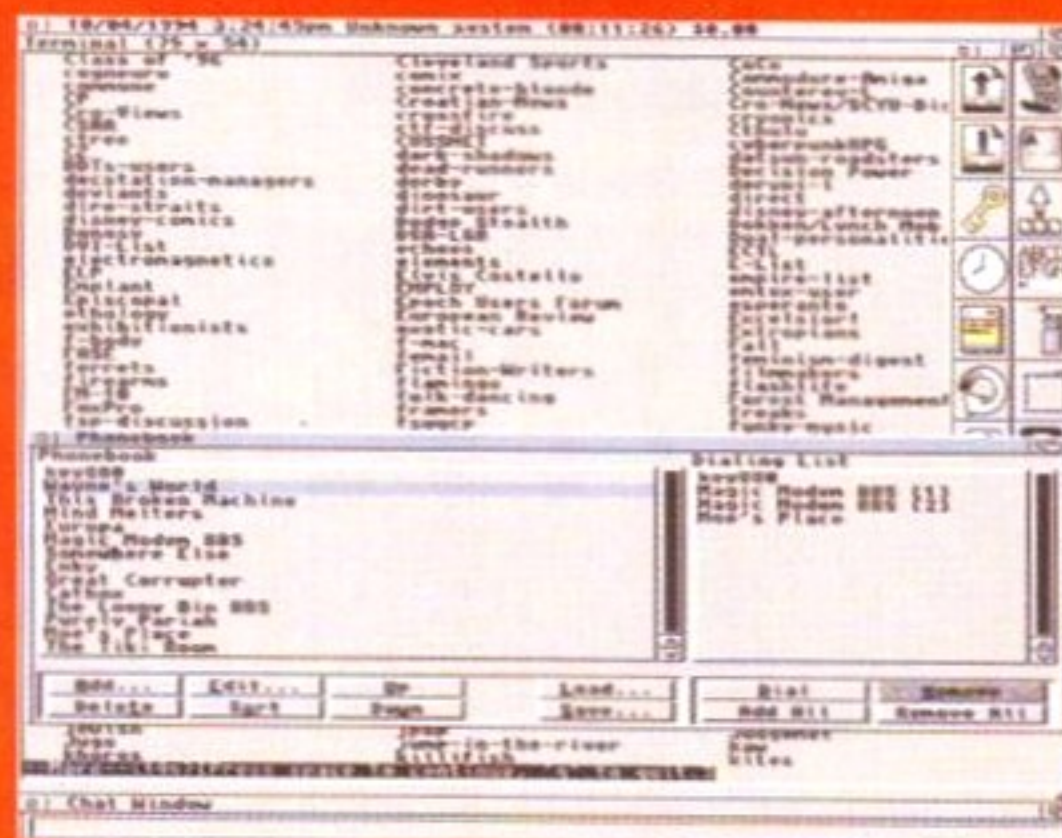


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the Termite Button Bar

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Termite will run on any Amiga with 1 Mb or more of memory and Kickstart 2.04 or greater. A Hayes compatible modem is required and a hard drive or a second floppy drive is recommended.





# Top Gear 2

**Gremlin £29.99 1 Meg**

Having decided that their image needs updating, Gremlin have gone for a whole new look, starting with a change of logo and name. They are now to be called Gremlin Images. Cool. It's a shame that they haven't changed their policy on games though. What is it with Gremlin and racing games, particularly racing games that are more or less the same. First there was Lotus 1, 2 and 3, then the really lack lustre Nigel Mansell's World Championship and now Top Gear 2 which I am sure follows Top Gear 1, although quite when that came out escapes me.

Anyway, seemingly sequel

crazy, Gremlin are doing themselves no favours here. Checking out Lotus once again, I found it had everything I could possibly want in a racing game that used a chase style display. It also had some decent computer controlled cars, great tracks and enough two player thrills to keep me more than satisfied. So I ask the question, why more of the same?

If Lotus had never been released then undoubtedly Top Gear 2 would be up there with Crazy Cars and Road Rash because it does have a lot going for it. A well-honed 3D environment, 64 tracks and weather worse than Minneapolis in winter. Like Crazy Cars, there's a shop loaded with stuff to use on your car, all you need is cash and you get that from winning lots of races.

The circuits themselves are about as close to the real thing as Hockenheim is to The Derby, but they are a good test of driving skill, with the later levels containing a mix of vicious twists and hairpin bends. There are also bits to collect on the track like pick ups and nitro which are great performance boosters. Top Gear does have advantages over the



Yeah! Racing along, dude.

Lotus games, you can crash and spin off the track, something that was impossible before, you just slowed down when you hit something. But there is a frustrating element to this. There you are twisting and turning desperately trying to avoid hitting barriers, while the computer controlled cars merrily go straight through the obstacles. What is the point of slowing down to take a bend strewn with stuff on the track, only to be overtaken by a CPU car using nitro overdrive and steering straight through as if the obstacles weren't there? Oh well.

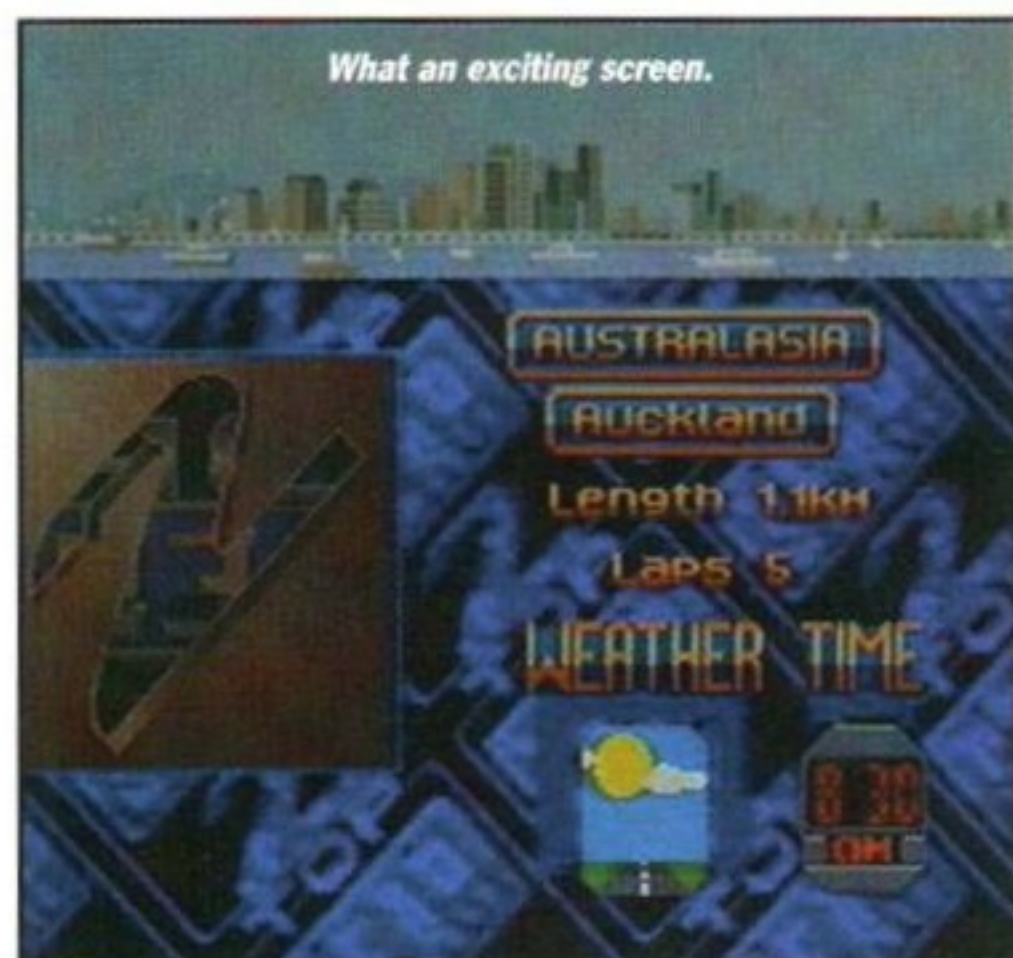
The game also features a routine to reverse the car, this is useful for going back and picking up those missed nitros, for instance.

So apart from a few changes

and some super-intelligent conversation between drivers, shown to you as speech bubbles, using such highbrow prose as 'Move Over' or 'Yo Dude', there isn't a lot to choose between Lotus and Top Gear. The difference is that you bought Lotus nearly two years ago.

## VERDICT

<b>Graphics:</b>	<b>70%</b>
<b>Sound:</b>	<b>70%</b>
<b>Gameplay:</b>	<b>67%</b>
<b>Overall:</b>	<b>70%</b>



What an exciting screen.

# DRAGONSTONE

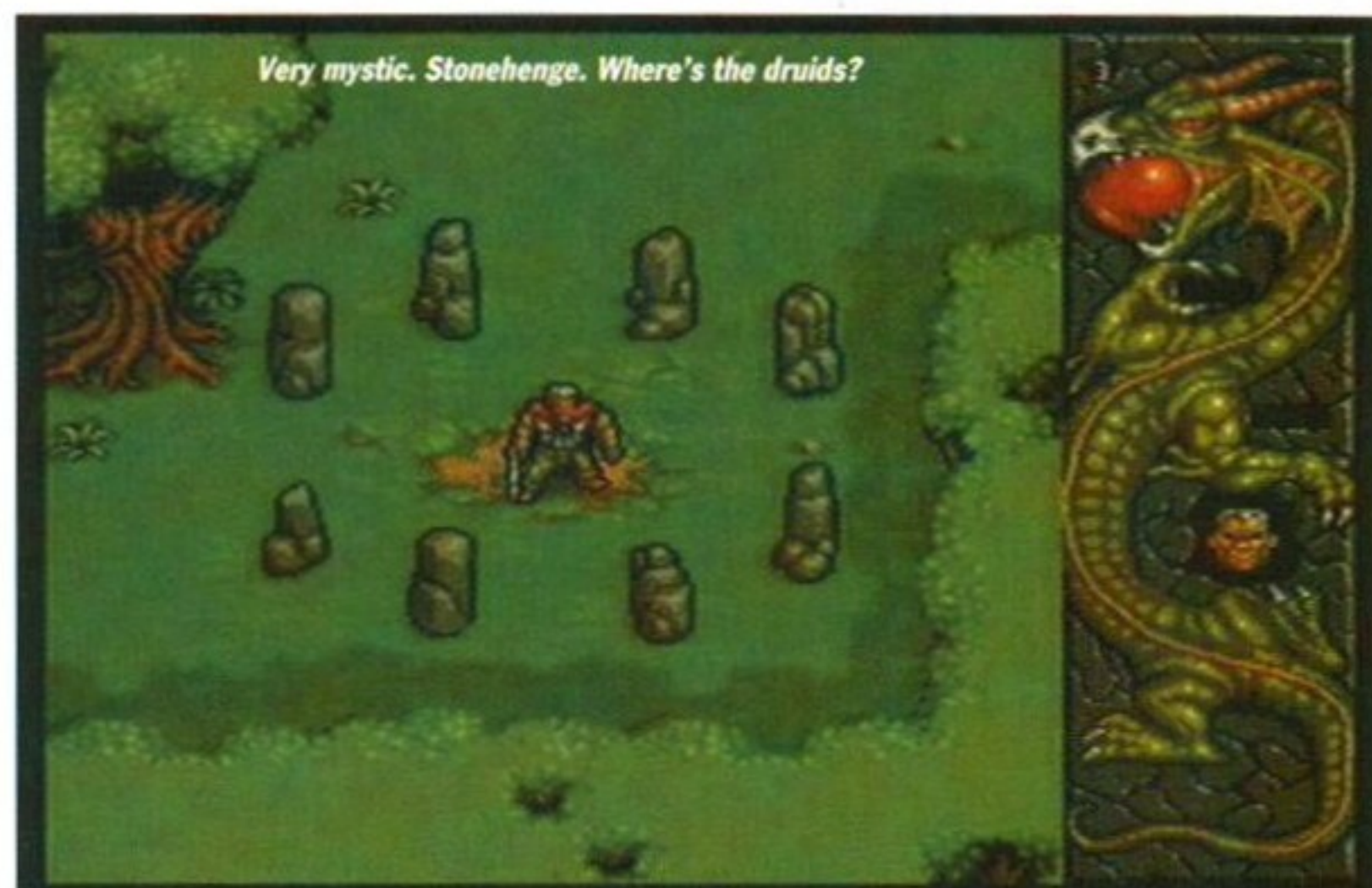
**Core Design £24.95 1 Meg**

Remember Darkmere, the title that really got Core onto the map? Lots of moody lighting and plenty of slashing and slaying. Dragonstone is more of the same, only this time around it supplies a demand that up until now has been left wanting. Many Amiga owners have been looking with undisguised envy at Nintendo players who have a copy of Zelda, a best selling top down view adventure that has captured the imagination of hardened adventurers and novices alike. Now Dragonstone can redress the balance, as it's without question, a mix of Zelda and Bitmap's Chaos Engine.

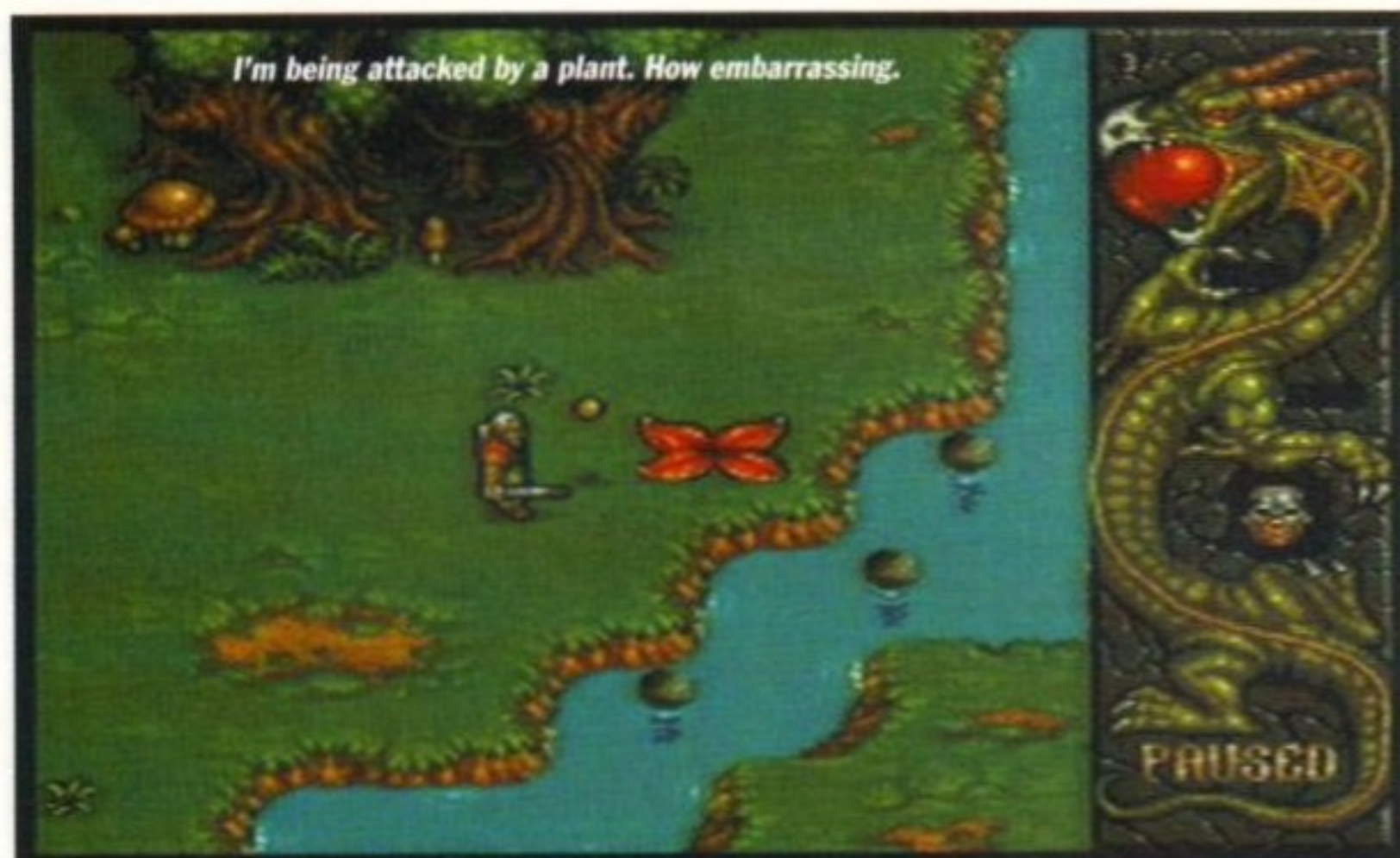
It is a tale of one heroic individual on the trail of a deadly dragon

whose demise will free his homeland for ever. Yeah, yeah, but what about the game, huh? Using the top down view, you fight your way through a scrolling landscape, not too dissimilar from Cannon Fodder, swinging your sword at monsters a-plenty and collecting objects that will serve very useful purposes in solving puzzles later. The game seems to take conservation very lightly as you go on a slashing spree killing plants that spit out deadly gobs of goo at you whenever you venture near, while various near-darthal creatures come at you from all angles.

It's not all slashing and slaying though, because wrapped in the middle of all this carnage are places where







you need to interact with the locals and try out the usual D&D Examine, Use and Talk commands. It is through this scenario that you begin to amass the knowledge and power that takes you to new levels and ultimately face to face with old Firebreath himself.

Being a seasoned adventurer myself, and having tackled many of the heavyweight Gothic computer adventures like Ultima, Ishar and Kings Quest, it makes a pleasant change to experience one like this which is instantly playable, has no complex control structures but still gives you a feeling of satisfying role playing.

Dragonstone will not win any prizes for state of the art 3D first per-

son texture mapped polygon CD enhanced shadow rendered virtual reality content, but it will provide some entertaining hours in a role playing environment that will not break the bank.

## VERDICT

<b>Graphics:</b>	<b>76%</b>
<b>Sound:</b>	<b>75%</b>
<b>Gameplay:</b>	<b>81%</b>
<b>Overall:</b>	<b>75%</b>

# RUFF 'N' TUMBLE

**Renegade £25.99 1 Meg**

**W**hen software publishers start shouting about a game being the 'best platform game ever', you know there is one of two things happening here. Either the game is so mediocre that it needs some decent hype to get sales moving, or there is a genuine marketing angle behind an impressive product. Renegade, by their track record, have not been given to hysterical hype, so one should assume that Ruff 'n' Tumble is pretty hot stuff.

Of course, platform games by the very nature of their design have a tendency to be samey and only the very unusual games stand out from the rest. The best seem to have a mix of puzzles and platforms, like Humans or Lemmings or platforms and wholesale slaughter like Crash Dummies.

Ruff IS a good game, in fact, I would push the boat out a bit further and say that it probably has the makings of a bench mark platformer. The impressive programming from Jason Perkins and Robin Levy have created almost the perfect balance between platform and shoot 'em up.

The hero character is Ruff, (no,



*Blasting action, Renegade style.*

not a dog, but a little kid) who decides to play marbles near a rabbit warren, like you do. His marble runs down a tunnel and before he can shout 'gobstopper', he is transported to another world to do battle with the evil Dr Destiny and his Tinhead army.

Ruff finds himself in this world, however, with more than a sack of marbles to fight with, he has a veritable arsenal of weapons to collect, from laser rifles to flame throwers the latter which despatch his foes like chips in a fryer!! The game is spread out over



*A huge owl gets a pasting from our Ruff.*

four worlds, Forest, Caves, Factory and Dr Destiny's Castle, with each world made up of four huge levels. The aim of the game is always the same though, to collect loads of different coloured marbles, enough in fact to open the exit to the next level.

Of course, as is the trendy thing to do nowadays, Ruff has to fight an end of level giant sprite, and this is no mean feat by any standards. Indeed, you will only be successful if you've got the right weapon with you.

There are also coins scattered around the levels which give you an extra life if you collect a hundred and a

few other collectable items which boost your score. Each level is designed extremely well, with no hidden jumps to make, just platforms in a logical building pattern. This ensures that you can concentrate on doing your business without getting killed by going down an unseen trap. There even clues as to which direction you should take, less frustration this way, unless of course you love the idea of wandering around zapping monsters but getting nowhere.

Ruff 'n' Tumble is an excellent game, which shows the genuine effort that has gone into its design, and all credit to Renegade for their bullish sales strategy, because the game deserves it.

*Does this remind anyone else of a Bitmap game?*



*If you look that weird, you deserve to get shot.*



## VERDICT

<b>Graphics:</b>	<b>87%</b>
<b>Sound:</b>	<b>87%</b>
<b>Gameplay:</b>	<b>89%</b>
<b>Overall:</b>	<b>90%</b>



# Robinsons Requiem

**Silmarils £29.99 1 Meg**

**T**his has been so long coming, over a year in fact, and that means programming problems in anybody's book. How many times have we seen games announced in a fanfare of publicity, with the publishers promising state of the art design, only to be told again and again that there are a few 'delays'? This has normally meant that the programmers have had huge troubles getting the game to an acceptable release quality, or a complete rewrite has had to be undertaken due to the original team giving up, or the game just will not fit into the available memory.

Publishers put intense pressure on the coding team, corners are cut, and eventually what comes out is often a pale shadow of what should have been. Plenty of examples of this can be tabled at length, but what's the point? The public though surely has a right to know if the game that was first announced is the same game that is eventually released. ROBINSONS has at last come out, but what about RISE OF THE ROBOTS? That has been on the starting blocks even longer.

ROBINSONS REQUIEM was heralded by Silmarils as the 'adventure to end all others', with a dra-

matic plot and gameplay of outstanding quality. The plot is dramatic. You are left in the wilderness to fend for yourself, a test of endurance and survival, even down to amputating your own limbs to survive!!

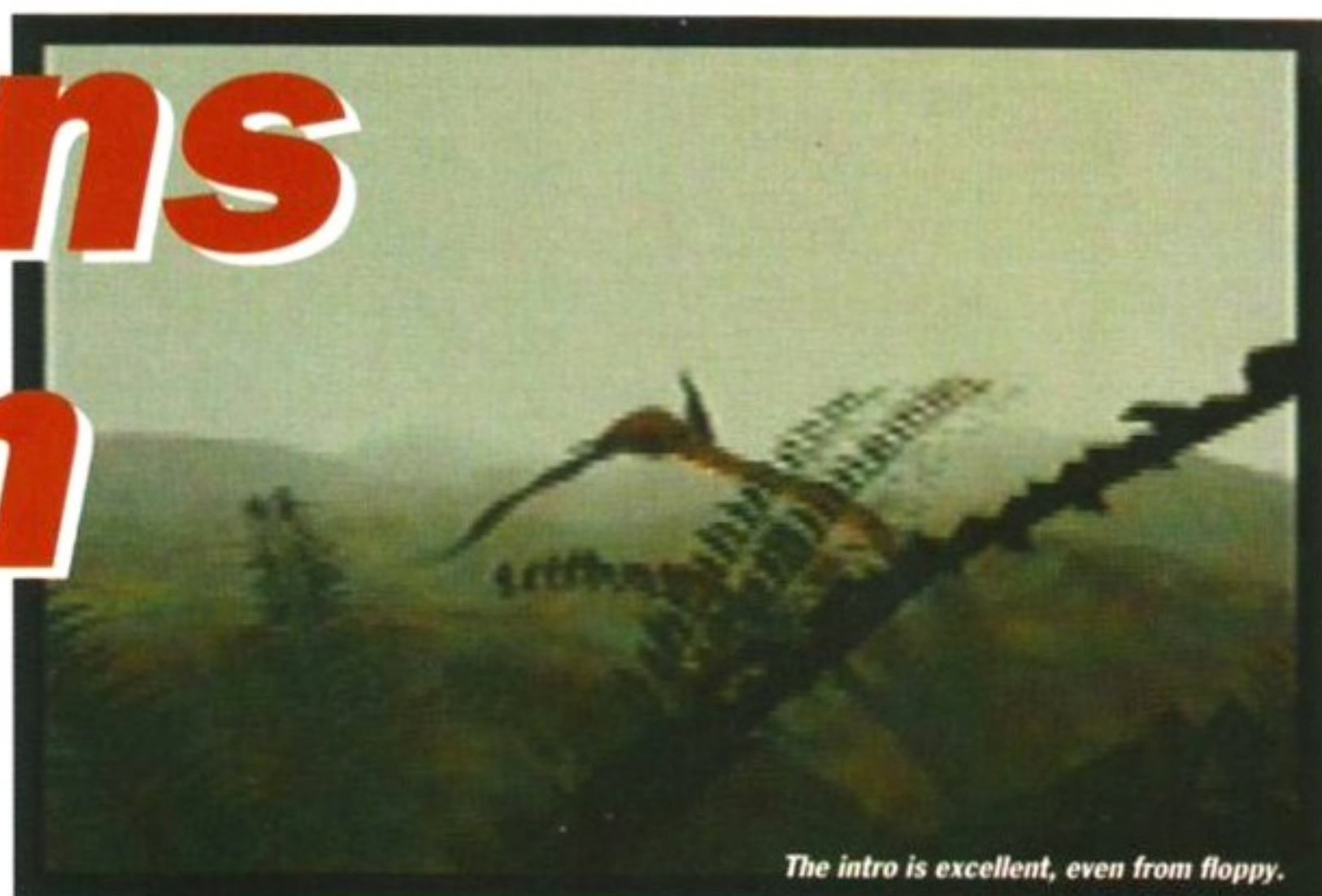
The finished Amiga product while still an interesting game sadly is not as impressive as the PC version. Instead of the glorious texture mapped voxel landscaping, we have far simpler polygons. Probably one of the short cuts I mentioned earlier. Still the game is playable and the 3D effect so well produced in Silmarils other best seller Ishar is very much in evidence here.

This game is all about staying alive. Marooned on an inhospitable planet with nothing more than basic clothing and a medical computer, which

*And it all starts like this.*



*Someone went wild with their renderer.*



*The intro is excellent, even from floppy.*

monitors your general well-being and gives you info on how much food or water you need, or offers you an image of yourself showing any fractures or internal bleeding etc. Starting out, you need to get some medical supplies pretty quickly, and exploring the wreckage of your ship should unearth something useful.

*I've found lots of goodies.*



After that you need to find a weapon, maybe some matches, a water bottle maybe? The only way to do this is to start walking and hope you'll run into some other live creature who has some of these basic things on them. Of course, you'll have to kill them to get the items, and all you've got to fight with are your hands.

Once you have these basics the game begins to move away from your standard adventure format. One example is water. You find a small lake, and you have a bottle, so fill the bottle with water. But is it drinkable? I think not. Purifying it is a necessity, so you need to light a fire with the matches, put the bottle in the flames and boil the water to make it safe to drink.

Walking on you come to some fruit trees, which are not only a source of food, but their leaves could make a pretty handy hat, if you use the needle and thread that is in the medi kit.

From these examples, you can see that the game is not about finding



*I'm on someone else's patch and they don't like it.*

and using objects in standard adventure fashion, it's about combining objects you find with other objects to fashion new ones and extend your life for a few more hours. The subject matter is truly original, and a ground breaker.

The drawback is that apart from the good first person view, the polygon graphics are unrealistic, and the screen update is painfully slow, even when running on reduced screen and low detail (another problem I talked about earlier).

But there is enough interest sparked by the plot to keep you at it. Your brain will be buzzing trying to work out how to use this with that to get those, and so on.

Challenge Anneka was never as daunting as this task I can assure you. If you want a game that will probably lock you away for hours then this is it, although with 6 disks it's slow, and graphically not a patch on the PC version.

## VERDICT

<b>Graphics:</b>	<b>67%</b>
<b>Sound:</b>	<b>73%</b>
<b>Gameplay:</b>	<b>89%</b>
<b>Overall:</b>	<b>85%</b>



*Someone went wild with their renderer.*



# F-117A

**Microprose A1200/A500 £16.99**

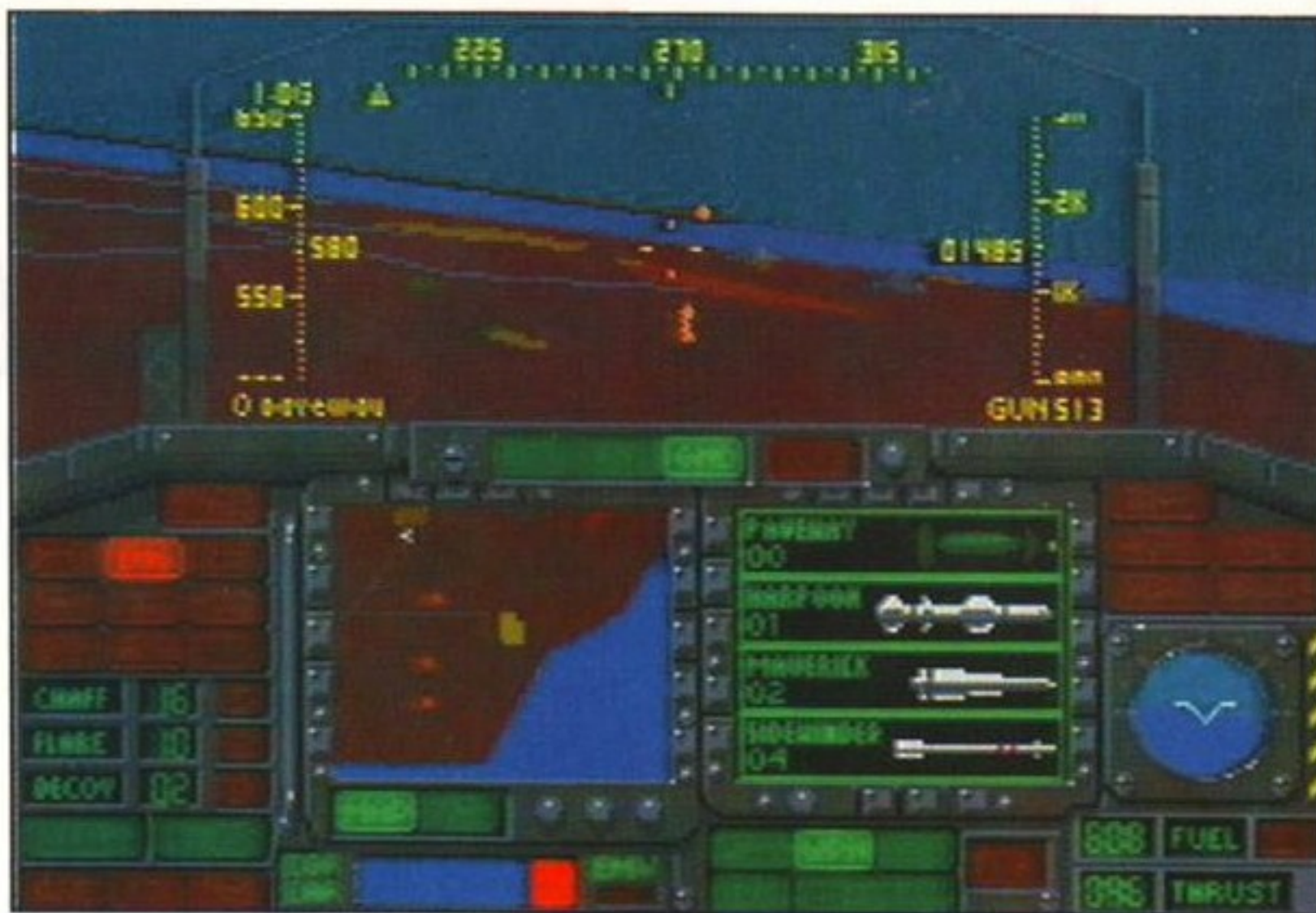
**T**his excellent flight simulation burst onto the Amiga games scene with great fanfare many years ago. It's back, looking just as good, and with enough detail and gameplay to keep you entertained for ages. The infamous Stealth bomber ain't much of a flyer, but she's packed to the gills with nifty night-time fighting equipment. You can choose to fly the original, or Microprose's own souped-up version.

Either way, the realism of the weapons and environment draw the player into the game. As you speed silently over the landscape, escaping radar detection, you can almost feel the masses sleeping in the towns below you, blissfully unaware of your clandestine mission. City lights and buildings rush past. Stars twinkle over the horizon. Your detectors sense military activity in the distance. You

prime your weapons for firing...

The weapons themselves span an impressive array of realistic modern bombs and missiles which do all sorts of clever tricks in order to destroy their target. But if you thought modern aerial combat was only a matter of letting battle computers do the work, the realistic F-117A will make you think again. The missions are incredibly varied, and often complex - involving multiple targets, way-stations and active enemies.

There are three levels of conflict context in which to fly your missions. At the Cold War level, your missions must be undetected, and usually involve surgically removing a specific target. The Limited War level opens up most military targets as fair game, but you have to avoid hitting civilians. At the Conventional War level you to go all out in your destruction.



The missions themselves can be primarily air-to-air, with a secondary ground target, or straight ground target objectives. For the softies among us, pure training missions are also available where you cannot be hurt.

When first released F-117A was a game which highly rewarded the strenuous effort required to unlock its vast potential. For the budget price, flight simulation fans cannot go wrong.

## VERDICT

<b>Graphics:</b>	<b>77%</b>
<b>Sound:</b>	<b>60%</b>
<b>Gameplay:</b>	<b>88%</b>
<b>Overall:</b>	<b>75%</b>

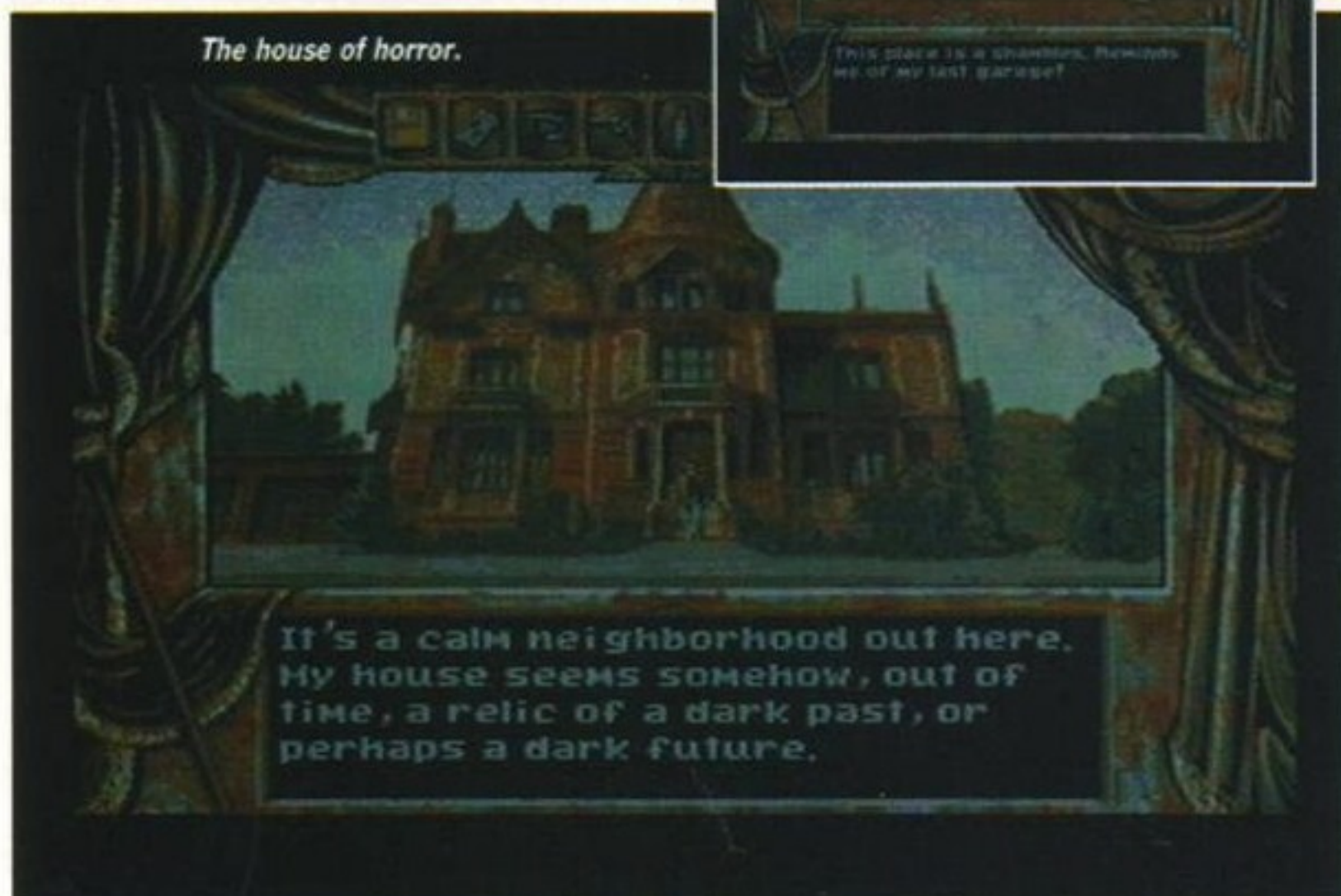
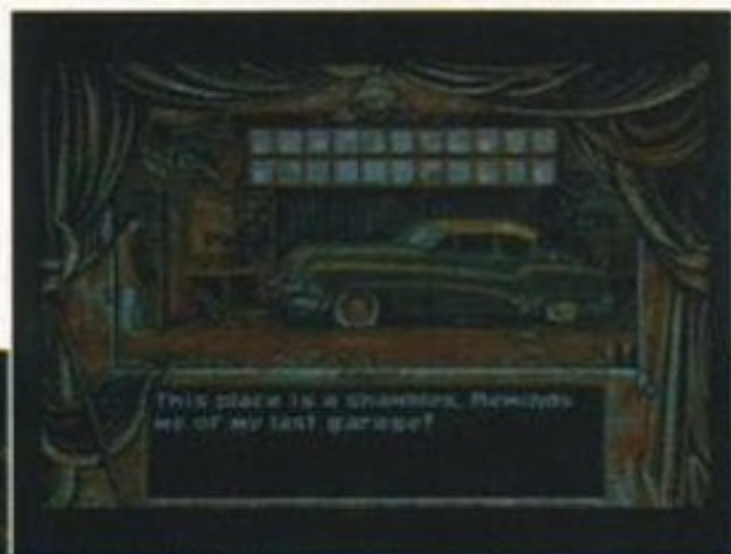
# DARKSEED

**H**aven't you always wanted to relive your nightmares in a computer game? No? Well, give Darkseed a go anyway.

Darkseed takes all the horror and malevolent evil of your worst nightmare, and turns it into a graphic adventure game. It's all the fault of that warped Swiss guy, H.R. Giger, the man who inspired the terrifying images of the Alien movies. He's now gone and inspired Darkseed.

**Cyberdreams CD32 £29.99**

As far as I can tell, the inspiration bit means all Giger has actually done is draw up a bit of



"Biomechanical" science-fiction artwork and then spend the proceeds. Giger obviously does a very good line in "inspiring" services.

The people who used his images to make Darkseed have created a chilling piece of software. The eerie house, lonely grounds and mysterious township which make up the world of Darkseed ooze a constant atmosphere of foreboding. It's hard not to feel overwhelmed by the lurking threat of evil that pervades every scene. Something is watching and waiting.

Darkseed first appeared on floppy disk, and has been converted almost unchanged to CD. The power of CD means the huge memory hungry graphics arrive more speedily than the floppy disk to your screen. Although the gaps are shorter, it can still be irritating to wait as you move between rooms. Speech is about the only new element in the CD version - giving an extra dimension of realism, but it's a dubious benefit. You wake up inside the old Victorian mansion you have bought and realise something is wrong, very wrong. Your headache probably

stems from the alien fetus injected into your brain in the opening sequences - but an aspirin soon eases the pain. If nightmares were so easy!

Either the aspirin wears off or the alien decides it's time to feed - because after a few days you die horribly. You'd better solve the mystery in quick smart time..

Despite its original atmosphere, Darkseed follows a typical adventure game style. You have to examine the environment, acquire objects and find clues to the whole puzzle. One of the problems with Darkseed is that some of the clues only appear in parts of the house at certain times. Miss it and you'll go through the whole game without a chance of success.

Such problems dwindle in significance because you are easily sucked into the whole Darkseed nightmare.

You may fail at first, but you'll be back for more - and this time you might even turn the lights off!

## VERDICT

<b>Graphics:</b>	<b>84%</b>
<b>Sound:</b>	<b>80%</b>
<b>Gameplay:</b>	<b>78%</b>
<b>Overall:</b>	<b>82%</b>



# Litil Divil

**Gremlin CD32 £29.99**

**L**itil Divil, Tasmanian Devil, what's with all these cartoon devil characters? You can't move down the High Street without smacking face-first into cartoon "Devil" merchandise. And Gremlin are getting into the act with the "Litil Divil" game - a cartoon-like romp through a dungeon setting.

The packaging shows all the signs of intelligent and inventive marketing. Never mind the game - it's the image that counts. You get a mammoth colour poster, a humorous "News of the Underworld" newspaper and lots of graph paper to note down your path through the maze.

I guess underground is the most appropriate place for a devil. But as you guide Litil Divil through the



*They've gotta tell you what the game's called.*

catacombs he finds more evil characters than himself.

According to "The News of the Underworld", Mutt Divil, aged 227, volunteered for an impossible mission to find a pizza.

Mutt's own father is reported as having absolutely no confidence in his son to find the pizza successfully in the 24,000 year old labyrinth. "He's always been a coward and I've every confidence we'll never see him again" he said.

The game swells with lush movie-like orchestral music, matched by smooth, colourful animation. It's gorgeous to behold. Unfortunately the gameplay is not up to the admirable images. The promotional blurb runs "...you think YOU had a bad day!". Well you might be darn sure you DID have a bad day after buying this game.

If you fork out the hard-earned readies for Litil Divil, you may well make the large effort required to get your money's worth. You'll turn the sound up loud and try to laugh as Litil Divil stumbles his unfortunate way through the labyrinth.

Your humble reviewer had no such incentive. Nevertheless, I gave it my best shot and took the ol' Divil through his paces.

The animation is the most redeeming feature. Playing the game is a little like controlling a cartoon. Imagine "Dragon's Lair" with less dramatic action but with much more control.

Like "Dragon's Lair" the small animation bits which are out of your control, such as when you come a cropper, are marvellous to watch. They are very skillfully done.



*Stamp the spiders and see them squelch.*

The game itself is reasonably well targeted at a younger audience. Through practice and persistence they will learn how to survive their way through the maze.

You can wander for ages through the corridors looking for golden doors, behind which are rooms containing puzzles for the Divil to solve. Some rooms have no point whatsoever apart from an opportunity to get yourself killed.

Along with small holes in the floor and occasional floor spikes, it all seems like a poor attempt to spice up a poor game.

Gremlin have pushed this one for all it's worth - with a lot of publicity and promotion. If you have been intrigued enough by the marketing to consider buying Litil Divil, then play the game in the store before stumping up your cash, just to be sure you know what you're getting.



*Have stick, will hit.*



*Yow! I've just been electrocuted by a puddle.*

There is no doubt that Litil Divil looks great. It's very well crafted, but someone forgot to make it worthwhile to play. I am always suspicious of games that put annoying little obstacles in your path simply to break the monotony.

As you stroll down the corridors of Litil Divil, there are small barriers springing out from the side walls, which make you sidestep momentarily before continuing onwards. What's the point?

## VERDICT

<b>Graphics:</b>	<b>76%</b>
<b>Sound:</b>	<b>75%</b>
<b>Gameplay:</b>	<b>81%</b>
<b>Overall:</b>	<b>75%</b>



# Dogfight

**Microprose A1200/A500 £16.99**

**W**e reviewed Dogfight a short while ago, but it's out again as a budget title, which could make it a better buy. We thought we'd take another look.

Microprose hit upon a great concept with Dogfight. Why not contain within one game, the ability to fly and fight in a variety of military planes throughout modern history?

Dogfight, re-released by Microprose at a budget price, allows you to fight single duels or fly a series

of whole missions in the obvious military era - WWI, WWII, Korea, Vietnam, Falklands and Syria. Within one game you have twelve different aeroplanes - a feast of possibilities.

Dogfight though shows why the idea of squeezing so many planes into one game is not as great as it first appears. You might think that Dogfight saves you from having to buy a collection of separate flight simulators, but what you gain in quantity you lose in quality.

The precise detail which envelops other flight simulators in a believable self-contained environment so you feel as if you are really there, that's what is missing from Dogfight. If you can accept that quibble then the game opens up into a lot of fun.

The action is relatively smooth and the options for play are varied. All the required controls over factors such as detail, blindspots, game-start positioning and ease-of-landing are there. Absent however are vital choices over weapons and supply.

The game is easy to get into straight away. There is even a "Quick-fight" option for launching yourself into an immediate duel. The mission section is acceptable - with a reasonable collection of objectives, and worthy opponents.

The historic scope of Dogfight immediately raises the possibility of running fighters of different periods against one another.

Your mind fairly thrills at the logical conclusion - go head-to-head with a WWI bi-plane against a modern jet fighter.

Dogfight allows you to do exactly this. You can eagerly embark on



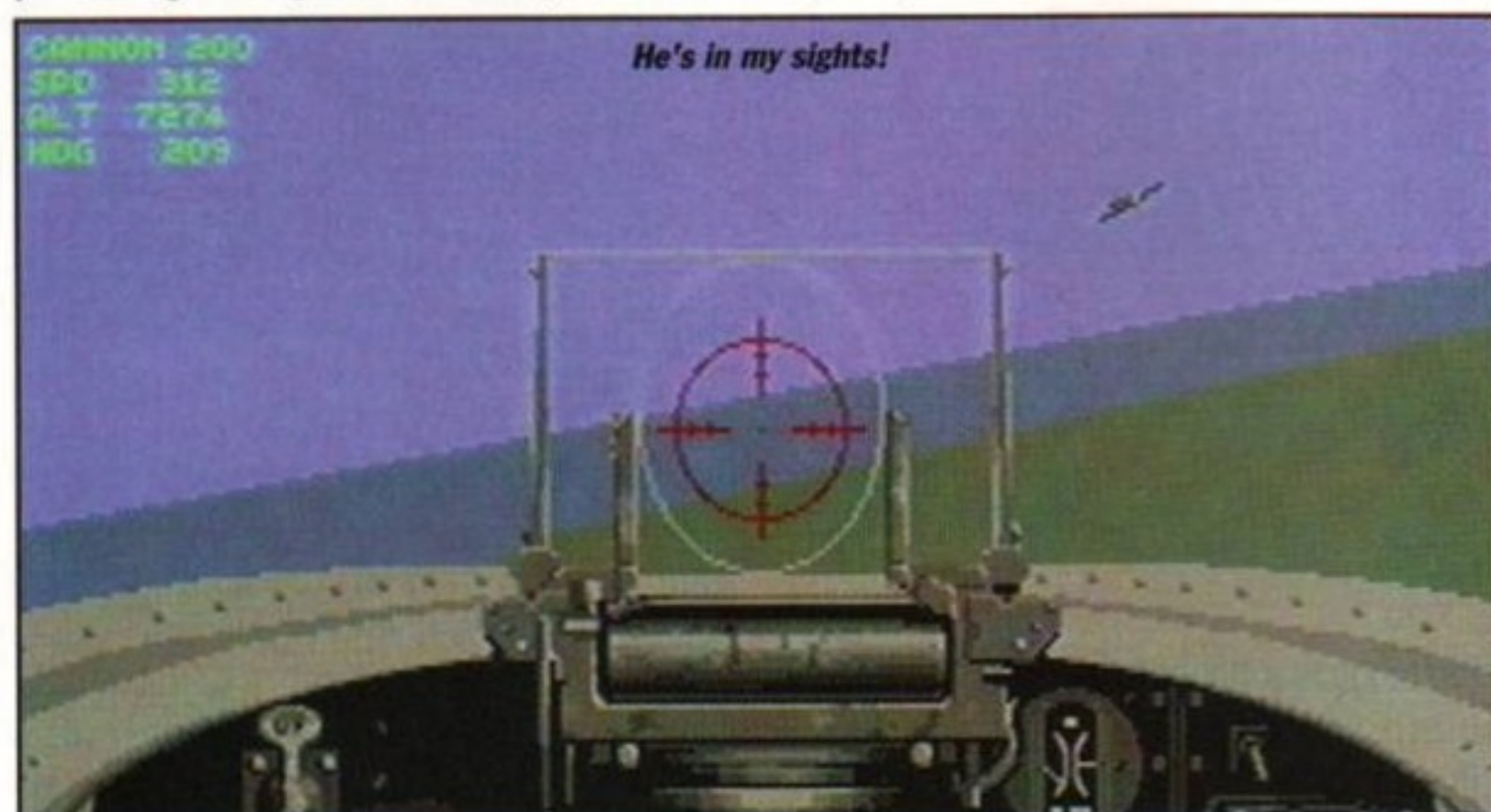
80 years of air warfare in one game

a killing spree against hapless WWI Sopwith Camels with an F16. However, the initial thrill soon wears off as your F16 roars past the Sopwiths, with their guns vainly going phut-phut at the place you were five seconds ago.

Dogfight spans 80 years of aerial warfare admirably, but not thoroughly. Even though it now looks a little old, it is worth investigation at its budget price.

## VERDICT

<b>Graphics:</b>	<b>65%</b>
<b>Sound:</b>	<b>60%</b>
<b>Gameplay:</b>	<b>70%</b>
<b>Overall:</b>	<b>66%</b>



# Super Stardust

**Team 17 A1200 £29.99**

**T**EAM 17 have given us some pretty hot games over the years, but this ain't one of them. There's no doubt that the game has pedigree. Asteroids, upon which it is based, was a classic arcade game with a simplicity which belied its intensely addictive gameplay. The way those asteroids slowly and gratifyingly exploded has remained permanently etched in my mind.

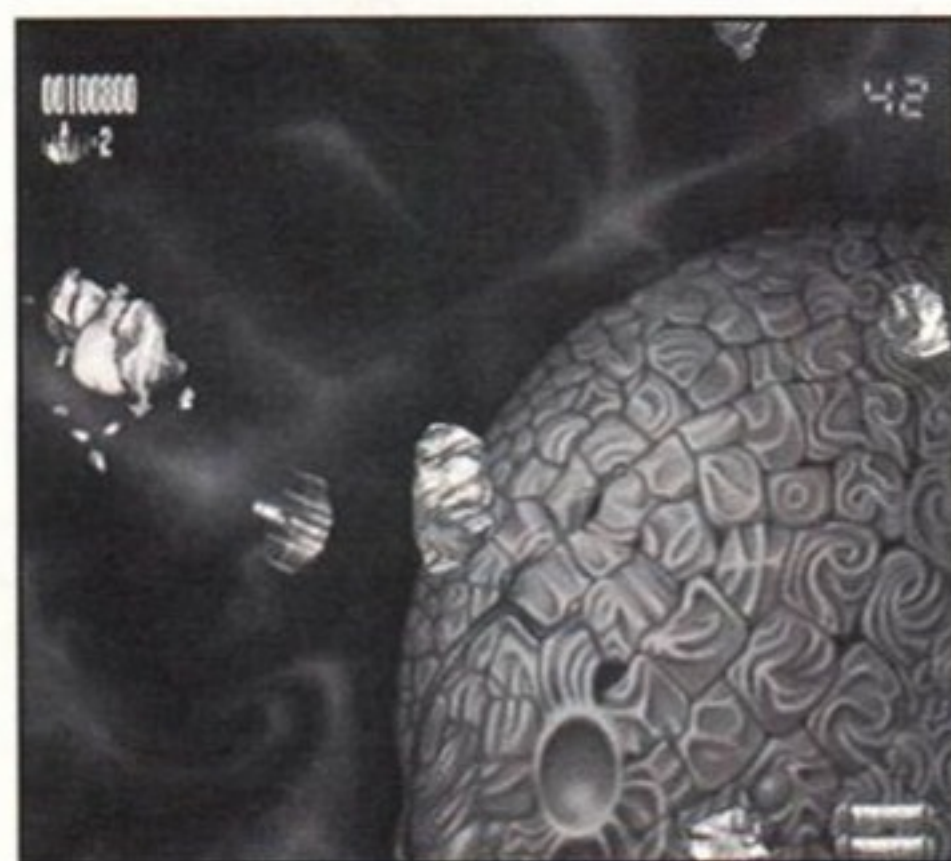
Asteroids has obviously stayed in the minds of many others, since it has been immensely popular in various PD reincarnations. Now, around fifteen years later, Team 17 has had a go at capturing the addictive style in an updated version.

Team 17 are rightly proud of gaining this beauty of programming from Finland's Bloodhouse coding team. Their press release shouts out the hype; thirty levels of 256-colour action, 12-channel music and hordes of 3-D ray-traced enemies. The press release then ends with a false attempt at modesty, saying "Super Stardust -

It's rather good". That final description may actually be more apt than Team 17 intended. Stardust is breathtaking, and then again, it isn't.

The graphics are undoubtedly wondrous. They are much improved from the original Asteroids game, although that wasn't hard. Stardust's

*Stardust - It's rather good.*



ray-traced images fairly gob-smack you with their blinding quality. Your screen is aglow with colours, speed and surging sound FX.

For all the improvements on the original Asteroids, it's weird that the gigantic silver-blue boulders spinning towards you in Stardust lack the menacing quality of the simple phosphorous glow of the old polygon asteroids. Actually the asteroids are just a pain in the butt. They make you really mad. You just want to blast the stuffing out of them. Hey, maybe the game isn't so bad after all.

The player has superb control over the Panther PX-2 ship which finds itself in the midst of an asteroid field. As in the original, the screen scrolls. Propel yourself out of the bottom right corner and you'll slide back into the game area from top left.

Unsurprisingly, you can

equip yourself as you go with the usual power-ups, shields, extra weapons and such like. You'll need the control and the power-ups - the game can be fiendishly hard.

The wow factor of Stardust is undoubted. It has been created to look impressive, and it is. The graphics, despite their splendour, are too chunky. It's all too big, leaving little space for a decent game environment. This tightness is what makes the game challengingly difficult.

In the end, even with the splendid additional graphics and levels, the game still lacks a vital spark. It's tough, so if you love a challenging attempt to blast stuff, then it's a great game. If want a little variety with your killing spree, Super Stardust may not be enough.

## VERDICT

<b>Graphics:</b>	<b>94%</b>
<b>Sound:</b>	<b>90%</b>
<b>Gameplay:</b>	<b>80%</b>
<b>Overall:</b>	<b>88%</b>



# The Amiga Answer Machine...

## PROG



Dear AUI,  
Please help me I've just got a diploma in C programming and I can't suss out how to use graphics at all (that was not covered in the course). The problem I've got is I'm using AUI SuperDisk32 PPaint to create menu screens and saving them out as source code, but that's as far as it goes after that I'm stumped. I even used various utilities and the college printer/paper to print out dices on disk docs (about half a reams worth) and studied them studiously. Not a sausage, not a clue. Now I don't claim to be an expert in C but I know enough to get along until I learn graphics (essential on the Amiga don't you think) I'm going to use Switch(); and System(); for the menu part and want a piccie in the background so it doesn't disappear the second a key is pressed as happens frequently when I system (ppshow menupic). Hope you can help me this time as a monitor I asked you for help with got no reply recently.

Steve Sandham  
Cumbria.

Dear Steve,  
I have answered your monitor letter (not very satisfactorily, I must admit) but remember that there is quite a delay in publishing any magazine, between 2-4 issues depending on when your letter arrives and if there is a space problem for any particular issue.

Nobody I know uses 'graphics' for programming. What are you driving at?

The Amiga has a very well documented GUI called Intuition. This provides the facilities for menus, buttons, requesters and all sorts of other things. What you need is a load of documents and examples. I would suggest that you get hold of:

Amiga ROM Kernel Manuals  
Libraries  
Devices

Includes and AutoDocs  
The AmigaDOS manual  
Programmers Guide to the Amiga,  
Robert Peck  
The Native Developers Disk Set (contact CBM UK)  
and the RKM example code available on many Internet AmiNET sites.

Digest that lot and you will have a fair idea of what the Amiga can do. I would suggest that you get the RKM libraries, Pecks book, the disk set, and the examples as your first step. The other RKMs can wait until you need them.

Your idea of using Switch(); is fine, but you have to respond to an Intuition event, normally via a message port.

Your method of displaying a picture is not correct. I would open a backdrop window to display the image rather than using another program to do this.

Another thing to do, is look through the mentor articles in your back issues of AUI. Paul Overaa have produced some excellent articles on various aspects of Amiga programming.

## PROG



Dear AUI,  
Please help! I have an Amiga 600 with external drive, printer and 2 megabytes of RAM.

I have created a program which lets you create a RAD: drive and you can specify how large you would like it to be. On the disk are materials I don't want other people to get hold of, e.g. music, pics etc. So could you please answer the following questions.

1. How can I make a DOS disk not a DOS disk so that the disk can't be accessed from a DOS running program e.g. Workbench? I know it's very hard and has got something to do with the code and track 40 on the disk.

Please, please try to explain how to do this or tell me an easier way.

2. In Amos I wish to create a password generator. I know how to do this BUT how can I make it so that the user can define the password?

## Answer Types

<b>APPS</b>	Programs etc]
<b>VIDEO</b>	Video related problems
<b>COMMS</b>	Communications
<b>PROG</b>	Programming
<b>OS</b>	Operating System
<b>PRINT</b>	Printer Problems
<b>COVERDISK</b>	Cover Disk problems
<b>OTHER</b>	For Anything Else

3. Every time I create something using AMOS I always get the flash of the default screen as soon as I use it. How can I get rid of it?

4. How can I stop the keys control and C to be active in an Amos program so you just can't quit the program?

5. I want to put a password on a non DOS disk, but how can I if the password program is DOS. I know or think you have to save the program on a certain part of the disk.

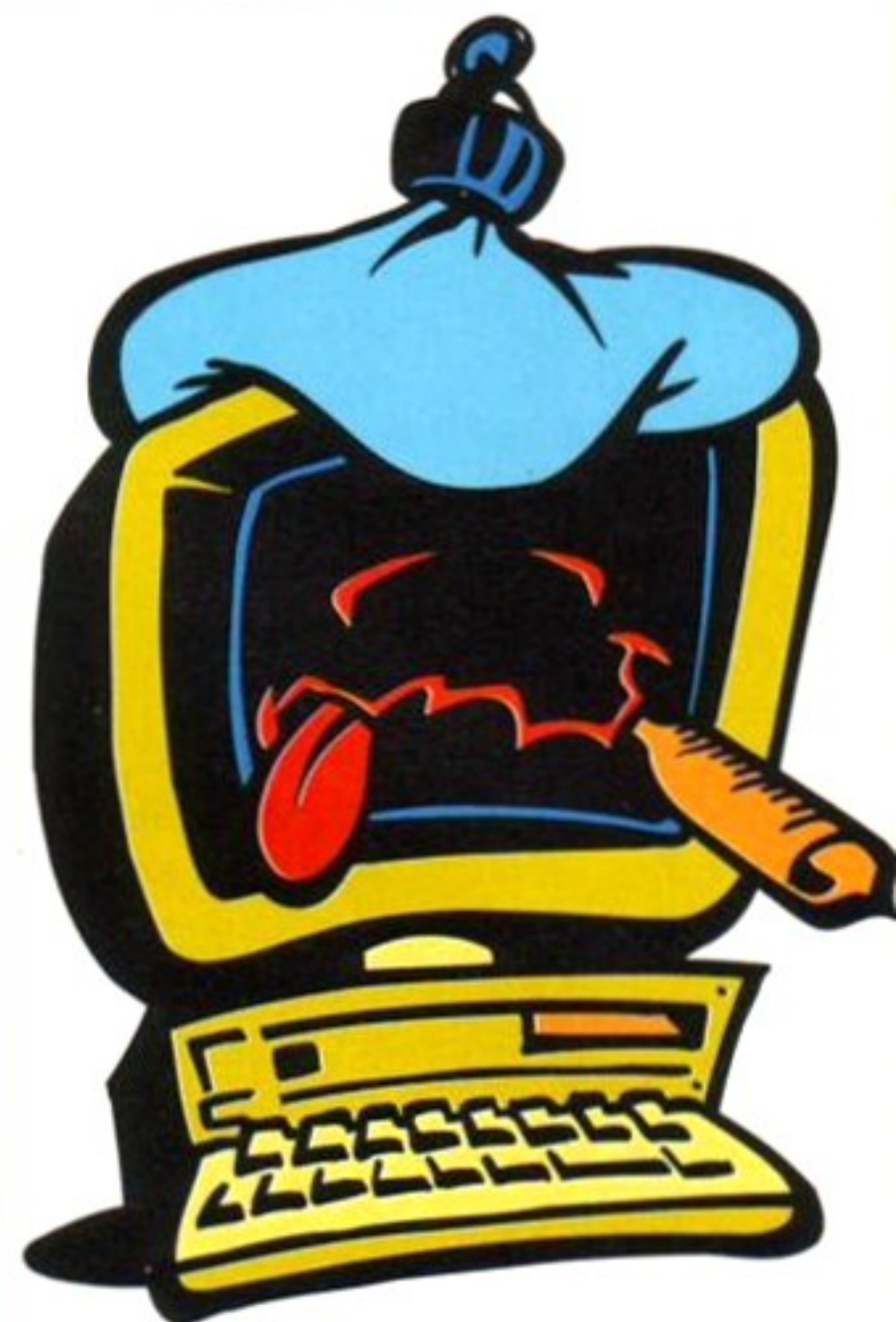
Paul Stanbra  
Sheffield

Dear Paul,  
I must admit that I am a little confused by your letter. A RAD: drive is only a pseudo drive in RAM, that should survive a warm reset.

There are dozens of methods in use that can mess up a disk in such a way that AmigaDOS cannot read it. Remember that programs 'talk' to Amiga devices through device drivers, the programs do not normally know anything about the DOS system. A program will just ask for file xyz and AmigaDOS takes over from there.

You would have to delve into the innermost workings of AmigaDOS and possibly write your own device driver to make this work. This is not a trivial task, and it can be fraught with danger, mess about with AmigaDOS and you run the risk of all sorts of disk corruption.

As you have already mentioned



passwords, why not encrypt your files with a password instead. That way you can let AmigaDOS do its stuff and it will not upset any other operation. Keep your data in memory somewhere, perform the encryption process to it (as simple or as complex as you feel like programming) and then write the data to a disk file. On reading back the password would be required to unencrypt the data.

If you know how to create a password generator, why your question? A program asks a user for a password. It is entered character by character, you do NOT echo the characters to screen (just a \* is sufficient). When a return is detected you ask for the password to be repeated just to check for entry errors. If all is well the password can be used. Is that the process you are trying to work out?

You never have to put a password on a disk, you just feed the password to the unencryption routine if the unencrypted file matches the users password then all is well.

The flash of the default screen, well this does not happen on my system. Try a very simple example:

/\* this is a very simple test for screens in AMOSPro \*/

Screen Open 1,640,400,8,Hires  
Print : Centre " hi there, this is screen 1"

Save this as test.AMOS, and then run it from the CLI

AMOSPro test.AMOS  
No default screen opens, it just goes straight into the hires screen in this case.

Stopping Control C; read about the BREAK command in the manual.



# WIZARD GAMES

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OS

Dear Sir,  
I hope that maybe you can help me with the following problem. It is not a major disaster, more of an annoyance. I am running a Amiga 1200, 2meg Ram and a recently installed 250 meg hard drive. The problem is with a couple of utilities I am running. I have installed a screen blanker "FracBlank FFP". (This was obtained from a P.D. disk) and a Workbench friend "Bobby". These were both installed, as instructed, to the Workbench Startup Drawer. They work fine, but on first booting the Amiga the message "Program <"Prog.Name"> has not yet returned. Should I wait some more", appears. If you click on "yes" after a couple of seconds the same message reappears.

If "cancel" is selected the Amiga carries on booting and the programs run. I also have installed in the same drawer a utility called "Ameko AGA" which is a cat that chases the mouse pointer. This loads and works without any problems.

Waiting for all these requesters to appear and then cancelling them is slowing down the access time, defeating the object of the hard drive. Before I had the hard drive the same problem arose with "Bobby" installed on the Workbench Disk. I had no screen blanker at that time,

I would think that the answer is probably something simple but, as a relative newcomer to computing and the Amiga, I am not sure what.

I have only recently found your magazine and am impressed. I am not really into games. Most of my time is spent on D.T.P.

A. Burge  
Norfolk

Dear A. Burge,  
As you have correctly guessed this is a very simple problem, but it is one that is not very obvious from the manuals.

You need to look in the manuals for the commodities programs. What is happening is that these little utilities that you are starting off are still setting themselves up when the Amiga wants to get on with the boot process. In order to keep things happy, there is a control system built into the system.

Click once on the icon of one of your startup programs, then select the information option from the Workbench Icons menu.

A window will appear that gives you all sorts of information about the icon (pretty obvious this one!) the part that will interest you are the tooltypes. You may find a big long list or maybe none at all. If the application has been

written to standard, you might find several words enclosed within <, i.e. <DONOTWAIT> the < make the command inactive. As you might have guessed the tooltype that is of interest to you is the DONOTWAIT one. Edit out the <, or type it in using ADD. Remember to save your changes. This will tell the Amiga not to wait for the program to finish setting up and will stop the requesters appearing.

OS

Dear AUI  
Help! I am worried I may have somehow corrupted my A1200 system discs. I have tried setting various preferences but to no avail and it is this that makes me think that I have done something wrong.

To begin with, I have tried changing my American keyboard set-up, using both advice in various magazines and from the manual itself, but I cannot get anything other than the American one as an option. I have dragged the GB keyboard icon into the RAM disc and then into the Devs/Keymaps drawer but still nothing in the Input option on the Extras, disc. Is there a command I have failed to use, or do you think that I have corrupted the discs during my original back-up procedure?

Also, I have tried to experiment with a backdrop for Workbench using the instructions from the manual, but no IFF picture files come up to select. What am I doing wrong?

Sorry that these are questions I am sure you have heard again and again, but as a beginner, I would really appreciate your help.

Craig Jones  
Weston-Super-Mare

Dear Craig,  
I don't think that you have done any damage, the backup system is fairly secure, especially if you ensure that the disks are write protected. You are just having problems getting the keymaps into the correct place.

You should have found the gb keymap on the storage disk. The problem is normally that the preferences program is looking in the wrong place. This is a problem that you will always face with just the A1200 internal floppy as storage.

Ensure that you have copied the gb keymap into the Devs/Keymaps directory, and then drag the Input preferences program into ram: and run it from there, ensuring that you have your Workbench disk in the drive. The keyboard preferences are saved in the ENVARC directory on your workbench disk, as are most preferences settings and the Amiga grabs all of these on boot up.

The reason that no IFF files come up is because there are none! You have to supply them. There are thousands of IFF files about, all Amiga paint packages can produce them, also there are just as many gif files. The Personal Paint program that we gave away on the SuperDisk31 can read gif picture files and save them out as IFF.

OS

Dear AUI,  
Hi! I am now going to say the obligatory message about how good your magazine and your particular column is and all that bumf, so please skip to the next paragraph if such things make you weary. Here goes. Your column has helped me many times in the year I have owned my A1200, and removed me from several unhealthy situations which are not worthy of mentioning in such a grandiose tome as yours. I have been (fairly) regularly collecting your magazine as I believe it is of the best quality both in contents and accuracy of facts.

There. Phew! Now down to business. As mentioned above, I have had my A1200 for approximately one year (since 31 August 1993). During this time I have had about 90% of the contents replaced and had a new powerblock - the new one is the 'ExtraLite' version. Only very recently have I been bothered with backdrop patterns and pictures on my Workbench. Now admittedly, this is not exactly an overly important complaint that I have, but damned annoying nonetheless. You see, if I place a pattern or pic in the backdrop, there is a visible indentation down the left hand edge of the screen. Once I saw this, I noticed that it did not just occur with backdrops, but affected windows opened on Workbench also. This fault does not lie with my TV/Monitor, as other programs which do NOT open upon Workbench are not affected. Any information which I thought would be relevant in solving this problem is included in the disk in the form of IFF screenshots (quickgrab used), and a complete directory tree of SYS: (which is partition HD0:). Copies of S: files I figured you would not need, as the same problem arises when I boot without a startup-sequence, and when booting from the original Workbench disk. I betcha its the ROM. I am buggered if it is, as A) my warranty ran out. B) upgrade to 3.1 for the A1200 isn't available yet. C) I don't have the cash to spend on an upgrade or repair. D) It was me that broke the Pope's leg. A few teething problems there eh?

I am studying for a BEng (Hons) Software Engineering degree. What would my chances be for a decent job in the Amiga community be if I passed (assuming Commodore lives through its current hiccups)?

What is / How do you get the Fighter Launch in Frontier?

Hint for Frontier addicts: To increase playability, do any of the following :

Use Zap or some other binary editor, search for a place-name, and change it to yours! ie. change Abraham Lincoln in orbit around Earth to Babylon5. You get a major rush.

Play Frontier in NTSC mode. Looks like a converted Panavision flick - goes faster too! Problem is, when you save, it flicks back to PAL.

What is / How do you get the Mirage?

Tell me, is it just me, or are there infinite galaxies in Frontier (try zooming out lots)?

Laga M Hale  
Scotland

Dear Laga,  
I must admit that I cannot see anything odd about your screenshots at all. There is no indentation on the left hand side at all. You do appear to have a dead zone running top to bottom, on the left hand side, is this what you mean by indentation?

What you have is very common, and it is due to the various screen modes, overscan settings, and the monitor itself. There are several monitor editors available in the PD, these may help a bit. However check out the following first.

You must set you your monitor drivers correctly, this means using prefs and overscan. Once you have set them up, SAVE them. The settings MUST be saved in the ENVARC: drawer. The contents of the ENVARC: drawer are copied into the ENV: drawer which is created in RAM: during the normal startup. When you boot from other disks, I would guess that you do not set up the ENV: in ram at all. In that case you just get the defaults stored in ROM, which have to work with just about everything, hence the unused boarders.

You can edit the screen size, and overscan for all of the screen modes, so be warned it is a tedious and long winded process.

Try including the VGAonly icon in your monitors drawer. If the system finds it, it will modify the timings slightly to help VGA monitors. If it is already there try without it, you won't do any harm.

If you cannot get things as you want, the only option is to use one of the monitor editors, but you do have to be a little careful when using such programs, as it is possible that some

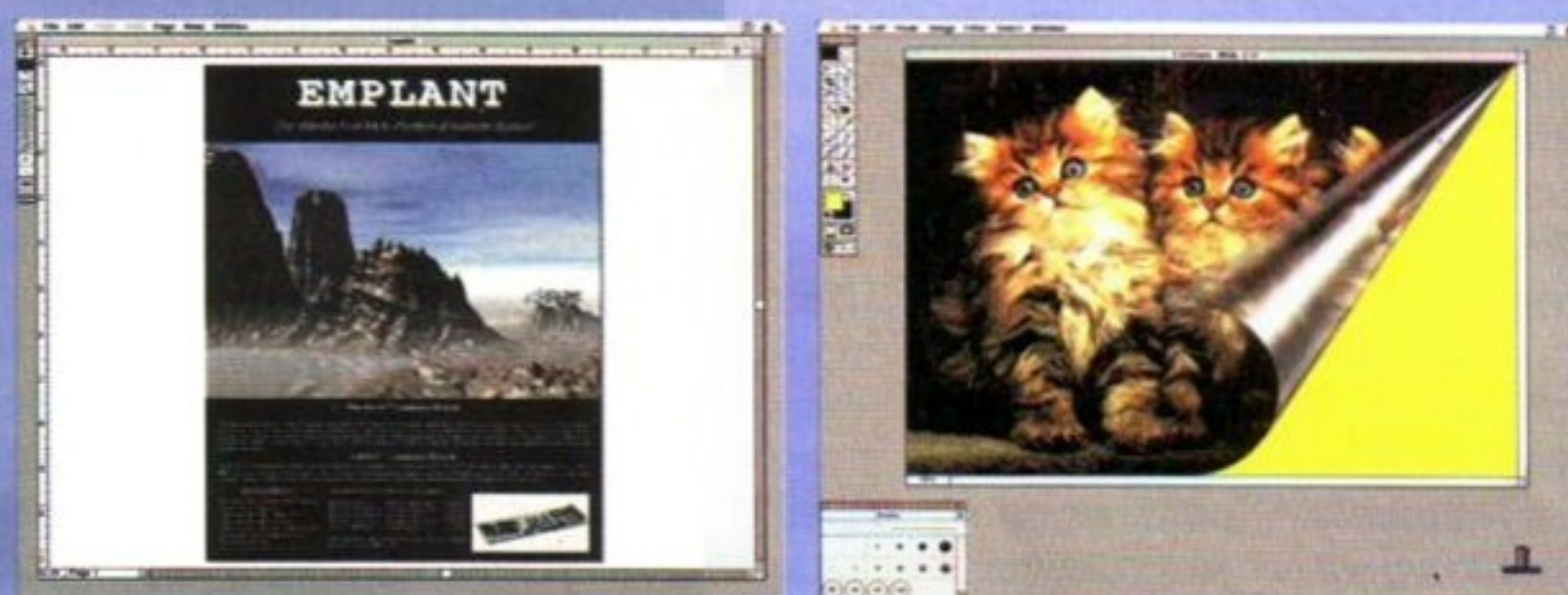




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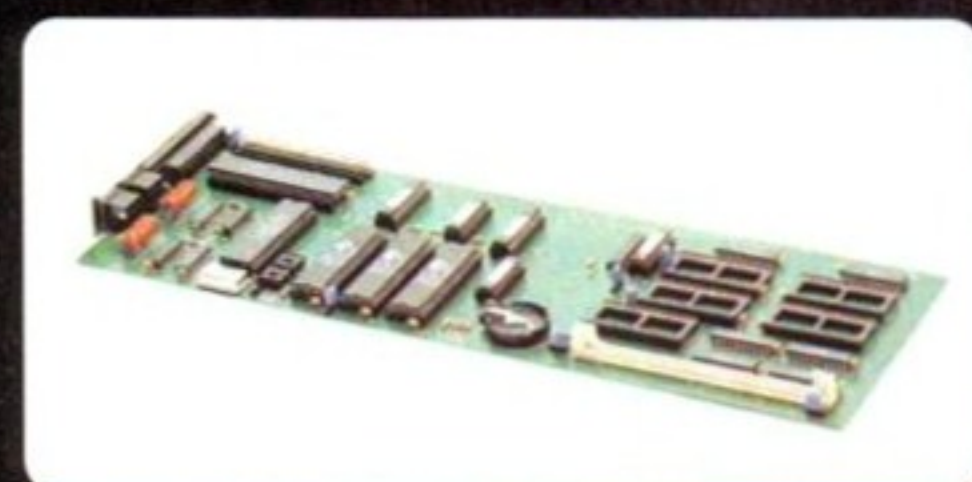
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monitors do not like the scan timings to be too far off the norm, if they are a long way off, the monitor could be damaged. I have never come across anyone who has managed to cause any damage yet, but the possibility is there.

Good luck with your studies, however you will still have a lot to learn about the Amiga and that takes a great deal of time. A good grounding in programming will help you in any job, but breaking into a limited area such as the Amiga will be very hard. You will have to prove that you are very good with the Amiga first.

What fighter launch in Frontier? As far as I know all ships are launched in the same way and you only have control of one ship.

All ships are available, but not at every space station, you have to fly about a bit. I'm not going into any more detail, it would spoil the game.

Infinite Galaxies? Don't be silly that would take infinite memory and infinite time to program. There does not seem to be a galactic hyperdrive in Frontier as there was in Elite. So you are stuck with one galaxy. The number of locations to visit should be enough to keep you happy for a long time.

## OS

Dear AUI,  
I have written this letter because of the frequent problems I am having on my A4000/030 with a total of 10Mb (2Mb Chip) memory.

(a) After installing Toolsdaemon v2.1a on my hard drive, I deleted all icons to gain some valuable disk space. But, the computer acts very strangely after I try to exit from some programs, e.g. Dpaint v4.5 AGA and Scala MM300. It hangs for approx 3 seconds on the Workbench screen and then a software failure message is displayed with these values 8000 0004 07871750. Afterwards, it reboots and so I go again. This only happens if in the prefs menus, I choose the CloseWB option. I am suspecting of Toolsdaemon, because when I run Dpaint/Scala from CLI and exit, nothing strange happens, even with the CloseWB option selected.

(b) After installing NickPrefs' BusyPointer Editor, I am always getting the new animated busypointer on the BlitzBasic editor screen. This should appear only appear when disk IO operations are taking place. How can I avoid this?

(c) Lately, I have installed a new 250Mb hard drive to my desktop. Occasionally, when I try to copy some files to this drive, the computer hangs and the hard drive LED indicator remains lit up. First, I suspected that the file manager I am

using was faulty (SID v2) but when I tried the same operation from CLI I got the same results. It even happened with different files. At this stage I had to reboot and re-validate the drive using DiskSalv v2. The only difference I can notice is that the previous hard drive was formatted as DC-FFS and this new hard drive was quick formatted as FFS Intl. What can be done to overcome this problem?

(d) Is it true that the Tandem CD-IDE controller is out of stock?

Dominic Cachia  
Malta

Dear Dominic,  
As far as I know there is nothing much wrong with Toolsdaemon, I've been using it for a long time without any problems at all.

80000004 is the error for the illegal instruction. Why on earth did you delete the icons! They contain very important information for some programs, stack requirements, mountlists and so on.

I'm not surprised at anything your system will do in such a state.

The easy way is not to use nickprefs, why bother, it only eats up processor time.

If the problem only occurs on the blitz screen, then it is likely to be a program interaction rather than anything else. You will just have to live with it.

You have not told me anything about the hard drive, or the interface you have fitted. (Do you have two drives now?) IDE drives are very very fussy about the maxtransfer masks, ask your dealer what they should be set to for your particular drive.

I suggest that you reformat your hard drive, JUST use the FFS option, don't use anything else, and then do a full format. Reinstall your applications WITH icons, and that should stabilise your system.

SID is very slightly flaky in launching other programs. However I use it all the time, and I don't normally have any problems at all.

The Tandem controller was in short supply, but they seem to be in stock again.

## PRINT

Dear AUI,  
Please help, I have a problem with my printer. A few months ago I upgraded (at last) from my speccy 128 plus to an A600 with the 2 meg memory expansion. I have no external drives or hard disks, just the basic machine. I wanted to use my Amstrad DMP3000 printer with my new Amiga as I had with my Speccy (with which it worked perfectly). I realised that I would need an

Amstrad driver and the relevant jiggery-pokery with the printer prefs.

I purchased a PD disk of drivers that had these drivers on it. Amstrad Old, Amstrad 9 pin, Amstrad 24pin as well as hundreds of others.

I have put these and some others in the Devs printers drawer and selected them one by one on the prefs printer tool then I have tried to print with it through my WP Scribble (that came on a magazine coverdisk).

After this trial and error method I found that the EpsonOld driver worked best - why is this? The results however are not perfect. The printer will insist on placing an extra blank line between each printed line, why? I have read the printer manual back to front and back again umpteen times - there is no way I can see of stopping this line feeding by altering the dip switches. I have tried to no avail.

When I was using my Speccy my WP was built into the printer cable/interface and was called RAMwrite there was an option on the printer prefs screen on that to toggle LF on and off if I set it to off then I did not get this extra line spacing when printing out. So presumably I need a control code (or an escape code?) but if you can give me one how do I implement it? The extra line spacing also occurs when I try to print graphics via DPaint3, Photon Paint 2 simply refuses to work with the printer at all. Please try to help; I cannot afford to purchase another printer as I was recently made unemployed.

Also is there any way I can run Model4D and VR World with WB2.1 and a 68000 chip?

David Foster  
Suffolk

Dear David,  
Things like this are always an utter pain in the neck. The problem is that your printer is responding in the same way to a Carriage Return (CR) as it is to a Line Feed (LF). A CR should only return the head to the start of the line, the paper should stay still. Many computer systems terminate their lines with only a CR. So printers usually have the option of setting a AUTO CRLF, basically every time they see a CR they also do an LF. This is called AUTOLINEFEED on my Epson printer. I would need to see the handbook referring to the settings of an Amstrad, send me a photocopy of the page(s) and I'll be happy to have a look at them.

Thanks for the example printout and the SAE, this makes my life much easier. The bold text, or rather the lack of it in normally due to the driver not creating the correct control codes. One of the drivers that you have on the PD disk may very well cure this. Don't

worry about this for the moment, the most serious problem is getting the line feeds sorted out.

The reason why the Epson drivers often work is that many printers are Epson machines with another suppliers name on them. Epson really do make that many printers!

I'm sorry to say that the programs that you mention need the more advanced processor, they just will not run on a 68000.

## PRINT

Dear AUI,  
First let's get the system description out of the way so you can suss out what's going on.

A500+ ChipRAM 2MB Zappo ext drive. (That's it.)

The problem I have is my printer. Like many things I have, it was given to me by a mate who was sick of the problems I'm now having with it. My main gripe is that it does not do what the Amiga tells it to do its plate says it's an Epson MX80III F/T.

What I'm struggling with is programs which try to tell the damn stupid beast what to do, such as tabs, line spacing and amongst other things typeface.

I'm using EpsonXOld driver from Workbench and various programs from the good old Public Domain such as QED, Textra etc.

My main problem so far has been with Doc Dump though this until has been a real bitch and prints (in booklet mode) half of the current R.H. page underneath the last line of the L.H. page also the stupid beast must think it's in pica mode because it double carriage returns after every line and one page of text that is supposed to fit on 1/4 A4, tends to run to about 1 1/4 pages.

I'd really be grateful if you can help me as I'm pulling my hair out at the moment and need sanity saving advice. I'm not stupid (just qualified as a City and Guilds level 3 C programmer), but I have tried everything I could think of to no avail.

Just a quickie, do you know the pin outs for old 9 pin CGA/EGA monitors as I've also got one of those as a freebie and can't really afford to buy a proper monitor, I'm on the rock and roll with a family to support and desperate for work.

S.R.Sandham  
Cumbria

Dear S.R.Sandham,  
I can understand your frustration with DocDump. (Fish 800 for anyone who is interested). You have made a silly but understandable mistake. To get the best out of DocDump it uses its own printer drivers. This enables it to



use all of the available facilities of the printer rather than those set out in the standard Amiga Printer drivers. Some of the supplied drivers have the same name as the real Amiga printer drivers. This may be the root of your problem. Put back all of your Amiga printer drivers and get the printer working on that first, forget DocDump at this stage. You are using the correct driver, (EpsonXold) so it is just a matter of setting up the paper lengths and so on. For most Wordprocessing, I would turn off the skip over perf option, the WP will sort this out.

Once you have set up Preferences and are happy with the printer settings, then start looking at DocDump. Read chapter 10 of the instructions very carefully as it describes how to build a printer driver for any particular printer.

I have an C128 handbook which gives the pins for a 9 way monitor. I think that these are the same as CGA.

- 1 Ground
- 2 Ground
- 3 Red
- 4 Green
- 5 Blue
- 6 Intensity
- 7 -
- 8 H-sync
- 9 V-Sync

Remember that these are LOGIC level inputs. CGA only supports 8/16 colours.

## PRINT



Dear AUI,  
Recently I purchased a second hand printer, this being a Digital LA50-RC, as you can see from this letter it does work. The problem I have is that I can only get it to print standard printer fonts but not graphics or Amiga fonts.

I have an A1200 with Workbench 3.0. I have tried many different drivers but none seem to do any good, this letter was done using the Generic driver that is on Pen Pal, also used for this letter. Unfortunately I did not get a user guide with the printer, it only cost me 50p!, so I do not know how the 16 dip switches should be set. The printer is plugged into the serial port and the settings are as below:

BAUD RATE 4B00  
BUFFER 1024  
READ BITS 8  
WRITE BITS 8  
STOP BITS 2  
HANDSHAKING XON/XOFF  
PARITY NONE

Therefore what I need to know is

- (A) What Driver should I be using?  
(B) What should the dip switches be

set to? (C) Are the serial settings right?

I have enclosed a SAE in the hope that you can reply personally to this letter.

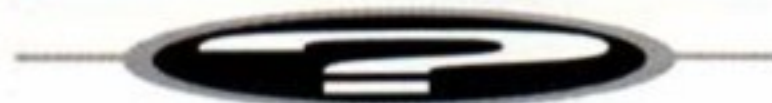
R. J. Baines  
Peterborough

Dear R.J.Baines,  
Sorry I can't help directly on the printer settings. You really do need the handbook. However you have a bargain at 50p.

You should use the EpsonX driver, as 99% of printers are Epson compatible, that might give better results. The other point is that you should use hardware flow control. However that will probably need the dip switches changing.

One last thought, try holding down line feed when powering up the printer, as this normally generates a test report. You can also try FF as well, but that does not always give anything. (If it does anything at all, it will probably be a form of hex dump utility.)

## VIDEO



Dear AUI,  
I recently purchased a MICROVITEC 1483 monitor to use with my CD32/SX1. Would it be possible to print the pin connections and what each one does for either the monitors DIN plug or the adaptor that allows it to be plugged into the Amigas 15 pin serial-esq monitor socket. The reason I ask is because I would like to use my almost redundant SNES (just for mario kart) with the monitor. The SNES is American and I will be wiring up the SCART output to the monitor. I would also be grateful if you could tell me about any problems you can see with this electronic joinery, or if you have any idea where I can get hold of an adaptor. I have tried Tandy and a local computer shop but they didn't have a clue.

Ralph Headley  
Cheshire

Dear Ralph,  
The standard 15 way VGA connector has the following functions. However, I do not have the specifications for the SX1, so check your handbook, they should be defined somewhere.

This is taken from the CBM 1960 monitor handbook, which plugs into the A4000.

- 1 Red
- 2 Green
- 3 Blue
- 4 Ground
- 5 Ground
- 6 Red Ground
- 7 Green Ground
- 8 Blue Ground

- 9 No Pin
- 10 Logic Ground
- 11 Ident output
- 12 No connection
- 13 Horizontal Sync
- 14 Vertical Sync
- 15 No Connection

It is not very likely that the SNES can use a multisync monitor. The SCART connector has pins for all sorts of functions, but most manufacturers only implement a small number of them. I would expect the SNES to only use the composite video connectors.

It might be worth giving Trilogic (Bradford) a call, they do produce leads to fit most monitors, they might even know about the SNES.

## VIDEO



Dear AUI,  
I am a new reader to your magazine. I am very pleased and intend to keep buying it, could you please help me concerning video and sound? (I have a standard Amiga 1200 with no hard drive, I use DPaint 4 AGA, Music X, Octamed 4, Adorage, etc).

First of all I am having trouble taping something from my Amiga to our JVC video. I have included a rough plan of the back of it. One boy from my class can tape images from his old C64 to a video, I have got one too, but cannot achieve this. What software and hardware do I need? I think the problem is my video recorder. Also I want to tape some music from my Amiga to an audio tape. I think you need to use a sampler or a midi, something like that (I use my Amiga mostly for games, so I don't know much about other aspects of it). Finally can you recommend a good printer- from £150-£350 price range. Also, on the games/software side, could you recommend some good football management sims and football predictions to be used in fantasy football (both on pd) thanks, please put this in your excellent magazine,

Patrick Mateer  
Yorkshire.

Dear Patrick,  
You are going to kick yourself over this. Connect the Amiga to the aerial input of the Video. Tune a spare channel on the video to the output of the video. Then record as normal.

If you are using SCART, you might need to have a dedicated JVC lead. It rather depends on the VCR.

The Audio is even easier. The Amiga has stereo audio outputs, just connect them into the Aux inputs of a tape deck. Adjust the record level accordingly and that's all there is to it.

Printers, well there are lots. Have a look at the Canon 230 range of

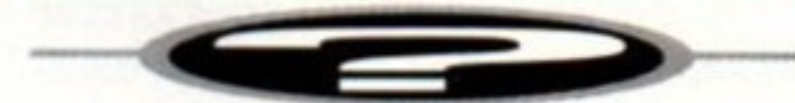
printers, also the Samsung are good value. Also invest in a copy of the Studio printer driver system. Note that there is a special version for Canon printers.

Fantasy Football? What the hell is that, England winning the world cup? Sorry I haven't got a clue on that subject.

(Enter Gideon Overhead, PD master extraordinaire.

The only football management sim that I know of in the PD is called Super League. It is quite like an old footie game called Football Manager. It's OK, but a bit simple. There's a horse racing predictor called Pro Gamble, but I'm not sure that a PD football predictor exists. There's plenty of both available commercially, but I suppose you guessed that. If you want both of these to be for fantasy league, I don't think there are any. There are fantasy utilities around. But I think they're from the States and not designed for football. Contact one of the PD libraries advertising in AUI and ask though.)

## VIDEO



Dear AUI,  
I have bought your magazine for a while now, (and it's great) and I've written to you a few times, but never had a reply. So I'll try again. You did an article in your August edition on page 36 on still video pro, the ION camera slide adaptor etc. I have an Amiga A1200 with nothing added and am wondering if it is possible to use the slide adaptor on the above computer. If so could you give me the information I need to purchase this equipment and I would be very grateful if you reply to this letter.

M. Jones.  
Merseyside

Dear M.Jones,  
On the subject of replies, I can only repeat that most letters sent to Amiga Answers get a reply in the magazine. Problems can arise if you make several comments to different sections of AUI in the same letter. Obviously this can cause a lot of confusion and it is worth remembering to use separate sheets for each section that you write to.

If you read the review you will notice that there are two methods of connecting an ION to the Amiga. The first is to use Amiga Vidi 24, or a specialist adaptor RC-260. The contact is given as Hobbyte, who have unfortunately gone out of business. You could try First Computer Centre. Their number is in their advert.





## OTHER

Dear AUI,

With reference to the correspondence, in July Amiga Answers from Leonard Costa, re reading MS-DOS formatted drives on the Amiga. I have successfully done this in the past with my old and trusty 1000 using a home built interface, a ST506 type drive and CrossDos.

Currently having minimum requirements to use MS-DOS, except for occasionally sorting out work-mates problems, all I have is a small partition on a Quantum SCSI drive. This partition is set up in the usual way using HDtoolbox and then mounted using the CrossDos mount command. This partition is formatted using the CrossDos format program and is a boot partition for MS-DOS0. I have included the mount entry that is used to mount this. System used is a 2000HD with two SCSI drives and 68030 accelerator board running WB2.1. In addition to CrossDos as supplied with WB, I

also have version 5.0 as purchased prior to WB 2. Taking the liberty of briefly quoting from the v5.0 manual.

Two types of MS-DOS hard disks supported, an entire disk that is in MS-DOS format or a partition on an AmigaDos formatted drive. To configure the entire disk type, we suggest that the disk be formatted by the target PC that is to share the data. MS-DOS is fussier about how a disk is formatted than CrossDos is. Hard disk partition names must end in C for first D for second through to possible 24 partitions. I use PCC. Mount entry would normally go in devs:dosdrivers drawer and I would suggest not putting the mount command in the user-startup as the drive is obviously not connected at all times. Suggest that maximum benefit from CrossDos would be obtained from purchase of v5. as manual has more information and the installation utility makes it easier.

/\* Mountlist Entry for Ms-Dos image partition. \*/

/\*

\* Disk Size: 49 Meg

\* Vendor and drive name : 005

QUANTUM LP52S 950509405

\*

\* Partition Size : 4 Meg

\*/

Surfaces = 1

BlocksPerTrack = 49

LowCyl = 1900

HighCyl = 2084

DosType = 0x4d534800

Buffers = 5

BufMemType = 0

Activate = 1

Device = scsi.device

Unit = 5

Flags = 0

FileSystem = L:CrossDOSFile System

StackSize = 2000

Priority = 5

GlobVec = -1

Change LowCyl, HighCyl, DosType and FileSystem to suit.

T.Tricker

Brahma Lodge S.A.

Dear T.Tricker

Well what can I say, apart from thank you very much for taking the time to write to us. I'm sure that Leonard will find the information useful, as I hope will other readers.

## OTHER

Dear AUI,

1) I have a A600 2meg. Is there any way of making it as fast as the A1200?

2) Can you change the CPU from 68000 to 68020 or 68030 if so where can I get the chips from? How much will it cost? Are there any chips that can be up dated in the A600?

3) Is there any way of linking the Amiga to the CD32 and playing the games on the Amiga but loading them from the CD32? Like with a CDTV/A1200 loading them on the CDTV and playing on the A1200? Will Commodore bring out a trapdoor board with the AA chipset VGA chips and WB3 on it?

Bruce Smith  
Bedfordshire

Dear Bruce,

1) I don't think that there are any accelerator cards for the A600. In all honesty they would be poor value for money. It would be much better to buy an A1200. You would also get the very much improved graphics chipset.

2) No, the internal architecture is completely different. The 68000 is 16 bit, and the 68020/030 is 32bit.

3) There are CD32-Amiga linking systems. However, you are at the mercy of the programmers in getting the games to run.

I think I can safely say that it will not be possible to implement the AA chipset in the trapdoor expansion.

## OTHER

Dear AUI,

I had a CD32 for Christmas and it's excellent. I like Wing Commander the best, but what I really need to know is which disk drive I need to connect to my CD32, so I can Play A500/600 games. Please could you tell me what it's called and how much it costs?

Paul Wooderoot  
Staffs

Dear Paul,

The only inter-face that is readily available for the CD32 is the SX1, this costs nearly £200. See the review in the October issue of AUI.

## OTHER

Dear AUI,

Please could you clarify a small problem that might infringe on the copyright laws. At present I have a lot of software on disk and with the advent of the CD Drive for the Amiga 1200 series, people are advertising

## Toolbox 4 - Xoper V2.2

Author Werner Gunther 1989

Xoper is another system monitor, and has many functions. In some respects it is like Snoopdos (Toolbox 1). Xoper has a very important difference though, it can MODIFY quite a few things. It is possible to do quite a lot of damage with Xoper, so PLEASE be very careful when using it.

Run Xoper from the Workbench in the normal way, and enter a ? In the command line to get a list of the commands. These are fully documented in the doc file, but the commands T, F, U, L, D give various system lists. Xoper really starts to become useful in tracking what a particular process is doing., it can also trace memory usage, and monitor the capture vectors. Like SnoopDos, Xoper is one of the most powerful system utilities available to the Amiga. There is a bit of overlap between the two programs, but generally they compliment each other very well.

Here is an example of Xoper output, this is the output of the Devices command as run on my A2000 system.

DEVICE	HDS	SECTORS	TRACKS	BUFFERS	STATE	HANDLER
SD0	2	11	80	5	loaded	statram.device
PIPE	—	—	—	—	unloaded	L:Queue-Handler
AUX	—	—	—	—	unloaded	L:Aux-Handler
SPEAK	—	—	—	—	unloaded	L:Speak-Handler
RAM	—	—	—	—	loaded	RAM
CON	—	—	—	—	unloaded	
RAW	—	—	—	—	unloaded	
SER	—	—	—	—	unloaded	L:port-handler
PAR	—	—	—	—	unloaded	L:port-handler
PRT	—	—	—	—	unloaded	L:port-handler
dh0	1	35	1196	128	loaded	scsi.device
DF0	2	11	80	5	loaded	trackdisk.device
DF1	2	11	80	5	loaded	trackdisk.device
dh8	1	78	1455	128	loaded	scsi.device
dh9	1	78	1589	128	loaded	scsi.device
dh6	1	78	1450	128	loaded	scsi.device
dh7	1	78	1594	128	loaded	scsi.device
dh1	1	203	199	128	loaded	scsi.device
dh3	1	203	200	128	loaded	scsi.device
dh4	1	203	200	128	loaded	scsi.device
dh5	1	203	216	128	loaded	scsi.device
dh2	1	35	1145	128	loaded	scsi.device



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that you supply the files and they will copy them to CD in LHA Or DMS Format.

This offers me the chance of putting my collection on to one CD holding 650MB worth of disks!!! Thus allowing me to store the original disks in a safe place out of the way as they take up a lot of space and then become relatively redundant once copied onto hard disk.

So as you can see storing them on CD will give me more space and also the knowledge that I still have the ability to back up if the unthinkable happens.

As you can see I would appreciate some advice on this matter.

J.C. GRIFFITHS  
Cambridge

Dear J.C. Griffiths,

This is a difficult and thorny issue and there is no one answer to it. There are several factors involved and they vary from software package to software package.

Common sense tells us that as you have bought all the software then you can back it up onto a CDROM if you want to. The problem is that if you then sell the software on, you have to delete your backups. How can you delete it from the CDROM?

That is a very simple case.

Now let's get a little more complex. If you have bought a software package, you may not actually OWN it. You may have just bought the right to use the product. Software of this sort can have all sorts of restrictions on it.

You have to take each package individually and assess the license agreements to see what can be done with it.

The only things that you can be certain of are:

Your own work, and anything marked as Public Domain. If someone declares his program public domain, they are giving up all rights to it completely. You can do whatever you want with it, including selling it at as big a profit margin as you can get away with.

Another point is with the copyright of collections of software. Take the AUI SuperDisks as an example. Even if every single byte on the disk is declared by the authors as Public Domain, AUI has the copyright on the collection (not the individual programs).

A better example would be a musical score. Take one of the classics, Beethoven's 5th for example. Any musician can play this without restrictions as it is well out of copyright. However, if a musician made a recording of this, and presses a CD, he would hold the copyright on that particular recording. You cannot go ripping bits of it out with your sampler just because the original score is out of copyright.

## OTHER

Dear AUI,

I have recently (about 6 months ago) purchased an A600 with no extra RAM add-ons i.e. A plain A600 with Workbench 2.05 and with "THE WILD WEIRD & WICKED pack". I use it for Word Processing, DTP, Graphics to it's MAX, games, music, everything, practically. I love the machine and think it's great and I don't know what I'd do without it. But as times have changed the trusty old 68000 processor is now going out of date and so I thought it was time I upgrade to 32 Bit. My question is what would be the best thing to do? I've thought of selling A600 and buying an A1200 but I know that I would lose a lot of money so I thought of other options if there were any.

I see in September's edition of AUI that there was to be an OS 3.1 UPGRADE arriving soon. What is it exactly? Will it be compatible with the A600 and will it turn my A600 into an A1200? Will there ever be some kind of in board that will slot into the PCMCIA Slot or the Trapdoor Slot that will turn My A600 into an A1200?

Please could you help me as I think there will be many others with the same problem as me and as frustrated as me. Also could you tell me why there are so many hardware products for the A500 and A1200 and above and not For the A600. Surely the A600 is better than the A500 with having the PCMCIA slot.

Thank you

Chris Dorling  
Gloucestershire

Dear Chris,

There is not a great deal of EXTERNAL difference between Workbench 2.04 and Workbench 3, the main aim of Workbench 3 is to provide support for the new graphics modes. You will gain nothing in terms of speed by installing the upgrade.

There is nothing that will turn a A600 into an A1200, the architecture of the A600 is not the same. Cut your losses and get a A1200, you will gain the new graphics modes as well as a much more powerful processor.

In my opinion the A600 was a mistake, and it should never have been released. The only plus points that it had was the PCMCIA and it was MUCH cheaper to manufacture. It did not sell in enough numbers nor did it last long enough to make serious peripherals a worthwhile venture. The A500 has been around for a long time and it is the time rather than the machine that makes all the difference to what is available.

The PCMCIA is not a factor, we

are only just beginning to see the slot used now, and that is some years after the appearance of the A600.

## OTHER

Dear AUI,

I am writing to you for some general advice. Last week I bought your magazine, the first computer mag I've bought for at least two years and was a bit baffled by the new terms, etc. It seems as though I have been sent forward in time or something.

I used to own an Atari 510 ST. I enjoy programming but I am not very good. For instance, when I couldn't get to grips with Machine Code on the Atari, I turned to STOS Game Creator. Can you tell me if the Amiga Machine Language is easier to follow, or is it the same?

Also I was thinking of buying an Amiga 1200. Am I right in thinking this has 2MB built in? And is it easy to upgrade it - to 4MB say? And how do you recommend I do this? Could you also answer me the following questions:

1. What does AGA stand for?
2. In some ads the term (1 MB INSTALLABLE) is used. What does this mean?
3. Is Amos Professional a good program and will I be able to use it on an Amiga 1200? Will I need the compiler too?
4. Which is the better printer in your opinion: Panasonic's KX - P2123 or Samsung's SP2417?
5. Is Wordworth a basic software package in WP terms - I have noticed it is given away with printers, etc. Or does it depend on the quality of your printer?
6. Can you recommend a book on Amiga Machine Language?

I hope you can answer some of my questions. Thanks for your help.

Paul Maken  
Bolton

Dear Paul,

Welcome to AUI, and a potential welcome to the world of the Amiga. I agree that the terms are a bit strange at first but you will soon get to grips with them, and IFF, WB3, FFS, Kickstart, will soon become second nature. AUI runs beginners articles from time to time, and you can always write to me if you get really stuck. A stamped SAE will get you a quicker reply, as we do have a publication delay from when I answer the letters to the issue appearing on sale.

The A1200 is a very, very good machine. However, the Amiga is a very complex computer, and the single floppy is not really enough storage for the system. It is usable but it can be a real pain at times. If your budget will stretch to it, go for a hard drive from

day one. If you cannot afford that, get a second floppy.

The A1200 comes with 2Mb of RAM, and is easily expandable. This can be done by plugging in a RAM card in the PCMCIA slot, or plugging in a board in the 'trapdoor' expansion slot. Many peripherals use the trapdoor, and a lot of them are multi-function, often offering RAM expansion as well as their primary function (whatever that may be). However you only have ONE trapdoor slot, so you have to make a very careful decision as to what you plug into it.

The Amiga 1200 uses the 68020 processor, which is quite easy to program in machine code. However getting to grips with the Amiga OS is not a trivial task. The documentation takes up about 2000 + pages of text (A4 size) and is mainly documented in 'C' so you have to have a working knowledge of C to understand it. This is not so hard as it sounds as C is fairly readable, if well commented.

AGA is often used to describe the chipset that the A1200 uses, Advanced Graphics Architecture is one version, it is normally referred to as the AA chipset, as it does more than just the graphics.

"1Mb installable" normally means that the program will work on an Amiga with only 1Mb of RAM. Until the A1200 most Amigas only came with 1Mb as standard. Early Amigas came with 512K, and some of the very first Amiga 1000s only had 256K.

Amos Professional produces working code. However, the compiler which is available as a separate package enables you to create faster, stand alone code.

I don't normally give x is better than y advice. Printers are very hard to quantify. They all do a good job, and generally you get what you pay for. Consider the QUALITY of the output that you will need. INK JET printers such as the Canon Bubble Jet will give near laser quality. The running costs are a little higher, but they are very quiet.

If you are doing a lot of listings, then a cheap dot matrix may be all that you need.

Wordworth is a good WP and lots of people use it without any problems at all. The final quality does come down to the quality of the output device but it will produce some very good work. Like most things it depends on what you need.

I happen to use Protext which is mainly designed as a 'text bashing' WP, it does have graphic import capability, but I can't say I have ever used it. For big documents and text such as Amiga Answers nothing beats Protext for my use.

Have a look at Amiga Assembler Insider Guide, by Paul Overaa. Published by Bruce Smith Books ISBN 1-873308-27-2. It is a nice gentle introduction to machine language.



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1273 ASI FIX DISK VOL 1 (1)  
Get A500 programs working!  
1334 ASI FIX DISK VOL 2 (1)  
More A1200 utilities  
1336 BEYOND BELIEF (1)  
Spectacular AGA demo  
1358 BIG GIRLS (X) (1)  
1431 BIG TIME SENSUALITY (2)  
Excellent MegaDemo  
1389 BODY SHOP 7 (X) (2)  
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Fantasy slideshow  
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Short demo from Rednex  
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1504 MELODICAL  
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7 Excellent OctaMED Mods  
1503 MUSICALLY  
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More high quality modules  
1120 MICRORAFT 4 (1)  
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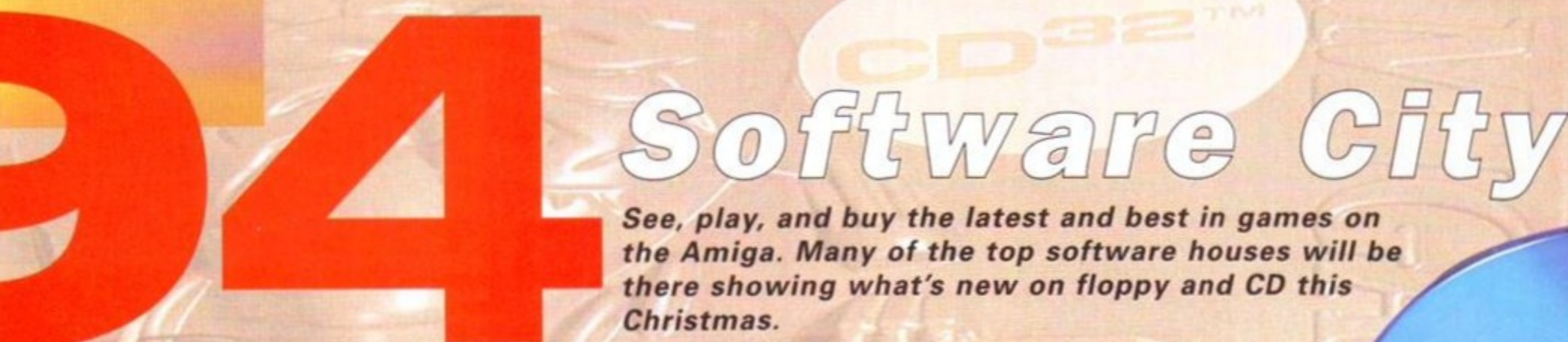
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# THE PD STAKEOUT

## Scoring

The marks awarded to each PD disk are based purely upon its own merits and, of course, our personal views. Value for money and reliability are also taken into account as well as features and quality of the software.

## Compatibility

The PD disks reviewed in this issue were tested on an A500 with Kickstart 1.3. Please check with your PD supplier that the disks you are ordering are compatible with your Amiga. Amiga Plus, 600, or 1200 owners should be aware that roughly half of the software in the public domain will not work with Kickstart 2 or 3. Always ask first.

## PD or ShareWare?

All freely distributable software comes under the rather deceiving umbrella of "public domain". Quite a lot of this software is, in fact, shareware. Shareware means that if you like the software, or use it regularly, the author will request a reasonable donation from £5 to £20. There is usually a note on the disk informing you if the software is shareware or regular PD. Whether or not you send a donation to the author depends totally upon your level of conscience and morals. Remember, if you send a donation to the author, you may receive an updated version of the software. Even if you don't receive an update, you will have given the author the incentive to continue contributing into the public domain.

### Disk U1119 KEW=II

I have only just begun to get into what is known as Magic Workbench. There has been some PD advertising its existence but I had not seen any of them at first hand. Magic Workbench is not a new fast souped up replacement for Workbench, it is in fact a set of very well drawn WB icons which are designed to replace the original ones supplied with your original Workbench disks.

You may think, yes, so what? Well, the beauty is in the design of the system. All the icons are created to use certain eight colour palletes. Eight colour palletes are only available on WB2.0+ machines. If the icons are viewed without the right palette they will not look right. With the right palette engaged they look simply stunning as each has been anti-aliased by hand. They also all animate in the same way and look extremely 3D.

The included pictures show what is possible on the Amiga using



## Magic

## Expansion 1.3

this system. Since the original disk was released, other Amiga users have been designing icons for all sorts of programs. The result is a new standard in icon design. Everybody who uses MagicWB is obliged to register it. But all MagicWB is is the palette. Agreed it is a very special palette of which only certain combinations will work properly, but people have argued as to whether you can ask for money for just using a palette as you could change the settings one fraction and it wouldn't be the same palette.

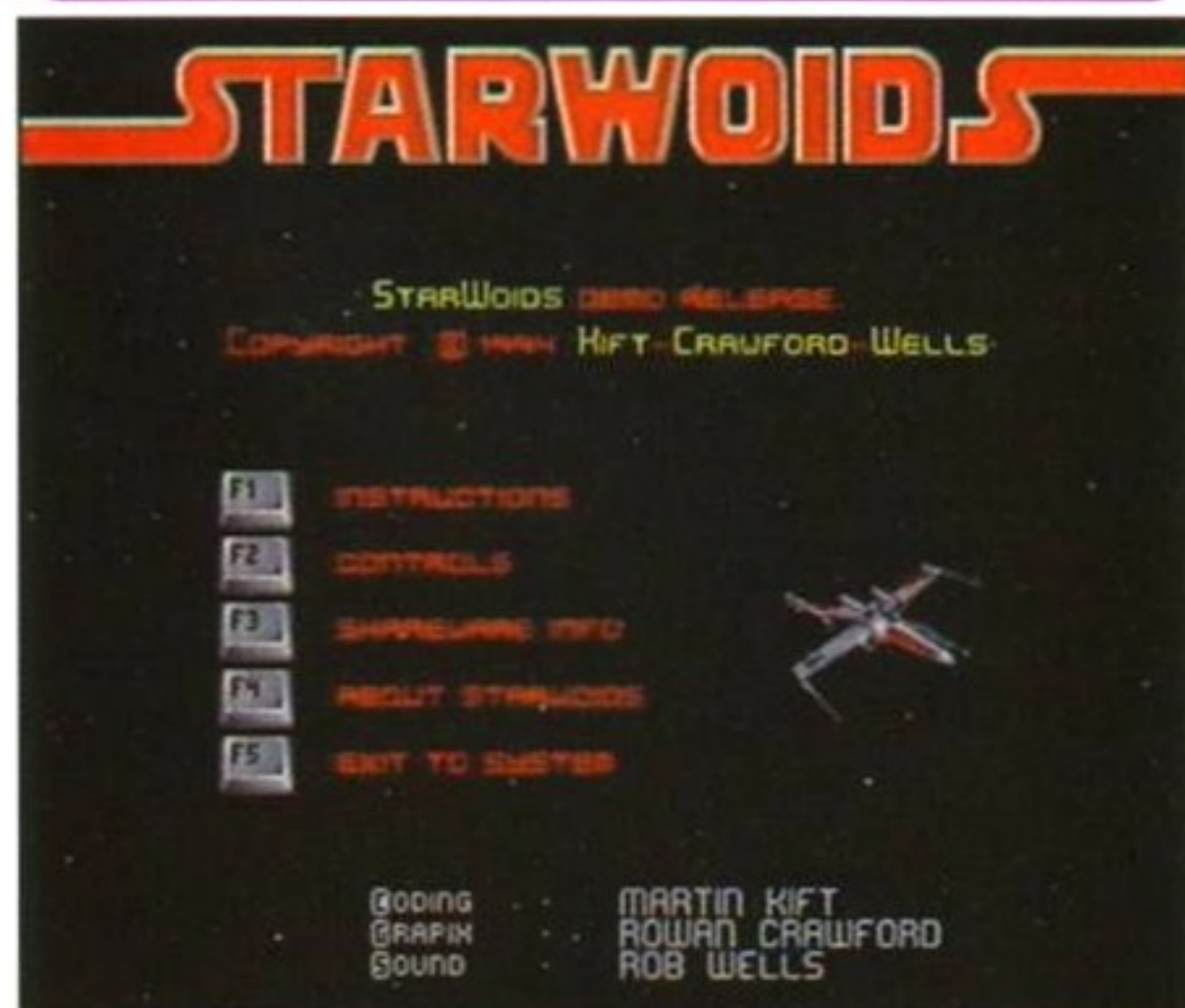
The question is left up to you the user. If you think this program is

useful to you and worth registering, then go ahead. Above all, the author should be rewarded for creating a possible globally accepted icon standard which, I believe, improves the look of Workbench 100%.

This particular disk by KEW=II is the latest in a line of MagicWB icon disks. If you would like to get hold of the first disk which contains the original MagicWB icons, the disk number is U1072.

**90%**

## StarWoids



### Online PD

Let's not try to disguise it, StarWoids means Star Wars. This game was a contender in a recent Blitz Basic 2 competition. The standard was very high as this game is excellent and didn't win. The game itself is based on several classic games, the main ones being "Asteroids", "Thrust" on the C64, and "Oids" on the Atari ST. The aim was to create

something that was better than all of these, and I think they succeeded.

There was one major feature of the game that seemed wrong the first time I played it. StarWoids looks and plays like the game "Thrust". This means you control a spaceship, and the object is to pick other objects up, shoot the things that shoot at you, and generally try and stay alive. Controlling the ship can be quite difficult at first, and this is the part of the game that felt wrong. Your graphic is that of an Xwing fighter, and every Star Wars fan knows you do not control an Xwing by pointing its nose into the sky and keep it off the ground by firing its engines. An Xwing flies through the air like a plane. A small point but an important one I feel!

The game itself is very enjoyable and highly polished. The graphics especially are excellent. The gameplay is very smooth, and gets increasingly difficult and you progress.

**95%**





# Movie Guide

## V2.04

Online PD

Putting together a movie guide would be a relatively easy task. There is software around to display such data. Inputting the information would be the big task. The authors of this guide, which comes on two disks, have programmed their own custom database.

A proper movie guide would best be suited to a CD ROM where there is the space to include detailed information on each film, perhaps pictures, and maybe even motion video and sound clips. Of course, what we have here is nothing as spectacular, but what do you expect for two disks? Well, you get quite a lot. The data is archived, and has to be installed onto

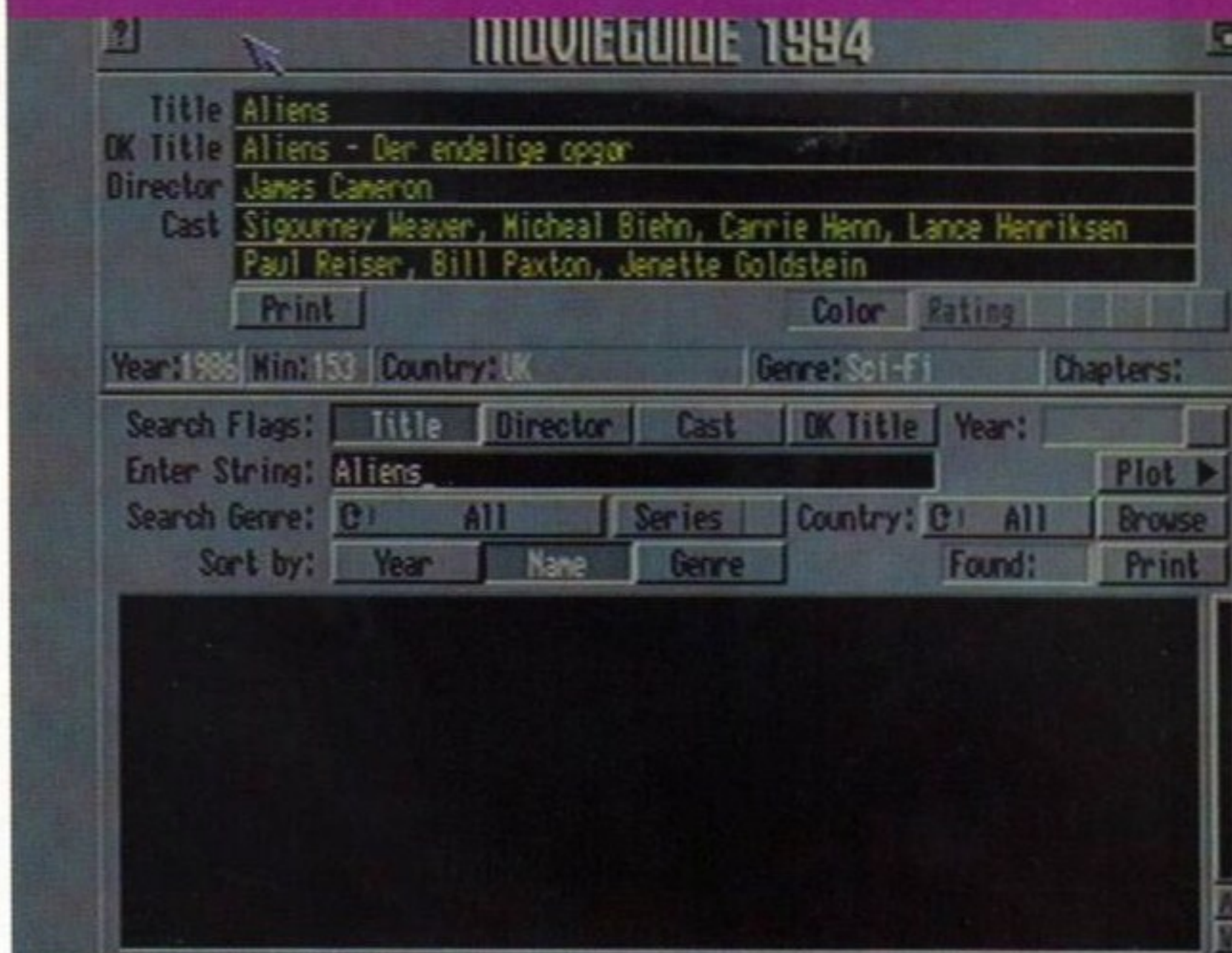
hard drive, so if you haven't one, don't bother getting these disks.

The archive expands to about 2.8 megs, 2.5 of which is the movie data. There are over 16,000 film and TV-series titles so far. Every entry tells you the Director, cast, origin country, release date, genre, length in minutes, and whether it is in B/W or colour.

Quite a few, but not all, contain a short paragraph on the plot line. Doing this for all films would have taken up a lot of space, not to mention time!

You can search the database by director, title and cast but unfortunately the search is a very basic one.

# AUI THE PD STAKEOUT



You have to enter the full name and title otherwise the search will turn up negative. But when the search gets going it is quite fast, and this is why it needed to be on a hard drive and not on floppy. This is an excellent set of

disks which I personally enjoyed using, being a film buff myself, but the limited search system was somewhat irritating.

**76%**

# TENPIN

Disk CLG51 Ian Curtis

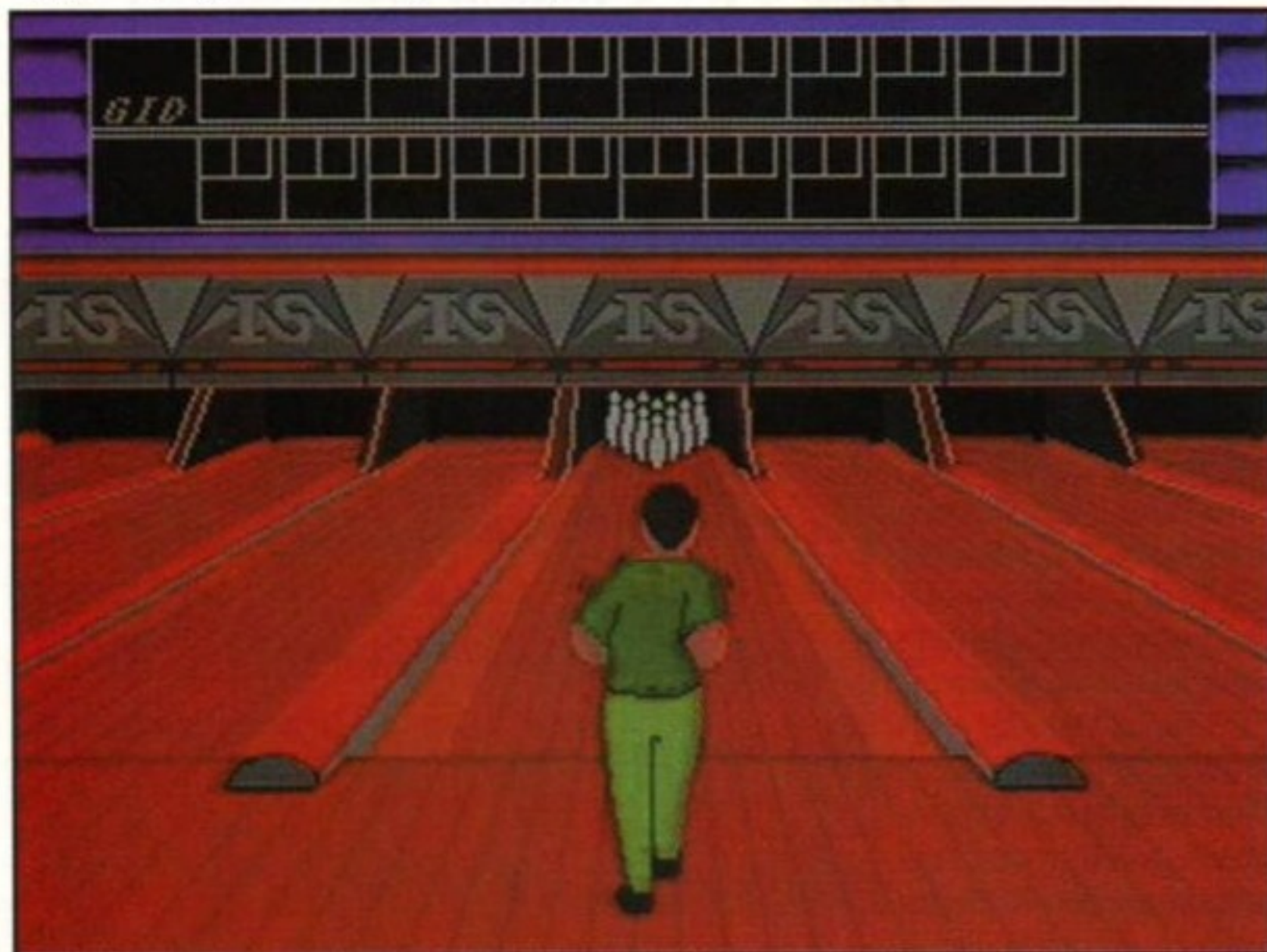
In the October issue of AUI I reviewed a game called "Strike" which was a ten pin bowling simulator. I said at the time that it was the only bowling simulator I had seen on the Amiga. Ian Curtis, the author of another pointed out to me that I had missed his tenpin simulator.

His game is called Tenpin and even though it is still quite a basic simulation, it is still more complex than Strike. Thinking about it, how can a bowling simulator be complicated anyway? Surely all you do is throw a ball at some skittles? Well no, in real life it is slightly more difficult. After positioning your player to exactly where you

want him you press the joystick button. You now decide on your balls speed and direction. This is a skill to be mastered, and to do this you must press the button twice. Two small sliding graphs appear.

The first is the direction, and the second is the speed. Stopping the first bar in the centre will make your ball go straight, if you want your ball to go slow then stopping the second bar quickly will do the trick. This is a better game than Strike and I apologise to Ian Curtis for not reviewing it before now.

**80%**



GIDEON OVERHEAD  
You were born on Tuesday 19th October 1971  
Tuesday's child is full of grace  
You will be 8766 days old on your next birthday

## WORLD NEWS

SOUTH AFRICA - Surgeon Christian Barnard carries out the first Heart and Lung transplant. SPACE - American Astronauts go for a drive on the Moon in their Lunar Buggy. FRANCE - Riot police on the Riviera order hundreds of topless women to put their bikini tops back on. MOROCCO - King Hassan crushes a coup attempt. YUGOSLAVIA - Tito is re-elected for another term. RIMBLETON - John Newcombe beats Stan Smith in the men's singles finals. LONDON - The British government announces that helmets are to become compulsory for motorcyclists.

## FAMOUS PEOPLE

PETER TOSH "Jamaican Reggae Singer" born in 1944.  
JOHN LE CARRE "English Novelist" born in 1931.  
MICHAEL GAMBON "English Film Actor" born in 1940.  
SINITA "English Singer/Songwriter" born in 1964.

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MAGGIE MAY  
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GRAND NATIONAL: Ambush II  
HENS SINGLES: Reginald Doherty (UK)  
WOMENS SINGLES: Blanche Hillyard (UK)  
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## ASTROLOGICAL

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# BIRTHDATE HISTORY

John Devoy

If you have ever wondered what happened on the day you were born, this program may be for you. All you have to do is type in your name and date of birth and the program goes into action. The information can either be displayed on the screen or output to a printer. What is displayed is very interesting.

The world news is the first thing to catch your eye. I thought initially this was impressive, to have a different bit of news on everyday. However when testing this out I found that this was not the case. It turns out that the news changes every year!

This may sound ridiculous, and perhaps it is, but there simply wouldn't be enough room to create news items

for every single day for 100 years, as that is how far the dates go back.

Everybody is interested to see if there is anybody famous who shares a birthday with them. I was of course thrilled to know that I shared a birthday with the singer Sinitta, not! Other facts displayed include the present world leaders, current music and films, the cost of living, and various sports results. All interesting stuff but perhaps one day someone will compile an enhanced CD version with a news item for every day for 100 years, we can but wish! This disk can only be bought from the author for £6.

**90%**

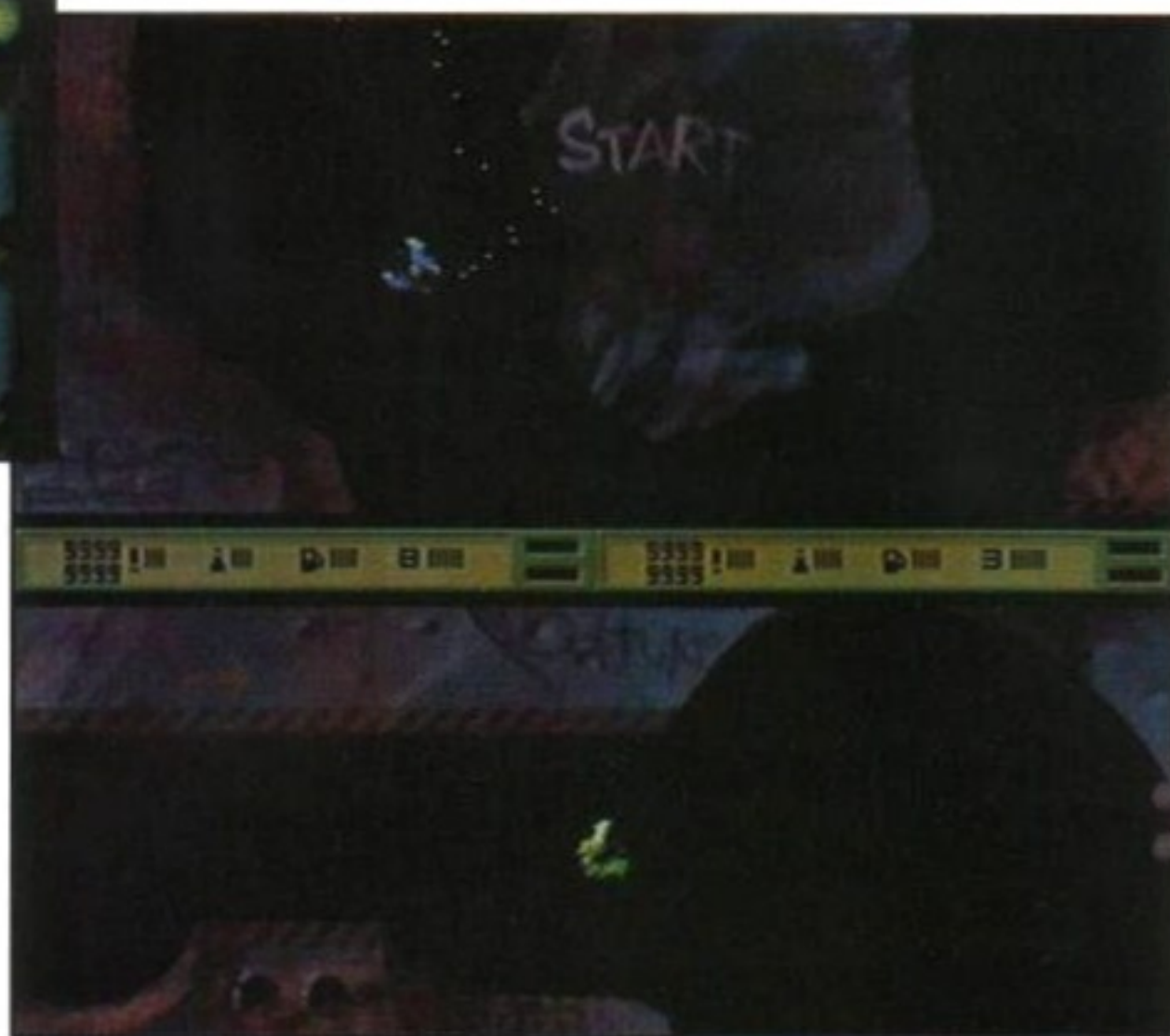




There have been a few more "Thrust" clones appearing recently. I have just reviewed Star Woids, we included Gravity Wars II on one of our recent coverdisks, and now there is Roketz. This looks more like GWII than Star Woids as it is a simultaneous two player, split screen affair.

It does have an original element which the other two don't have.

Instead of just flying around killing the other player, you also have to race around a circuit. The graphics are the most stunning aspect of this game,



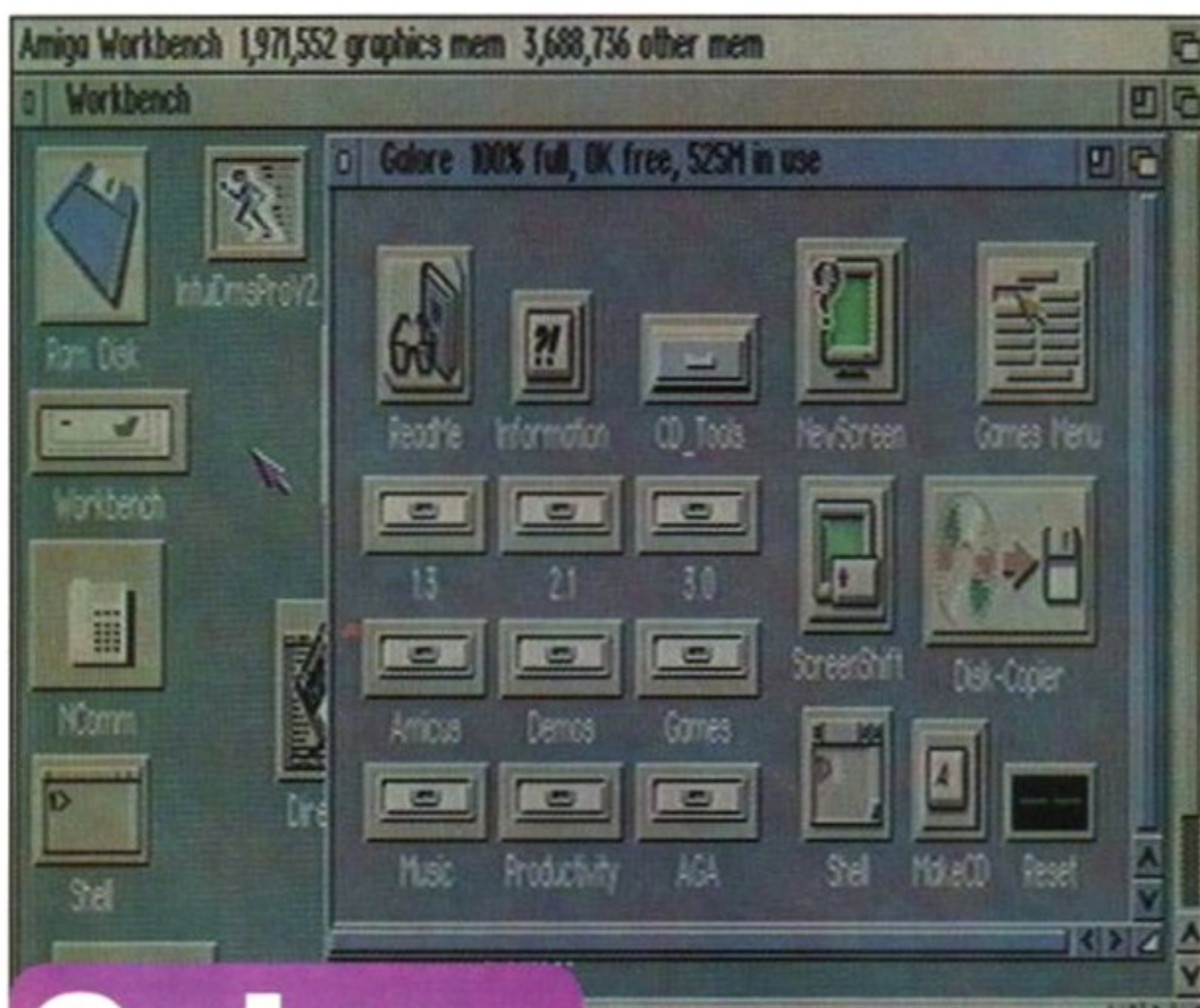
## Roketz

Online PD

closely followed by the game play. The main ship graphic is wonderfully animated. Every time you turn the ship around it pivots smoothly and a press on the joystick fire button fires the engines which make a very satisfying and different sound to what we usually hear.

Everything about this game says quality, it is also great fun to play. One of the most enjoyable features of Gravity Wars Two was the many different types of weapons for you to play with. This freeware version does have one or two special weapons, and the good news is that if you register the game you get a version with a whole lot more, well worth it I think.

**98%**



## Galore

Public Domain CDs are not released that often. The problem is that there is so much space available, if you own a PD library, you could probably fit your whole collection onto 2 or 3 CDs. Only a few PD companies have put out CDs. Seventeen Bit is one, and now Express PD have decided to release a collection.

Called Galore, it is split into 2 sections. Section 1 contains a menu interface with a search facility. There are 210 AGA PD disks and 350 of the latest PD disks. To use these you will have to have an external floppy drive

Express PD

**75%**

as a lot of the disks are archived or are non DOS.

The second section is accessible from Workbench and contains many useful utilities that every Amiga owner should have. These include Virus Checker, Ncomm, Super Duper and Twin Express. There are also a lot of Magic WB icons which look very agreeable indeed.

This is a very useful disk to own as it has a lot of excellent PD which has been hand picked for its quality, and at £19.99 is good value for money.

## Backdoor V2.81

Online PD

If you have ever been stuck when playing a game it can very irritating. You want to ask fellow game players how to solve the problem but very often there is no one to turn to. You can buy cheat books in the shops but when new games come out these are not included.

What do you do? Well, you can buy the PD disk Backdoor! This pro-

gram is essentially a big Amiga Guide file containing, it seems, almost every cheat and solution ever known. It is updated regularly so is therefore good to have. There were a few games I couldn't find that I wanted cheats for like Paradroid 90, but this is probably because there are aren't any available!

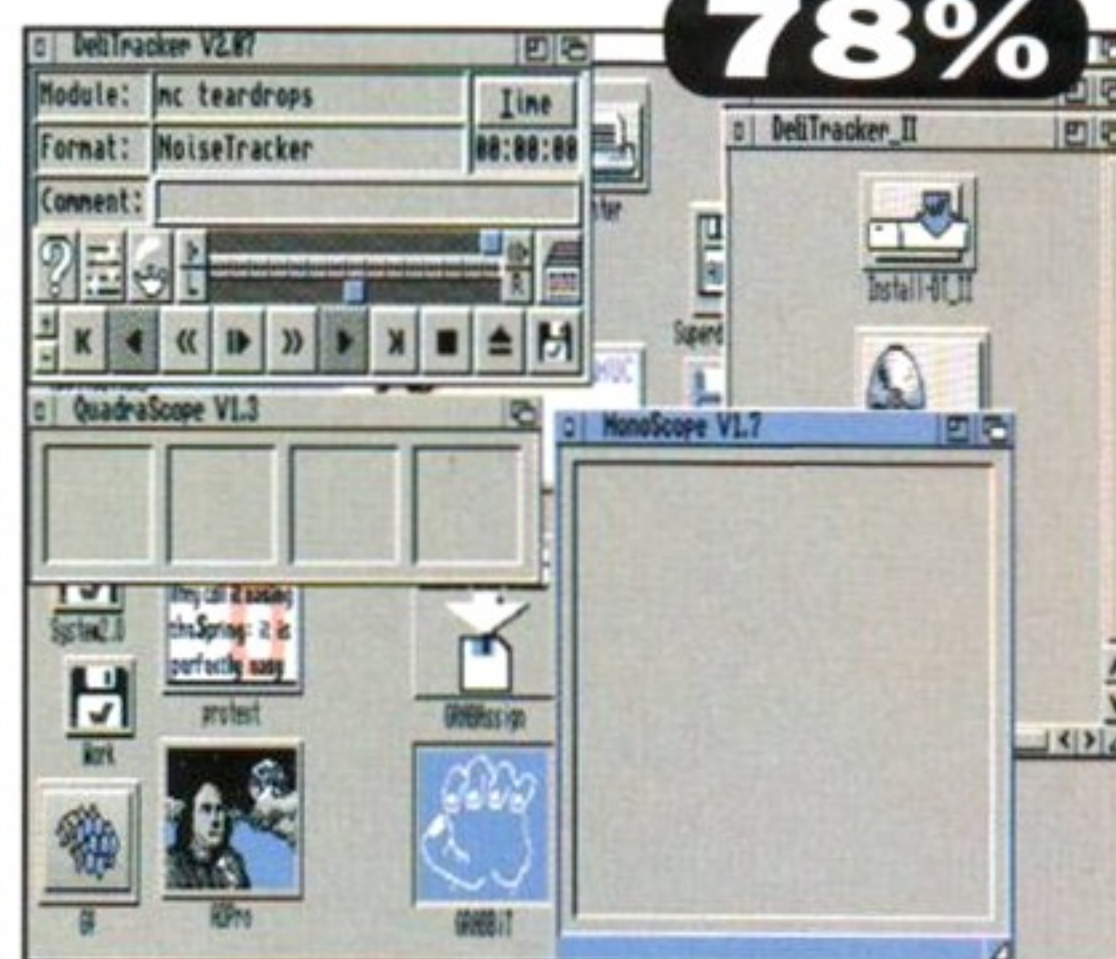
**80%**

## DELITRACKER

Disk 2.07 Scribble PD

There may be times in your life when you just want a simple Soundtracker program that will play sound modules and nothing more. Delitracker is such a program. It has a very user friendly GUI and works with most sound-tracker formats, but does require Workbench 2.+. Although Delitracker is very simple in design it is modular in that it includes several programs which add onto it to make it more powerful. These include an 8 voice note player, and a number of spectrum analysers. This is a great little module player which actually works and doesn't

complain all the time that it cannot load the module as it cannot recognise the format like some do.



**78%**



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## GAMES

☐ **18th Hole**  
(CAT 225 – 2 DISKS – NOT 1200). This is a very good looking overhead golf game. Good multi player fun.

☐ **3D Games Series**  
(CAT 849 – 1 DISK). Includes a brilliant 3D adventure game, which is absolutely huge.

☐ **Act of War**  
(CAT 267 – 1 DISK). A very good Space Crusade style strategy game with three missions to do, and an array of weapons.

☐ **Advanced Hero Quest**  
(CAT 1920 – 1 DISK). Let the computer be the game master, and provide the challenge. You need the board game to play.

☐ **Deluxe Galaga**  
(CAT 1974 – 1 DISK). A true classic as far as shoot em up games go, and fantastically professional with it. Re-live some arcade nostalgia now.

☐ **Diplomacy**  
(CAT 1909 – 1 DISK). A very competent computer version of that great board game.

☐ **Gnu Chess**  
(CAT 2042 – 1 DISK – NOT 500). A very good looking playable chess program. Easily one of the best around.

☐ **Golden Oldies**  
(CAT 1308 – 1 DISK). A wonderful collection of arcade classics from the early days. A good nostalgia trip.

## GAMES

☐ **Grand Prix 93**  
(CAT 2692 – 1 DISK). A surprisingly deep and highly involved management game.

☐ **Gush**  
(CAT 1209 – 1 DISK). This is probably the best version of Pipemania you can get. Very playable and very addictive.

☐ **High Octane**  
(CAT 680 – 1 DISK). This is a corking overhead car racer for two players. It's full to the brim with thrills and spills, and plenty of weapon pick ups.

☐ **Jellyquest**  
(CAT 2336 – 1 DISK). A sort of Q-Bert puzzler, and a good one at that. Quite bendish.

☐ **Klawz the Cat**  
(CAT 1735 – 1 DISK). This is a lovely cute platform game, with classic gameplay.

☐ **LCD Dreams**  
(CAT 1789 – 1 DISK). A collection of four old LCD hand held games revamped for the Amiga. Great stuff.

☐ **NO I Mine 1**  
(CAT 920 – 1 DISK). A clever Boulderdash game, with mind boggling puzzles.

☐ **NO I Mine 2**  
(CAT 454 – 1 DISK). More of the same, with tons and tons of frustrating levels.

☐ **Pop Quiz**  
(CAT 2250 – 1 DISK). Test your knowledge of pop history with this pop-tastic quiz.

## GAMES

☐ **Red Dwarf Quiz**  
(CAT 887 – 1 DISK). Test your knowledge of the TV series with this Dwarf-tastic quiz. It's very tough indeed.

☐ **Road to Hell**  
(CAT 565 – 1 DISK). Yet more overhead racing in yet another great game. This time you can customise your car as well.

☐ **Starbase 13**  
(CAT 1213 – 2 DISKS). This is an epic graphic adventure with lots to solve. It's very playable, and quite funny.

☐ **Survivor**  
(CAT 330 – 1 DISK). This is a pretty good RPG type adventure game. Simple in play, but hard to finish.

☐ **Tetren**  
(CAT 66 – 1 DISK). Tetren is a very good Tetris clone. It features a good selection of new oddities, and two-player option.

☐ **Mr Men Olympics**  
(CAT 1890 – 2 DISKS). This is a lovely game for kids. It features great graphics which match the original very well.

☐ **Total War**  
(CAT 1043 – 1 DISK). A brilliant version of the board game Risk. Six players computer or human compete, and battle.

☐ **Wizard Wars**  
(CAT 2959 – 1 DISK). This is a very polished RPG type board game. Quite involved and pretty tough to win.

## ASSASSINS

☐ **Assassins 3**  
(CAT 104 – 1 DISK). Megaball – great breakout game. Drip-polished Painter game.

☐ **Assassins 123**  
(CAT 173 – 1 DISK). Includes the excellent Artillerus 2 which is brilliantly addictive, and for up to eight players.

☐ **Assassins 114**  
(CAT 185 – 1 DISK). International Cricket is on here, and so is Insectoids 2. Brill.

☐ **Assassins 95**  
(CAT 286 – 1 DISK). Includes two football manager games which are quite different from each other. Very playable.

☐ **Assassins 133**  
(CAT 1139 – 1 DISK). There are two great Columns type games for you on this one.

☐ **Assassins 138**  
(CAT 1348 – 1 DISK). Includes the unmissable game Scorched Tanks. Totally addictive, and great multi-player fun.

☐ **Assassins 128**  
(CAT 1632 – 1 DISK). Three brilliant versions of some arcade classics. Includes: Space Invasion, Deluxe Pacman and Solar System Wars.

☐ **Assassins 139**  
(CAT 2282 – 1 DISK). Includes a good fruit machine game, and weird breakout.

☐ **Assassins 135**  
(CAT 2442 – 1 DISK). Has a brilliant Backgammon game.

## MUSIC/DEMO

☐ **Fairlight 242**  
(CAT 2781 – 1 DISK). Contains a very long video sequence set to the usual techno type music.

☐ **9 Fingers**  
(CAT 383 – 2 DISKS). An audio visual feast brought to you from Spaceballs. It's pop-video tastic and no mistake.

☐ **Arte**  
(CAT 562 – 1 DISK). A graphical extravaganza of a demo with funky-ironic music.

☐ **Attraction**  
(CAT 1243 – 1 DISK). A great music disk with some lovely thoughtful music.

☐ **Banging Raves**  
(CAT 213 – 1 DISK). Perhaps not rave exactly, but a good megamix of some classic tunes. A good mix of styles.

☐ **Banging Raves 2**  
(CAT 514 – 1 DISK). Another good megamix.

☐ **Basso Continuo**  
(CAT 1059 – 1 DISK). Ten excellent funky tunes are on here for your listening pleasure.

☐ **Doop Re-mix**  
(CAT 337 – 1 DISK). A good re-mix of that chart topping tune.

☐ **Gastric Ulcer**  
(CAT 2724 – 1 DISK). A good collection of some very hard rave tunes. Not for the faint hearted listener.

## MUSIC/DEMO

☐ **Gospel Karaoke**  
(CAT 10 – 1 DISK). It sounds unbelievable, but it is true. Karaoke Amiga!

☐ **Kaos Theory**  
(CAT 1114 – 1 DISK). It's rave-omatic Amiga time with some seriously hard tunes.

☐ **Multi Megamix 2**  
(CAT 2498 – 1 DISK). An almost commercial quality re-mix of some very famous tunes.

☐ **Piece of Mind**  
(CAT 980 – 1 DISK). A great 3D extravaganza demo with some very classy music.

☐ **Scoopex 2 Unlimited**  
(CAT 2241 – 2 DISKS). Good old Scoopex supplies 3 very well produced 2 Unlimited mixes.

☐ **Sequencial**  
(CAT 547 – 1 DISK). A roller coaster of a demo.

☐ **For Your Mind**  
(CAT 2462 – 1 DISK). Fast video, fast music, a really moving experience for sure.

☐ **State of the Art**  
(CAT 19 – 1 DISK). Ten classic demo. Brilliant visuals and a cracking dance tune.

☐ **Star Trek Rave**  
(CAT 2390 – 1 DISK). Is nothing sacred? Apparently not. A silly story with pictures which provides a good laugh.

☐ **Techno Tracks 2**  
(CAT 1664 – 1 DISK). Awesome music and some great visuals make this a must!!

ALL THE DISKS LISTED ON THIS PAGE ARE COMPATIBLE WITH ALL AMIGA COMPUTERS UNLESS OTHERWISE STATED

## USEFUL

☐ **600 Business Letters**  
(CAT 291 – 1 DISK). Lots of letters for lots of things.

☐ **Account Master**  
(CAT 1817 – 1 DISK). A good little accounts program to help keep your books.

☐ **Amibase Pro 2**  
(CAT 293 – 1 DISK). Probably the best database program you can get. Very usable indeed.

☐ **Astro 22**  
(CAT 2120 – 1 DISK). An excellent program to help with your astrological predictions.

☐ **Astronomy**  
(CAT 2847 – 1 DISK). Produces very detailed planetary information for astronomers.

☐ **Classic Utilities**  
(CAT 1863 – 1 DISK). A true collection of classics that you really should have.

☐ **Create Adventures**  
(CAT 1027 – 1 DISK). A very nice authoring program.

☐ **Crossword Creator**  
(CAT 2161 – 1 DISK). Takes the strain out for you.

☐ **Crunchers disk**  
(CAT 1227 – 1 DISK). If disk space is getting tight then this disk is definitely for you.

☐ **D-Copy 3.1**  
(CAT 2582 – 1 DISK). The best disk copier you can get.

☐ **Dynamic Skies**  
(CAT 1512 – 1 DISK). An amazing night sky viewer which is feature packed.

## USEFUL

☐ **Easycalc**  
(CAT 1042 – 1 DISK). Simply the best spreadsheet.

☐ **Edword Pro 4**  
(CAT 2071 – 1 DISK). A brilliant text editor which has a very good feel about it.

☐ **Forecaster**  
(CAT 607 – 1 DISK). If you're a betting man/woman, this disk could be up your street.

☐ **Grinder**  
(CAT 1249 – 1 DISK). A versatile screen converter.

☐ **Hyperdrive**  
(CAT 1116 – 1 DISK – NOT 500). Creates a protected RAM disk.

☐ **Mandelmania**  
(CAT 820 – 1 DISK – NOT 500). A very fast fractal generator with fast zoom in and out.

☐ **Mandelplot**  
(CAT 90 – 1 DISK). An excellent shareware fractal generator. Tons of fractal types.

☐ **Magnum**  
(CAT 2666 – 1 DISK). A good disk magazine creator.

☐ **Opti Comms 2**  
(CAT 2375 – 1 DISK). An excellent collection of tools for use with your modem.

☐ **PC Task 2**  
(CAT 1281 – 1 DISK). A working demo of this very good PC emulator program.

☐ **Planetarium**  
(CAT 1887 – 1 DISK). A simple program to display the position of the planets.

## USEFUL

☐ **Pools Tools 2**  
(CAT 442 – 1 DISK). A great rich quick program? Could be couldn't it?

☐ **PP Mini Crunch**  
(CAT 838 – 1 DISK – NOT 500). A user friendly interface for the excellent Powerpacker. Very nice.

☐ **Professional Utilities**  
(CAT 634 – 1 DISK). A very good useful and varied set of worthwhile programs.

☐ **S-I-R-D-S**  
(CAT 2214 – 1 DISK). Create your very own stereogram pictures and baffle your friends.

☐ **Start of the Art**  
(CAT 2317 – 2 DISKS). These disks are packed chockers with various graphics programs.

☐ **Starview**  
(CAT 1610 – 1 DISK). A night sky viewer which even marks out the constellations.

☐ **Text Engine 4**  
(CAT 1464 – 1 DISK). The best word processor there is. Very well suited to the Amiga.

☐ **The Money Program**  
(CAT 1811 – 1 DISK). An excellent home money monitor program. Very useful.

☐ **Utility Disk Maker**  
(CAT 2371 – 1 DISK). Proves very helpful for creating your own disks, serious or not.

☐ **X Beat Pro**  
(CAT 415 – 1 DISK). A very friendly music sequencer program. Very good for learners.

## ANIMATION

☐ **Animation Studio**  
(CAT 2406 – 1 DISK). A fantastic program to get you started in animation. Features the onion skin layering technique.

☐ **Boat**  
(CAT 933 – 1 DISK). A very nice animation of a typical English garden scene, with a boat.

☐ **Bond's Last Stand**  
(CAT 835 – 1 DISK). Bond cops it at last, and not before time too.

☐ **Beach**  
(CAT 1566 – 1 DISK). A great single screen picture postcard type animation.

☐ **Human Cannonball**  
(CAT 1599 – 1 DISK). An amusing story of how not to be a human cannonball.

☐ **Linus**  
(CAT 1018 – 1 DISK). A very original anim with a very good cartoon atmosphere.

☐ **Raging Hormone**  
(CAT 2780 – 1 DISK). Poor old hormone tries to pull a bird. He should know better.

☐ **Raging Hormone 2**  
(CAT 2473 – 1 DISK). That thick hormone just doesn't know when to stop. Very funny.

☐ **Raging Hormone 3**  
(CAT 2130 – 1 DISK). Hormone passes on what he has learnt to his son. What a shame.

☐ **Savings**  
(CAT 112 – 1 DISK). The post office savings advert quite a novel end. Funny.

## MISCELLANY

☐ **Communicate**  
(CAT 279 – 1 DISK). Learn how to communicate with sign language and many more.

☐ **Octamed Tutor**  
(CAT 2456 – 1 DISK). An excellent guide to getting the most from Octamed or MED.

☐ **Spectrum Emulator**  
(CAT 1446 – 1 DISK). Turn your Amiga into a 48k ZX Spectrum. A fast-ish Amiga is recommended though.

☐ **Speccy Classics**  
(CAT 498 – 1 DISK). A collection of classic old Spectrum games for use with the above emulator program.

☐ **Speccy Classics 2**  
(CAT 1499 – 1 DISK). More great games for emulator.

☐ **Speccy Classics 3**  
(CAT 2993 – 1 DISK). And yet more corks.

☐ **The Invisible World**  
(CAT 1786 – 1 DISK). A visual insight into the tiny world of microscopic bugs.

☐ **Titanic Cheats**  
(CAT 1031 – 1 DISK). Absolutely chock a block full of hints, tips and cheats.

☐ **Ultimate Cheat Disk**  
(CAT 2583 – 1 DISK). Another disk packed to the gills with game tips and cheats.

☐ **VIC 20 Emulator**  
(CAT 1087 – 1 DISK). Turn your Amiga into a VIC 20. Comes with tons of games. Needs a fast Amiga to fully appreciate.

## 1200 ONLY

A COLLECTION OF DISKS FOR THE AMIGA 1200 COMPUTER

☐ **Big Time Sensuality**  
(CAT 2215 – 2 DISKS). An audio visual treat of a demo with stunning graphics and an almost CD quality soundtrack.

☐ **Friday at Eight**  
(CAT 2033 – 1 DISK). A very fast paced demo with a really brilliant music track.

☐ **Full Moon**  
(CAT 1740 – 1 DISK). A brilliant demo with a spooky intro and a good pacey tune.

☐ **Klondike Deluxe**  
(CAT 782 – 3 DISKS). A patience card game with some very beautiful picture cards.

☐ **Maximum Overdrive**  
(CAT 2986 – 2 DISKS). A very long full motion video demo which lasts ages.

☐ **Megaball AGA**  
(CAT 842 – 1 DISK). The most popular breakout type game gets even nicer. A must.

☐ **Real**  
(CAT 2379 – 1 DISK). Possibly the best AGA demo to date. Totally awesome.

☐ **Relokick 1.4**  
(CAT 2918 – 1 DISK). Brings downward compatibility to your new 1200 to help get some of those old programs working.

☐ **Sleepless Night 3**  
(CAT 583 – 1 DISK). An essential collection of serious programs guaranteed to work on the Amiga 1200.

## THE EASYBASE CATALOGUES

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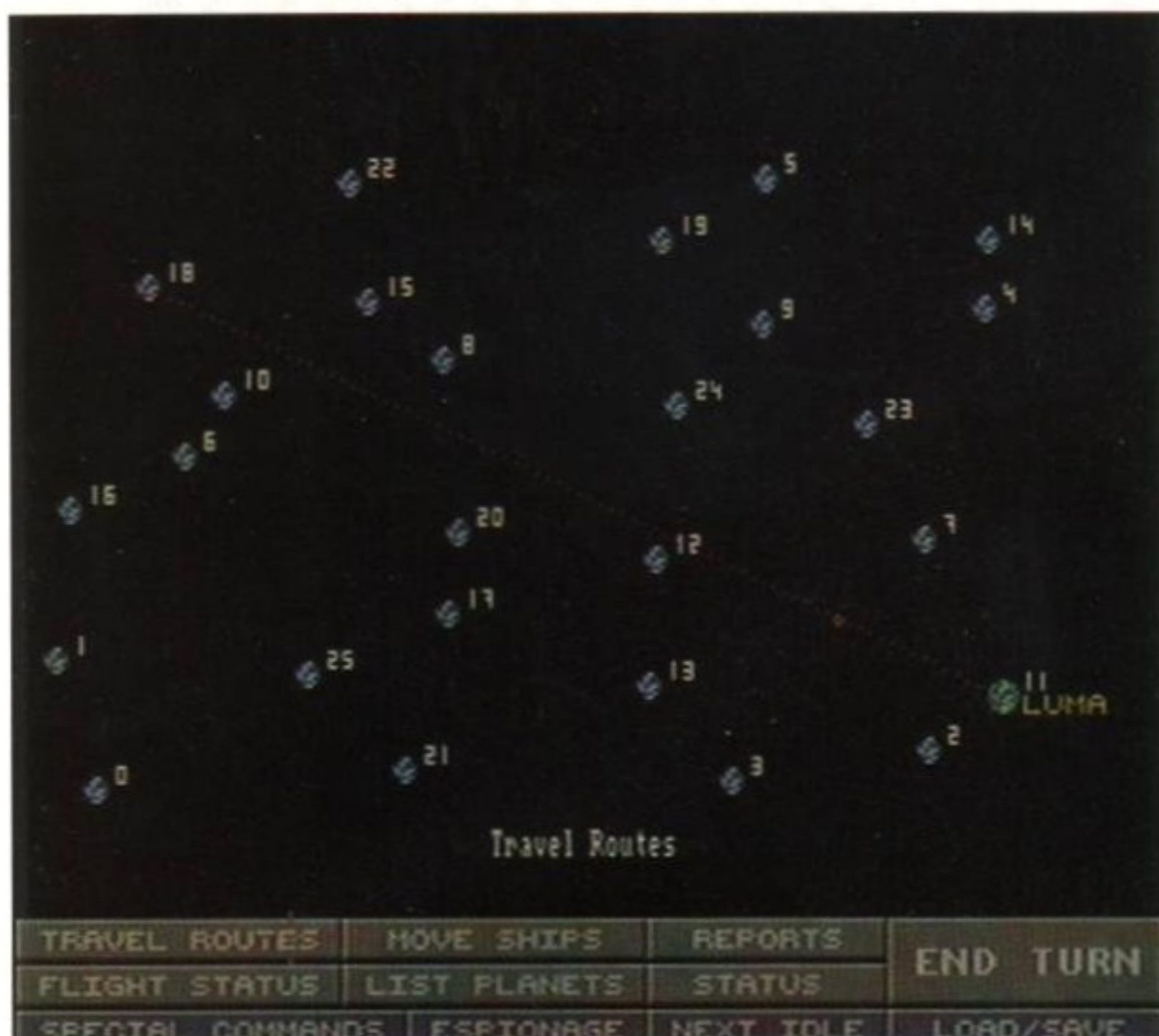
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## Colonial Conquest

**AUI Superdisk 50**

I've never been a big fan of colonisation programs I should say to start with. It's normally too long before anything happens. In Colonial Conquest you control a colony on a planet. The object is simple enough, to rule the universe, or at least the local 25 planets. But to do this you have to spend 'months' delegating your colonists duties like building food-robots and nuclear power stations to supply your

cities, so that the colony can gradually advance technologically until they are fit to build spacecraft and colonize other planets. Meanwhile your poor colony is being bombarded with meteorites, plagued by food bacteria and viruses and sometimes even attacked by rival imperialist starships.

For fans of space colonisation games this is probably a very good example. Dozens of choices as to what

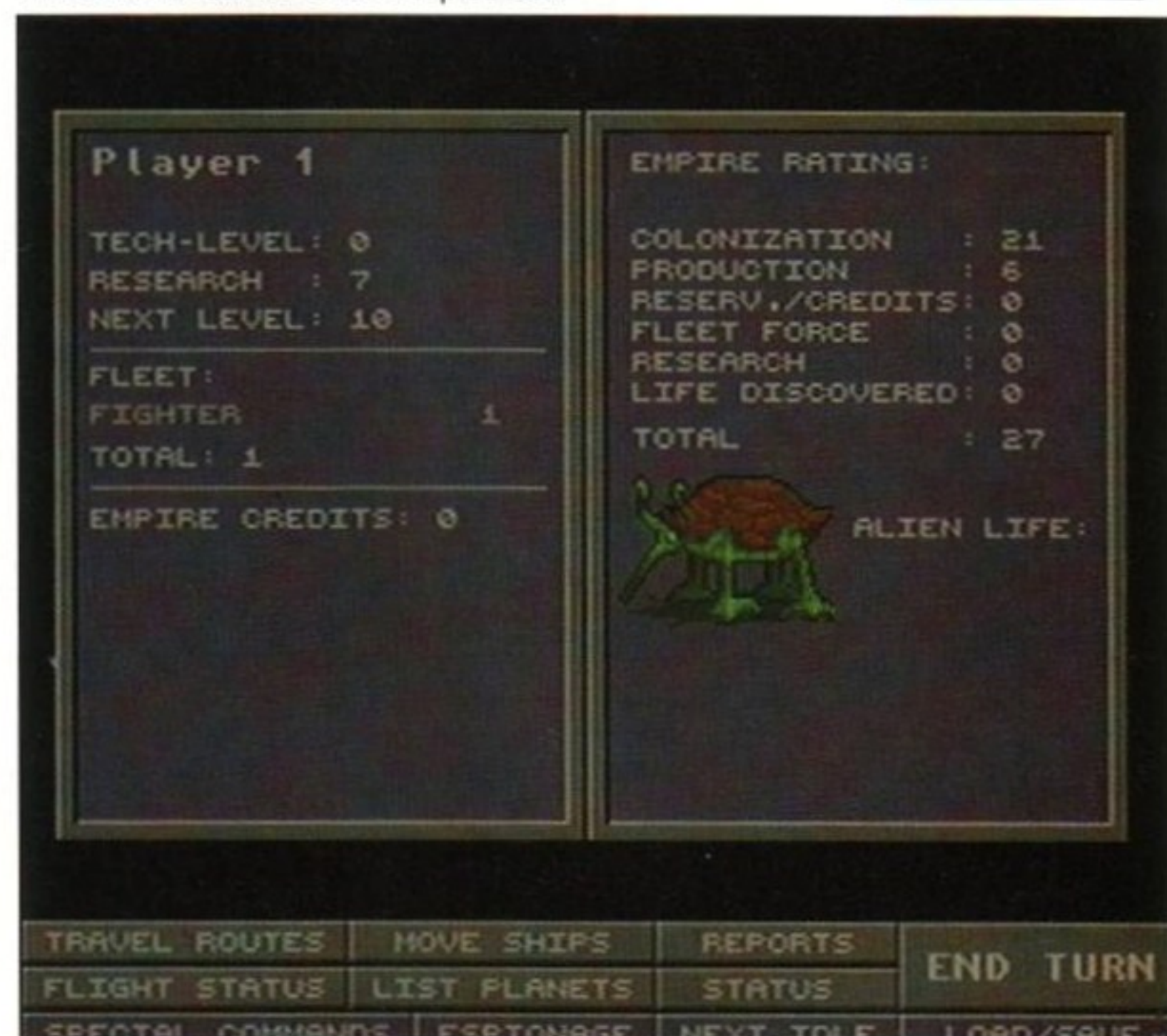
you can build in any given sector on a planet, unpredictable but feasible ravages of fate which can be soothed but not abated by taking precautions, such as building a medical centre to combat epidemics.

It can be fun flying off to other planets in spaceships and defeating competitors for control of idyllic planets or weighing up the Great Empire's message pleading for your excess food supplies and it can be fascinating watching your empire spread organically around the planetary system. But I miss some real-time action episodes.

I got as far as discovering a new kind of desert reptile on a local planet and being congratulated by the Great Empire before by fingers began creeping towards the Cybernetix disk again. For a PD colonisation game though this is consistent, many-layered and comprehensive, if not very visually stimulating.

Weeks of fun if you like colonisation style games, half an hour if you don't. You're either hooked or you soon get away.

**84%**



## Look Back in Anger

**Sean O'Farrell**

When most people think of PD they think of a disk with a program on it. Sometimes PD can come on a CD. Few people would expect PD to branch out to an audio tape release, but this is what has happened. I have received two audio tapes in the past two months with music that was created on the Amiga recorded onto it. The first is from Sean O'Farrell.

The music was created on an Amiga 1500 using Octamed V5. Of course you can only create a certain type of music on the Amiga without it sounding awful. For example, you wouldn't usually attempt a cover of a Whitney Houston song, it would be laughable. How can I describe this music? Well, it's like dance music really. It's of good quality and comes on a 90 minute tape. It is available through Bus Stop PD.

The second tape's music was created by James Matthews and is called Digital Sound Excursion. This is very similar in style and can be obtained through Roberta Smith DTP.

**70%**







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- F1-001 Magnum Pro
  - F1-002 Cricket Crazy
  - F1-003 Amos For Beginners
  - F1-004 Superfun
  - F1-005 F1 Music Volume 1
  - F1-008 (2) Blackboard V2.0
  - F1-007 Fortress (2 Meg Chip)
  - F1-008 F1 Music Volume 2
  - F1-009 The Rainy Day Disk
  - F1-010 Karate Master
  - F1-011 IFF Vector Ball Designer
  - F1-012 Obliteratives
  - F1-013 Through The Red Door
  - F1-014 Tots Time
  - F1-015 Spectra & All Square
  - F1-017 F1 Music Volume 3
  - F1-018 (4) Relics Of Deldroneye
  - F1-019 Touch 'n' Go
  - F1-020 Impact
  - F1-021 Multiplayer Yahtzee
  - F1-022 Ask me Another
  - F1-023 Pick 'n' Stick
  - F1-024 Maths Monkey
  - F1-025 (2) Art School V1.1
  - F1-026 Take A Look At Europe
  - F1-027 The States Of Europe
  - F1-028 CLindex V1.0
  - F1-029 (2) Aero-Die-Namix
  - F1-030 Fortress (1 MEG)
  - F1-031 Powerbase V3.30
  - F1-032 Word Power
  - F1-033 Powerplanner V1.1
  - F1-034 F1 Challenger V2.0
  - F1-035 (3) Chilly Chavez
  - F1-036 Money Cascade
  - F1-037 Super Bingo V2.0
  - F1-038 Ambassador Pro
  - F1-039 2 Can Play
  - F1-040 (2) Henry's House
  - F1-041 GP Manager '94
  - F1-042 (2) Magpies Kids Clipart
  - F1-043 (5) Magpies Clipart
  - F1-044 (3) Blackboard V3.0
  - F1-045 T-Tec-Maze
  - F1-046 Maze Madness
  - F1-047 F1 Music Volume 4
  - F1-048 Erik
  - F1-049 (3) AMOSZine
  - F1-050 (2) Absolute Beginners Guide To AMOS
  - F1-051 (2) Introducing Workbench And AmigaDOS (2.04+)
  - F1-052 Operation Firestone
  - F1-053 Wheelie
  - F1 Disk F1 Title £3.99
  - 1 Disk F1 Title £4.99
  - 1 Disk F1 Title £5.99
  - 1 Disk F1 Title £6.99
  - 1 Disk F1 Title £7.99
- The number in brackets after the disk code denotes the number of disks in that set.

## GAMES

- ROCKETS Great thrust clone
- DANGERMUSE Hunchback style platform.
- MASQUERADE (2D, AGA) Well drawn puzzler
- JINX (2D, AGA) The sequel, arcade puzzler.
- SANTA & RUDOLF Superb platform/shooty.
- STARWOIDS 2D, AGA) Fantastic, get it!
- MONOPOLY
- Very good graphics
- SEED OF DARKNESS 1MB
- Adventure Game
- LEAGE SOCCER CARDS Flight your way to the top!
- MOOBE DRIVE (AGA) Great fun, top down racer
- ANTWARS V1.9 Lemmings type game

## DEMOS

- COMPLED: PEWEE (AGA)
- ARISE: MELEE (AGA)
- SIGN OF CHAOS (AGA)
- FLYING COWS: LAME HQ (AGA)
- REDNEX: QUACKBUSTER II (AGA)
- IT CAN'T BE DONE (2D AGA)
- INFECT: PROMOTION (AGA)
- POLKA BROS: GEVELIA (AGA)
- SOME JUSTICE '94 (AGA)
- RUNAWAY BRAIN (AGA)
- ACHALLAMAHALLA (AGA)
- END OF THE MISERY (2)
- OXYGENE: CUZCO (AGA)
- MYSTIC: VITAL (AGA)
- ARTIFICIAL PARADISE (2 AGA)
- FLTND: LOVE (2 AGA)
- 7TH HEAVEN (AGA)
- WICKED SENSATION (2)
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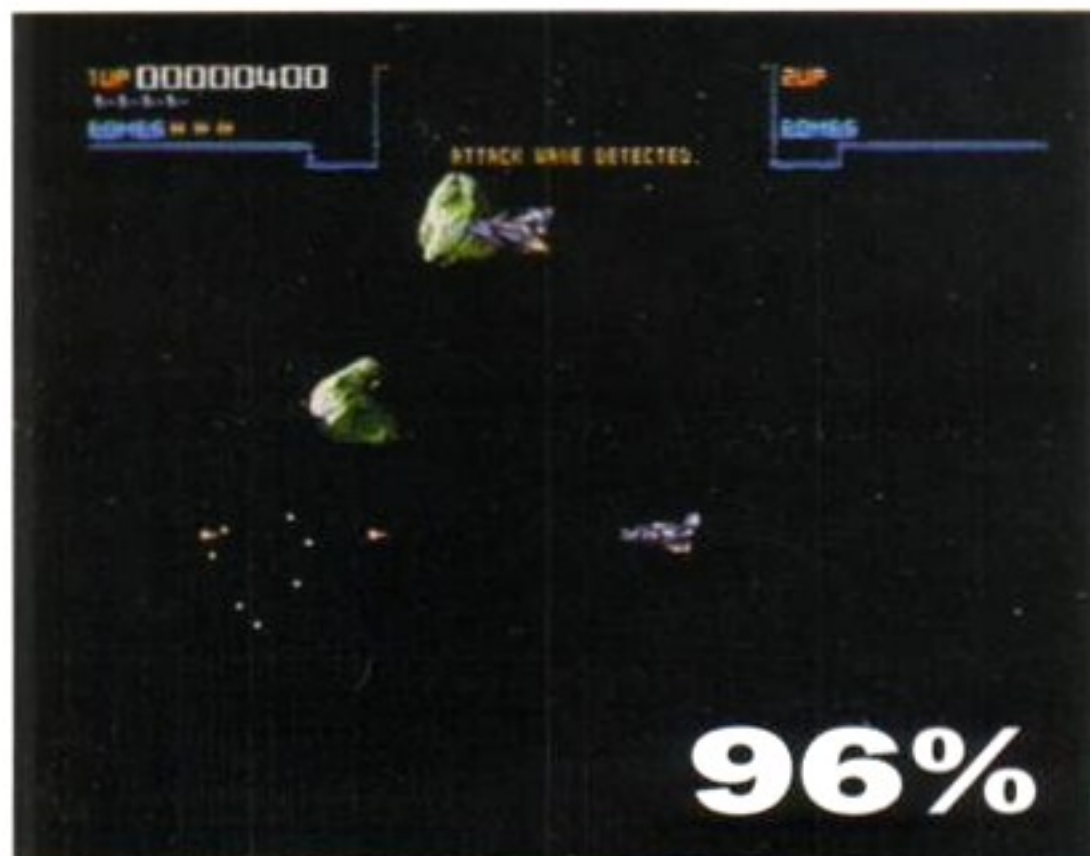
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## Cybernetix

**AUI Superdisk No.50**



**96%**

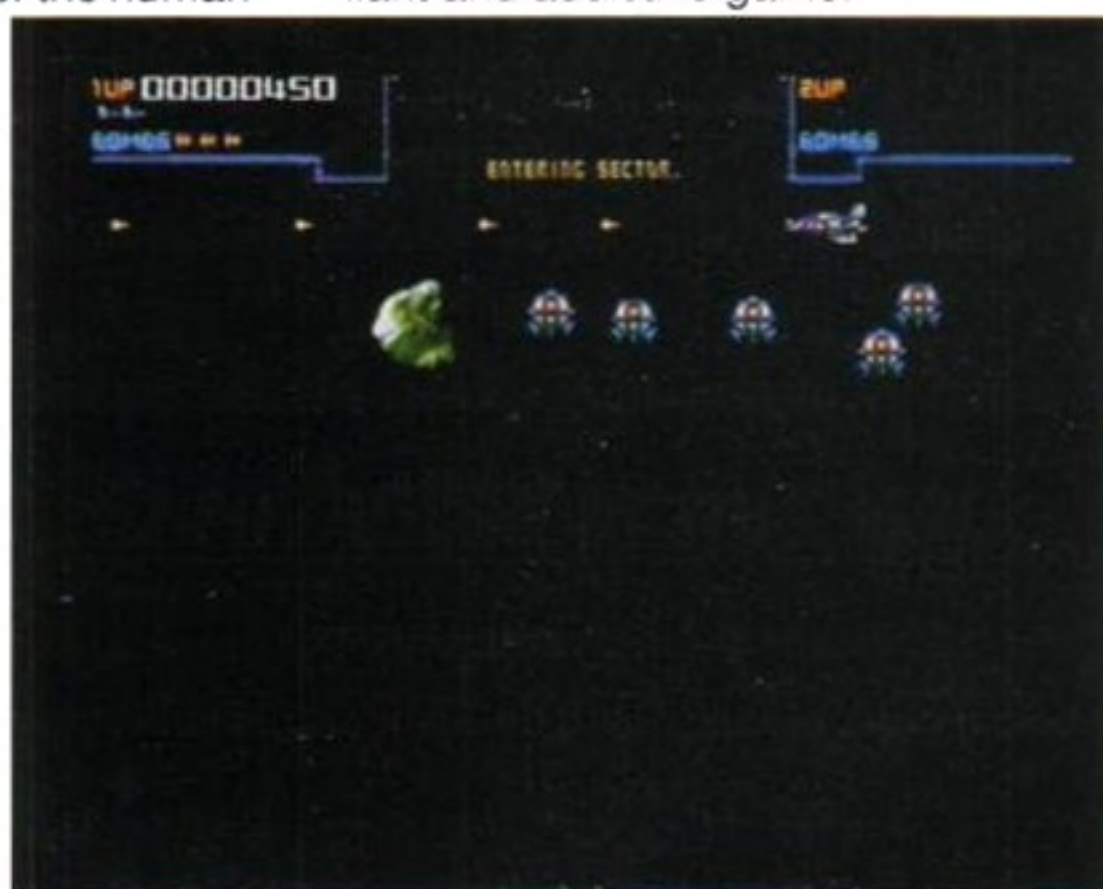
Remember Defender? You flew around the surface of a planet in your spaceship destroying evil aliens who were intent on landing and abducting your fellow humanoids. It was always a bit of a bind having to remember the humanoids. If you let them all be abducted, suddenly the planet's surface exploded and you were left defending yourself in space which was much more exciting. Cybernetix is similar to the planetless part of Defender, with a bit of Asteroids mixed in. You destroy asteroids to release crystals which you pick up for extra power points. But aliens are after them as well and you

have to kill them all.

The spinning asteroids look stunning, eerily three-dimensional, it's a shame to destroy them. The gameplay is fast and super-smooth and you can build up extra fire power and speed the further you get, which keeps it interesting. Swooping down to catch humanoids was one of the fun aspects of the original and you can still swoop around to catch crystals.

There's even the equivalent of the old smart bombs which nuke everything on screen.

Cybernetix is to Defender what Deluxe Galaga is to Galaxians. A brilliant and addictive game.



### Contacts for PD reviewed in this issue.

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PO Box 672  
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Birthday History  
John Devoy  
8 Glendale Drive  
Bishopbriggs  
Glasgow G64 1JU

Asgard Software  
20 Langdale Drive  
Flanshaw  
Wakefield  
Tel: 0924 363059

## Cyberpunk Now!

**Issue 3 Asgard Software**

This is yet another disk magazine, dedicated, as you might guess from the title, to all things Sci-Fi. I wouldn't say that it is particularly well compiled, but it has its heart in the right place. Done very much with the ethos of the 'net in mind, it does indeed contain much material derived from people's electronic comments.

There's information concerning many Sci-Fi films, including things

you'd never find out any other way. Did you know that there was in fact a film made of the remaining part of The Lord of the Rings? Ah, well...

There's also a guide to the films and TV programs that may interest you.

If you're a Sci-Fi fan, especially one not connected to the 'net, then check it out.

**74%**

## TUTANKHAMUN

**Disk CLE 63**

**Central Licenceware Registry**

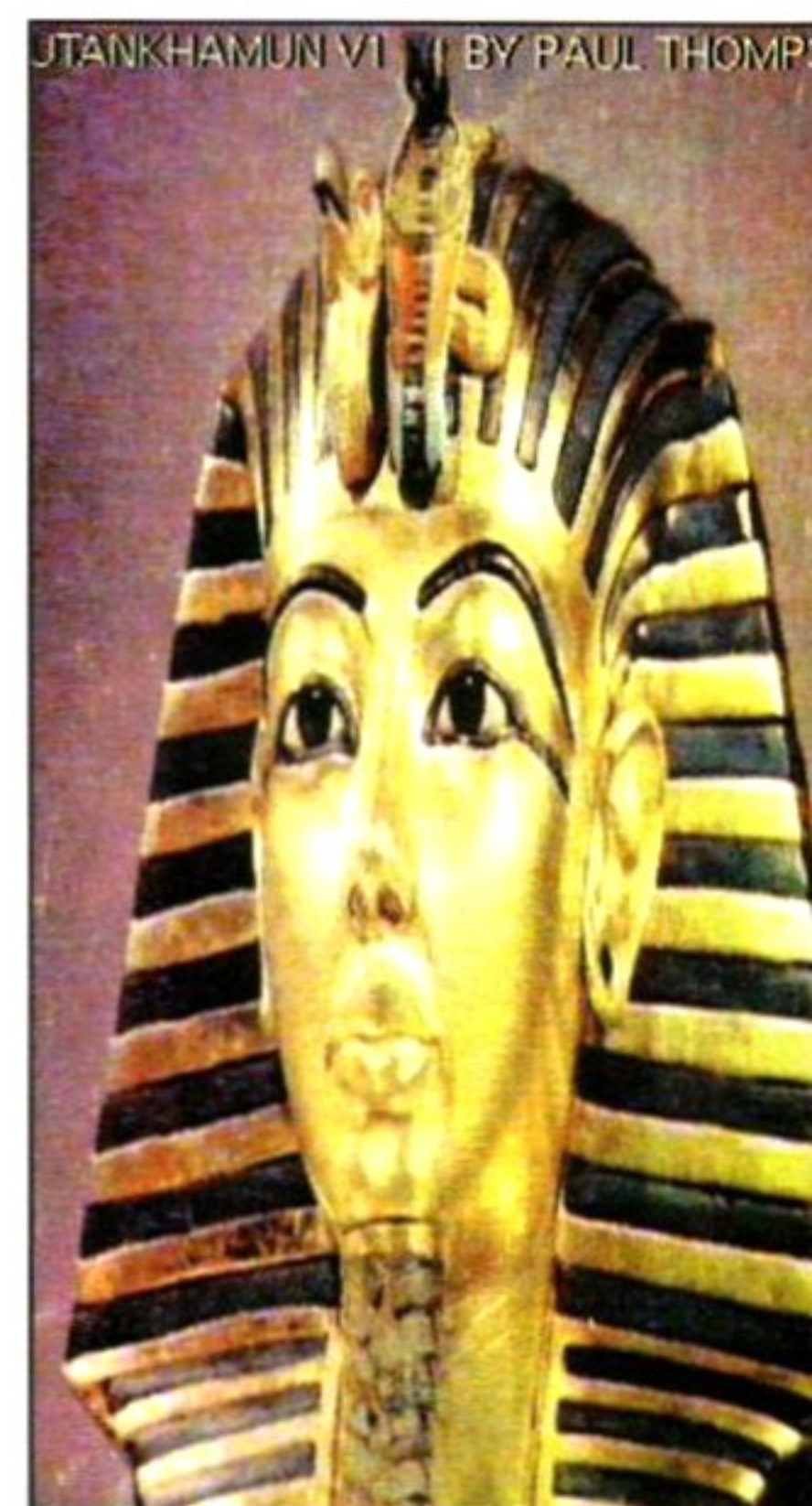
This disk is a slightly pricy PD piece, costing £5, but it's a rather good investment and does come on two disks.

As you might guess, it's about the Egyptian boy emperor, Tutankhamun. It is more or less a piece of electronic publishing, mixing graphics (which are quite well scanned, but do suffer slightly, because of the constraints of the non-AGA chipset) and text. There is also an option to listen to a music track as you wade through the history.

The author, Paul Thomson, has gone to considerable efforts, not only in the research of the material, but also in its presentation. The text viewer works well and looks very professional (reminding me actually of the similar commercial presentation "Dinosaurs" from Almathera).

Considering that commercial companies think this sort of publishing is the way forward, it's great to see an altruistic author beating them to it. The text is comprehensive and the pictures make good support material.

If you're a fan of all stuff ancient or Egyptian or if you are planning a topic, or simply want an approachable introduction, then this presentation is more than worth a look.



**85%**

*If you have created a masterpiece and you would like it reviewed here or if you own a Public Domain company and want to contribute new and interesting PD, please don't hesitate to send it in.*

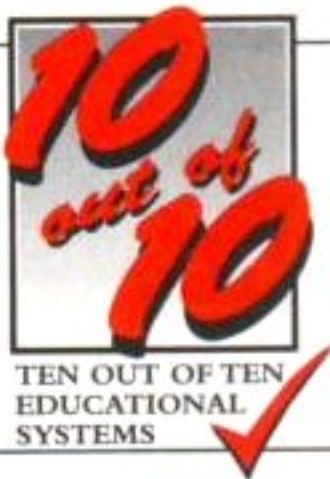
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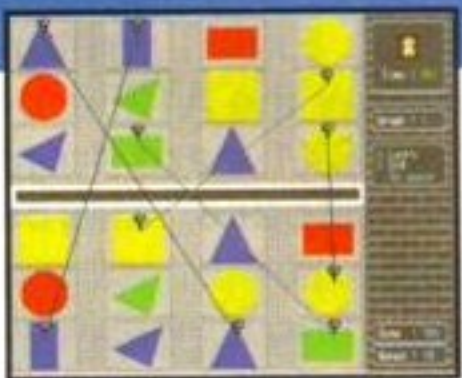
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# Write to Reply

## **Bud Vennos gets his wish - an extended postbag - more pages! But his temper hasn't improved. . .**

Dear AUI,  
In this day and age it is refreshing to find that somebody still exists that offers a superb service with expert knowledge and a caring attitude. I refer to the 24Bit Club in Scotland.

These guys are the best. They have helped me immeasurably with Opalvision, Imagine and some very serious problems with LightRave (and now LightWave). Please let your readers know about these guys.

If you are serious about 24 bit processing, get serious with the 24Bit Club.

A very satisfied 24Bit Club member who is wondering why you have never reviewed the club in your magazine!

Steve Calkin  
Essex

Dear Steve,  
Too often we get complaints about suppliers of products for the Amiga so it's a very agreeable change to hear someone is really satisfied. (I trust you are not a blood relation of Messrs 24Bit!)

It's by no means only the Amiga users that have the kind of trouble, especially with mail order people, that is worth writing to the Press about. It's not even only computers or even just mail order. It's pretty rare, in this country at least, that the enthusiasm, the dedication, the efficiency of anyone serving can be thought really impressive.

I remember when the first mail order suppliers started advertising in AUI. Everyone thought it was ridiculous. But as it was virtually impossible at the beginning of the Amiga's career on this country to get computer stores to stock Amiga products, it was the only way for Amiga users to get hold of the stuff they wanted.

By the time that the PC was being sold through mail order, the Amiga had opened the way - and many mail order people had come and gone. Recently we heard that one of the originals, Hobbyte had gone down. A great pity for everyone - especially the delightful Linda Craig, who was a major figure in Hobbyte and one of the few women in the Amiga business. It is probably a bit of fallout from the lack of Amigas available for anyone to sell. A sad state of affairs when there is a market for a computer and it can't be supplied. Still good on you 24 Bit and keep up the good work. (We don't review clubs!)

Dear AUI,  
Like your magazine, buy it every month. Love it, and the disks. Now to my query.

I bought the prog. Adorage AGA for producing the good effects it has for my videos, and without a shadow of a doubt it is a very good prog. And it is money worth spending.... except for one thing - the little booklet that one gets as an illustration of how to use Adorage, well my opinion - you can forget the book and the paper that it is written on. It would be better for wallpaper for the toilet?????

Why can't the big software houses like ProDad and all the rest, save their money on printing books that no one understands and instead produce a video about the software?? I bought the teach me video for Adorage and after following and working with the video there is now no looking back and the so called little booklet is hanging in the toilet, and a video is more user friendly, instead of bogging the house with useless bits of paper, you have a video that one

can watch and at the same time learn.

I would rather prefer to pay an extra (39.90 Swiss francs) for a video that I can learn from instead of reading a boring book that doesn't even start to go into all the detail of what the programme can do.

I wonder what your other readers think??????????

David Coutts  
Aargau  
Switzerland

Dear David,  
What a sensible idea - and like many sensible ideas, unfortunately not very likely to be taken up. (Though I recently found in a desk I'd taken over from someone else that there was a large box supposedly containing half a dozen miniature bottles of very exclusive scotch whiskies and a video of how such whiskies are created.

The box was there. So was the video. Strangely, the bottles, had gone. Odd, isn't it?

Some software has come with videos. For NewTek's Digipaint I seem to remember there was one. But NewTek are, of course, in the video business themselves. And there is, I understand, a plethora of videos for loads of different aspects of their LightWave.

But we are all overly-conventional animals and the medium of print is all too familiar to us for it easily to be given up. And if you have seen some of the videos I have which are supposedly professional. . .

But there is now no reason why we shouldn't see something much more effective than a video - an interactive instructional CD. Now that would be a leap up over the boring and incomprehensible manuals that we have all suffered. A really useful teaching aid.

What about a campaign? We should all write (make a video? CD?) and tell the Amiga product companies whenever we hear a new product is on the way that we won't buy it if it comes with a manual. GIVE US OUR VISUAL AID! OR ELSE NO SALE! What about it?

Dear AUI,  
I am impressed with your magazine. I get it whenever I can.

When do we get a game on the AMIGA, which does not favour only the PAL screen, but rather the more popular VGA screen? The PC fellows are just laughing at us for being for backward!! I know that the AMIGA is a TV computer, but the real thing to destroy the PC idols, is to get a 256,000 picture on a VGA screen... Work on it SIR!, thou shalt not be disappointed.

Finally, I have an idea to make us all a hell of a lot of money!! Maybe you will listen!! (maybe even approach CU Amiga, and Amiga Format, and do it together). Please rally up support for some of the people to put an advert into your mag, for all AMIGA users to send in \$10.00, to a software trust fund. I am sure that the circulation of your mag is more than just 500,000 a month. If you get about 35,000 returns, then you will have a neat \$3,500,000 in a trust fund. The next thing to do is to approach Microsoft, to get Excell written for the AMIGA, say the A1200, or CD-32 with an SX1 card from Paravision/Microbotics. Maybe Microsoft will like to learn about the 'NEW' AMIGA and then maybe a whole world turnaround will take place!! Think about it!! Pay them with some of the trust funds, then with some of the money left over, start marketing the Excell. Your magazine does well at marketing things right now!! Then sell, to all those that subscribed to the trust fund initially, at about \$40.00. Others will quickly send their \$10.00, so that they can also get it for only \$40.00. Of course, non-subscribers will have to pay \$100.00 or so.

Then start with other companies like Adobe, for Adobe Photoshop, etc. etc. If we cannot get the PC market to come to AMIGA, then let's take AMIGA into their playgrounds, and destroy their trust in the faithful, useless 640K machinery and show them what AMIGA INSIDE is all about - bloody hell - to hell with Intel Inside!!!! - stupid machine.

Spencer Sabatta  
Roosevelt Park

Dear Spencer,  
"Amiga Inside" - now there's a slogan that I'm not so sure about.

Why/ Because if we get to that,



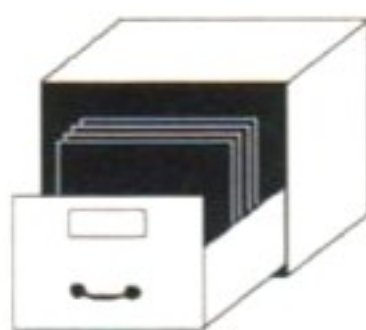
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# write to reply

c o n t i n u e d

we have to ask the question "Inside what?" Another computer? With no stand alone Amiga? Well, NewTek did do some of that with their Video Toaster, particularly when the names Commodore and Amiga lost their charm for US buyers. But if we get to that it may mean that there is no longer a single machine called the Amiga which most of us would think a great loss.

However, your idea of getting in enough cash to persuade Microsoft or any of the other leading PC software people to write for the Amiga is an admirable one. I like it. In fact I could get to love it. If all of you 500,000 - and that's an estimate that must be on the low side - **AUI** readers sent me the tenner, I'd hold the bank account until we could convince those PC people to do the right thing.

I'd have to travel personally to their Silicon Valley homesteads and it might take a few months... or even years. But I've got a lot of patience. And I have a rather well-developed taste for expensive hotels but I'm sure that sooner or perhaps later I'd be able to come up with something for the Amiga... a database maybe or a word processor... or a spreadsheet that would grab the business community by the throat and turn around their view of the Amiga.

The idea is great, Spencer, but as *She Who Must Nearly Always Be Obeyed* says when in one of my more fantastical moods I come up with a specially great idea, "OK but don't expect me to visit you in the hospital! Dream on!"

**Dear AUI,**  
Many thanks for all your efforts to fit the latest cover CD with CDTV compatibility. It is really appreciated - we often seem a forgotten minority.

N. Taylor  
Hants

Dear N. Taylor,  
You're welcome! Someone has to take care of the oppressed minorities of this heartless computer world. Let's hope we can help a few more. Any users of the Plus Four still out there? Shall we form an organisation to fight the built-in obsolescence merchants? Vive la CDTV!

**Dear AUI,**  
Software companies producing software for the CD32 seem to be on some sort of 'joy-ride'. They have a brand new toy and like a teenager in a fast car, are out to impress. And we are impressed, initially.

Friends from the Macintosh, PC and Console world (Mega-Drive etc.) are all amazed and distressed by the graphics and sound that the CD32 can handle. Everyone thought 'Microcosm' was excellent - until they began playing it. Everyone thought 'Oscar' looked great, until they found that they couldn't make out Oscar from the background and the background from the foreground and the foreground from other sprites. What sort of a game is 'Diggers' or 'Labyrinth of Time' or 'Heimdall 2' if you don't have a mouse? And so it goes on.

If games for the CD32 are to be made more popular than their competitors, software companies must stop the abuse of D32 technology in an attempt to get a sale on the merits of wizzo graphics and sound alone. Certainly everyone wants amazing graphics, prolific movie sequences, superb sound tracks and so on, but not at the expense of confusing controls, blaring colours, unreadable instructions, an ill-defined cognitive game model and careless affordances which the users are expected to make for themselves.

Of course, I speak from the older proportion of CD32 owners and may be less tolerant of these problems than school kids (who seem to manage much better than I do). However, if software and magazine companies continue to ignore even the most simple interface design considerations (particularly in the field of interactive multimedia production), such as high-resolution screens, clear graphical design with readable fonts then potential CD32 punters will start looking elsewhere.

If you don't learn how to handle and control your sports car before competing against your rivals sooner or later you'll crash.

Simon Crowle  
Dorset

Dear Simon,  
Now, listen here! Don't blame the magazine companies (A plague on all your houses!) We don't command the programmers to "Get on and masturbate with sexy graphics but forget about the gameplay, the suckers will buy it anyway!" That's not us, buster. It's the software companies who are failing to insist on real quality. But as I've said before - and no doubt will say again (I'm actually saying it right now, aren't I?) - it takes time for programmers to fornicate - sorry, dominate the medium.

It's not too difficult with the Amiga's hot little graphics chips to jazz up the look of something but it's not so easy really to make a stride forward into another dimension of quality in gameplay.

Let's face it, most games are pretty derivative anyway. Most people are too. There's not so much creativity around even in supposedly creative areas like programming.

But the same applies in almost any creative field. Look at films, TV, music, literature... Really DIFFERENT creativity is, as Mae West said of a hard man, good to find. And not very often found. Art is going barmy with "installations" because it doesn't know where to find creativity in painting. And in pop and rock, they have to put on crazy light shows because they are afraid that just playing music, good music, isn't enough to entertain the masses. Or maybe they are afraid that take away the light shows, the poverty of their creativity will be revealed like in the computer games without the graphics.

Computer games though may well bring out the worst in everyone. In the players - because so much of it is mindless violence - and what is sometimes worse, intelligent violence. In the software companies who churn out the least they can and charge the most for it; in the magazines, where illiterate, self-opinionated louts set themselves up as little gods and think they are doing something important in playing games for a living! And programmers are much more likely to take the easy way out and attempt to dazzle us with some gorgeous graphical nonsense and hope we won't get wise instead of really putting their potentially brilliant talents to work in creating something that would make the invention and creation of such an astonishing machine as the Amiga worth the plastic and energy and effort that has gone into it.

But maybe the trouble is that though you say the CD 32 owners may go elsewhere - they won't. Once you've bought a computer it takes an earthquake or a very considerable loss of faith to make you give it up. It's like love, once they've got you, they've got you - until the

next one comes along and once she gets you, she gets you..

**Dear AUI,**  
Having purchased my copy of **AUI** July 1994, I trundled off to my local Comet Store with CD in hand, hoping to find out if I had won an Amiga CD32. The Store Manager said he could not check it as his machine was broken, so I sent it direct to **AUI** at George Street still hoping to win, or receive Superdisk 40 in return. Imagine my thoughts when I did not receive a CD32 but a copy of Superdisk 40, not a GENUINE copy but a copy on top of Superdisk 35 with a white sticky label with SD40 written on it. Either you really ran out or I was duped.

Stan Slaughter  
London

Dear Stan,  
Slaughter us not, I beg of you! You did not win your CD 32 machine because the disk you sent in was simply not a winner. (Shame!) But we did send you - free, gratis and for nothing, I hope - the SuperDisk 40.

Now you complain that it wasn't THE REAL THING. What do you think we are selling Coca Cola? The disk you were sent contained all the programs and other delights that were on that SuperDisk No.40. Why didn't you get one of the original labelled ones. Aha! You feel cheated, tricked or, as you say, duped. Well, the reason is simple. We print a number of labels and disks which corresponds to the print order of magazines - an order that comes largely from the company, not us, who distributes **AUI**, and lots of other magazines too.

So when we get a request from someone like you whom we do not wish to cheat, trick or dupe, we take the trouble to copy the disk and place on it a virginal white label which we inscribe with the magic words (and numbers) Suopar Dosk Faulty O - sorry SuperDisk No.40.

Don't complain. It's YOU who have the handmade original. The others with the printed label are, common or garden, produced in millions. Treasure this unique example SuperDisk as having been created for you personally. Next time we might even have Gideon Overhead for it was probably he who created it for just you, sign it in his blood, or at least the red ink that flows in his computerised veins.

Someday that disk you have, that unique white labelled disk, could be very valuable and you may receive an offer in millions of pounds, dollars or even bytes, from the Getty Museum. Now that they have been denied The Three Graces they have to find something to splash their cash on. YOUR SUPERD.40 COULD BE IT! Keep it safe. Put it in the Bank. Hide it under the bed. Insure



it. Build a wall around your house to protect it from Donkey Kong robbers. Never let it out of your sight for a moment. Keep it close to your skin, warm it inside your Y-Fronts.

You have an original! Wow! Wow! WOW! Don't complain. You have not been tricked or cheated. You are not a dupe. You are one very, very lucky User! Kneel and pray your thanks to Freya, the Norse Goddess of Sex on Fridays for that was the day the ORIGINAL was sent to YOU alone!

Dear AUI,

Do you do this on purpose, are you trying to start a fight between my friend and myself, or is it some devious marketing ploy. Between my friend and I, we purchase several (o.k. eight) Amiga mags a month (mainly through subscription). This selection means that all tastes in the two households are catered for, the serious sort of stuff for the older persons and the games for the younger members (all right for the older ones as well).

The problem arises because while my friend has access to a CDTV, a CD32 and a 1200 (which is also used for business purposes), I on the other hand only have a 1200 (which of course is a great machine) and it is here where trouble occurs. What should we do, unfortunately that shiny CD thing does not fit inside my disc-drives and is therefore of no apparent use to me? I therefore want to explore disk 40, but, as you may guess my friend (if I should still call him that for keeping me from disk 40) wishes to keep the CD. How then can I get a copy of disk 40? I do not want to have to buy another copy of the magazine as this negates any benefit from shared purchasing of a large number of magazines (not just Amiga mags). Maybe I should get a new friend?!!!!!! But, who could I find with my diverse tastes in reading material. NO YOU must do something, not just to help me but for all of those other Amiga fans who want disk 40 or in fact any other cover disc without having to take a shiny saucer to some High Street store.

We await your move.

David M. Herriott  
Coventry

Dear David,

Yes, of course, we do it on purpose. We are well aware that you computer users have few friends and we want to cause trouble between those and you. "Split them up! Their only contact is with machines!" That is the order we receive from our Fuhrer. (Here I put my finger to my nose - no, not up my nose - but across it to mimic the shorrrt blacck mustache of the Editor und raise mein right arm in a ferry nasty sa-

lute. Ja, mein Fuhrer, I cry. Ve must haf more CDs and cause major pain among the so-called friends out there! Jawohl! And similar Franfurtian expressions shouted while filling the mouth with sauerkraut and banging bottles on the table.)

Only for you, liebe David, ve vill send or possibly already haf sent, if Herr Doktor Gideon von der Oferkopfist on the ball, Disk Numero Fierstig (AKA No.40) so that you do not haf to kill your freund off and rippoff from him die disk you so desire.

As Eva Braun always used to say "Use it in good health and may your disk drive with a wood never crash in der bunker!"

And why vas you David sent to Coventry, eh? Nobody liked you then either?

(And for anyone who hasn't heard the news, we will always replace the CD with a SuperDisk. Haven't I said that before sometime?) I'm two disks short! (what about next month? Arrrrrrg!)

Dear AUI

I've just read a recent THE AMIGA DIMENSION in the issue of AUI and I agree, it was very sad, equally as sad was the fact that I had read about this in one of those so-called "Corporate PC Newspapers" four weeks earlier and not in any kind of Amiga related publication. The blood-sucking PC press have ignored Commodore and Amiga for as long as I can remember and only choose to mention them when it looks like they may disappear forever. Never mind all that rubbish about Commodore's poor advertising and lack of direction, they'd have known what Commodore were doing and they'd have known exactly what an Amiga was. It's just a case of no Microsoft, no mention.

In the Amiga Dimension you touched on one of the articles they ran but chose not to print it in full. You should have done, so the people out there could get a taste of what the PC community is really like, full of contempt. Instead of printing stories about the death of Commodore with hypercritical headings like "In deepest sympathy" and "It is with regret we must inform you" they could have tried to stir up a bit of interest by telling their readers about the new A4000 Tower, not leave them wondering... what's an Amiga? Even in Commodore's darkest hour the PC press still writes with the same ignorance they've had since the first day the Amiga was released. Quote: "enjoyed success in the games market". I think its success stretched a lot further than the games market but they wouldn't say that would they? Of the CD32, she (the

reporter) said, Quote: "Amiga-based game console which can be upgraded to play digital CD's" when she should have said it's probably the only console that DOESN'T need to be upgraded to play digital CD's.

These two bloopers came from an article that did try to explain why Commodore had fell on hard times and they even chucked in a colour photograph of a brick wall with the Commodore logo on it, but still no mention of the Amiga's capabilities. I truly believe the Amiga would be in a far stronger position had the PC press given people the chance to make up their own minds. After all, PC means Personal Computer not just IBM-compatible.

Before I clear-off I'd just like to thank all the AUI staff (especially Antony Jacobson for all those heart-warming Amiga Dimensions) for providing me with a really worthwhile magazine that I always read end to end no matter what the contents may be about.

Old Manchester proverb says: PC is like new Stanley blade, but soon it will lose its edge, so it throw away and buy new one!

Dave Simmons  
Manchester

Dear Dave,  
I sometime wonder if my faith in the cock-up theory of history as opposed to the conspiracy idea is right. Certainly when we read the kind of reporting on which you comment, it is possible to think that THEY do set out to get US. But quite a lot of the time simply what seems obvious to us is, largely through their own ignorance, unknown to them.

Those articles were so superficial that what they revealed was the inability of much of UK journalism to have any real idea of even what purports to be their own field. The Video CD blooper was typical of it especially in regard to the Amiga.

When you think that the machine has been around for about ten years and sold some 7 million you would have thought that these so called computer journalists would have got at least the simple facts right but time and again they have misinformed the public.

The problem has surely been partly due to as you say, essentially, no Microsoft - in other words not PC - no story. The failure to the until recently poverty stricken scope of the PC has contributed to what really in technological terms is a global confidence trick in making it the standard for business and increasingly now, home computing. A concerted effort on the part of the computing press to educate the public might have made them a bit more resistant to the con. But unfortunately now it's too late. Like the VHS defeat of Betamax, it isn't al-

ways the best that wins out.

Nevertheless, the Amiga has made its mark on the history of technology of our time. Many of us have not bought the con and will always owe a great deal to the Amiga. And nil desperandum, it isn't dead yet. Nor is the last word spoken on the PC.

Old London proverb say: "Nothing lasts forever - not even bad things like computer cons."

And the Editor and the rest of us thank you for the kind words. (How much did his mother pay you?)

Dear AUI,

Just a note to complain about people who complain about the CD32. I'm just fed-up with them complaining it is only for playing games and not much in for DTP etc. The whole idea for the CD32 in the first place was to make it the ultimate games machine, as it is. Also it can play audio CD's and F.M.V films, which is a hell of a lot for just one machine. If people want DTP etc. then what about the A1200 with the CD1200 (another great machine). If a few people don't like the CD32 then they must be the sort that complain about everything just for the sake of it.

The CD32 is a fantastic machine and I could not ask for anything else. Your mag and cover CDs are great, keep up the good work.

Andrew Kelly  
Isle of Man

Dear Andrew,  
You're right - like so many AUI Write to Repliers! The CD 32 was sold, and probably designed, as the ultimate games machine. The SX-1 does give it a bigger role if that's what's wanted. But its talents, including the ability to play FMV, make it a real advance that no other machine can match for anything like the same money.

The 16 Bit Philips CD-i is spending loads to make out that it is something special but the CD 32 loses it.

The CD 32 is an achievement that should receive its true reward and we all hope it will get it. Don't forget the knockers took it out on the Amiga itself at the beginning and had to eat their words. They may have to with the Amiga CD 32 as well.

Dear AUI,

Are you aware of the "hidden" advantage of your free Amiga CD magazine discs? I own an Amiga 1200 which I use for making titles on home videos, and after listening to your CD cover discs on my Hi-Fi, realised that many of the tracks could be used in video production.

Even 10 seconds of sound can be used as "fill-ins" or in scene changes.



# write to reply

c o n t i n u e d

I have used several tracks taken from discs 1 to 3 for this purpose and was wondering if they are copyright.

Is it possible to give any information in the mag as regards track name, playing time etc. or maybe include tracks on the CD specifically for video users?

Keep on the right tracks.

Dave Roberts  
Liverpool

Dear Dave,  
I love hearing about "hidden advantages" of anything I am involved with. More people should certainly be made aware of the "hidden advantages". Although would that then make them no longer "hidden"?

Yes, you are right the material on the discs is copyright but there is also the question whether the use of such material invades the copyright. No-one has figured out, and possibly never will be able to figure out, all the complexities of electronic copyright. One reason is that most of the rules were set for the far simpler medium of print. It was not so difficult to see if a copy had been made of a printed document when the means of printing were expensive to obtain. When the photocopier came along that all changed.

With computer-style media it's even more complicated. When is a copy not a copy.. And when can you use a copy without breaking into someone's copyright? Don't ask me for the answers but recently I heard two top legal firms give presentations on the subject without being any the wiser except to realise that the lawyers are rubbing their hands in joyous anticipation of lots of big, big fees coming from copyright legal battles.

As for the music on the discs, if you are going to use it for your own domestic purposes and in no way benefit commercially, I'd guess that no-one would mind you using it. After all, if you decided to use, say, a Beatles song as the background for your home videos, I don't think Paul, George and Ringo will come knocking on your door. Now if you try sell your video though, probably even John would rise up from the grave and come a-haunting.

Dear AUI,  
What the f\*\*k is going on? If I wanted to read a magazine about

'phones I'd buy Phone Fetish Monthly not an Amiga magazine. In your August issue over 22% (15 pages) of the mag are given over to complete crap, 13 pages of phones and 2 pages of quotes from sycophantic readers. In the rest of the mag pictures and screenshots are as large as possible so that you can get away with as little text as possible. Amiga Answers has its usual crop of questions from people who can't read the manual and your games reviews are about 2 months out of date.

Does it take one, or two afternoons to cobble this crap together? My money is on one with the morning being spent reading the other Amiga mags to collect ideas!

I very much doubt this letter will see the light of publication in your mag, but I'd appreciate your comments personally if you'd like to call me on my mobile (0836 263468)!

Here's a good idea for your next issue. Tell us something that wasn't in Amiga Format two months ago.

Derek James

Dear Mr James - or may I call you "De Wreck?"

Sometimes we are lucky and think of all the thousands of readers all over the world who go out each month and spend their hard-earned cash on our home-made Amiga fanzine. It keeps us warm at night when we shiver in the Arctic storms so frequently suffered by London.

At other times, we are unlucky and get some sorehead know-nothing who doesn't have the gumption to understand that even for the most dedicated Amiga user - except him - there are other aspects of the world, especially in the technological domain, that are not only of interest but may well become very important. Which of those categories, De Wreck, do you fall into? If the second, one must hope the fall you take will not be a soft one for you sound as if you think a great deal of yourself and not much others. Those who who write to Uncle Andy Eskelson are trying, in general, to get help. Have you ever tried helping someone else, De Wreck, who made need a little aid - instead of insulting them?

It does not, as even an airhead like you must well realise, take even one afternoon "to cobble together" this ancient and, believe it not, well respected magazine. It takes years. As the surgeon said when questioned about his bill for £1000 for an operation that took 15 minutes. "£25 for the operation and £975 for the 25 years to learn how to do it."

It hasn't taken 25 years for us, though there are far more, in fact hundreds of man/computing years which have been expended by the AUI team in "cobbling together" the Amiga experience. Each magazine is a distillation of a tremendous amount of expertise, which if you had a brain in your head instead of a pot of bile, you would realise has produced a team of editorial contributors that is unrivalled in any Amiga magazine today. That may be why we get letters from all over the world, month after month, that we don't print, telling us just that.

And that is, of course, without giving the true credit to all the others who contribute in many ways to putting out a magazine which interests, month after month, thousands of readers and of which, on occasion, we have reason to be a little proud. And you would do well to remember we didn't copy from any Amiga magazine. AUI was the first in Europe. The rest copied from us.

AUI isn't shut up in a plastic wrapper. You can open it up before you buy and see what is there. If, as you appear to be a fan of the more sordid and perverted type of magazines, choose them. No-one forces you to buy AUI. And indeed you sound just the sort of person to whom, if we could, we would have newsagents refuse to sell a copy of our esteemed organ. You would probably only use it as a cover for fetish rag.

If you cared to read AUI instead of just gaping idiotically at the pic-

tures you would find that our in depth coverage is far from being a rip off of any other mag but much more instructive and original than anything to be found elsewhere. Do you really have the crass nerve to compare us with magazines that fill their pages with games? No doubt you can do little but look at the pictures in them too. Have you the spark of intelligence to notice the number and size of repetitious games screen shots - the frequent "reviews" of games that are not even finished? And have you flicked over the supposedly clever design concepts that cover the pages with huge headlines and the "in house" ads that fill the pages??

There is sometimes a debate at AUI on whether we don't pack our pages too full and certainly compared to other, purportedly more stylish magazines, maybe we do. But it is in the search to give you - sorry not you, you wouldn't appreciate it - but the more intelligent Amiga user, the reader of AUI - the best value possible.

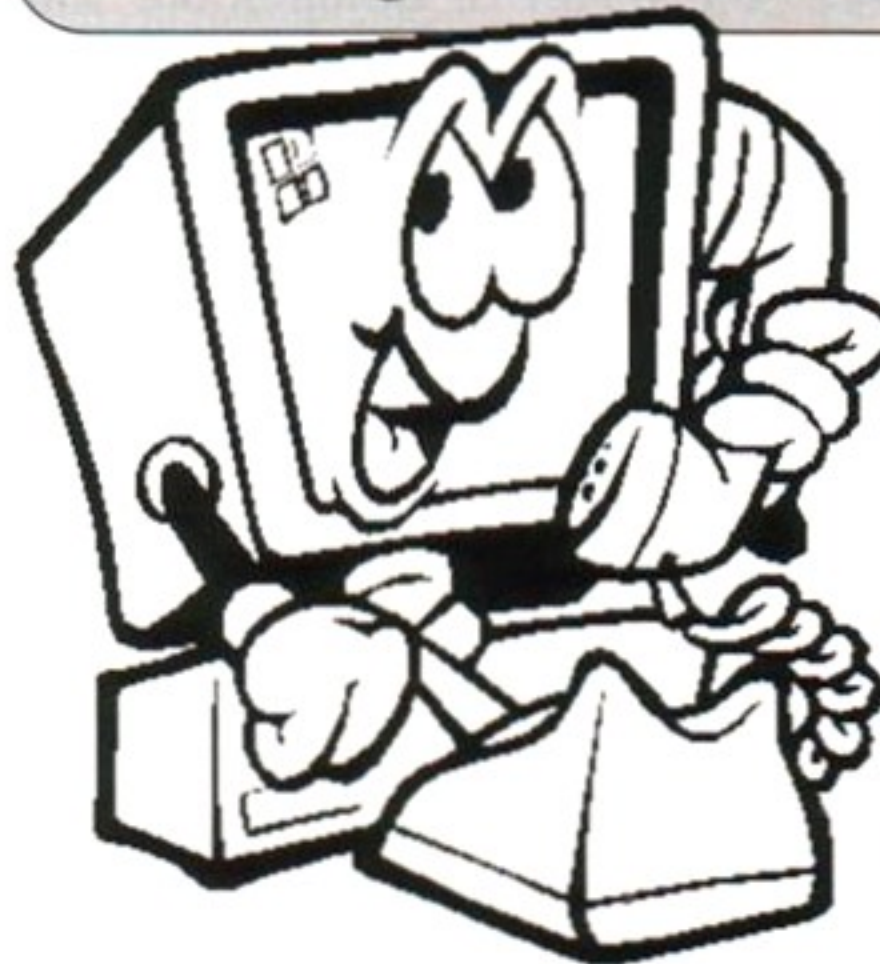
And the two pages of readers views that we published? Sycho-phantic? That was an accurate and typical sample of the comments we received. They were readers whose opinions we value and in which other readers were likely to be interested. So that's why we printed them.

And that's why we print the letters in Write To Reply. Though you boast of possessing a portable phone, you are not among those we welcome. We print your letter with the telephone number you included in the hope that those other readers may express to you what they think of your views on the magazine. Why they buy it and why they find it worthwhile. When they have finished with you, De Wreck, perhaps you will take the phone and stuff it firmly it where it will do you the most good.

Send your letters to:

Write to Reply  
AUI

Amiga User International  
48 George Street, London W1H 5RT



If you wish to  
send an Email  
letter to  
Write to Reply or  
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AUI can be  
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# The Amiga Dimension

**O**ne Amiga magazine in the UK this month has come out with the intriguing coverline "Commodore - latest news." Unfortunately when you turn to the news pages, there was nothing new to report, at all. This month we are starting a new column on the Internet and, coincidentally, just before we are going to press, I've been told that on the Internet it is reported that the management buy out bid from the

team at Commodore UK - Amiga International - has not succeeded. The report says that the bid organised by CEI, a major Commodore distributor in the USA, has won out.

Now I can't yet confirm this report as accurate. There have been many rumours in the months since Commodore went bust that have been - using the favourite words of British politicians caught with their hands in the till - "unsubstantiated". But what is interesting is the problem for conventional media, and that includes magazines such as **AUI**, competing with the new media in the fast delivery of news, through media like the Internet, directly onto computers like the Amiga.

The Rothschild billionaire family fortune was supposedly founded on the day they sent a fast horseman across Europe with the news of the result of the Battle of Waterloo to enable them to get into the Stock Market before anyone else. A modern example of this is the business TV service put out now onto computers by Reuters which their Chairman recently pointed out gave their customers as little as 45 seconds or so advantage over non-customers. But he also pointed out that 45 seconds can mean a profit or loss of millions of pounds on the currency markets of the world.

A follow-on from this is a news item that may be included in the next issue of **AUI** that tells of an Intel development with Cable News Network - CNN - which will bring TV news straight to the screens of PCs.

(If you ask me why this news item is not in this **AUI** - I can only say that we received it too late!). How can a monthly magazine compete with this virtually instantaneous delivery of news - even one that claims

"the latest news"? The answer is that it can't. What we can do is examine the news in a somewhat more considered and analytical way. That is always supposing that the journalists involved are capable of considering and analysing anything that is not a shoot 'em up game, which is not always the case in computer magazines.

## Headlines

Where the Internet and other such media score is that they can give you the headlines, fast. With a hundred odd pages of text and pictures, we give you coverage to a much greater depth. The Internet can certainly bring alive McLuhan's Global Village - it's especially good for gossip like the unconfirmed report on the Commodore bid. But until computer printers can provide visual quality equal to magazine printing - at an affordable price - and in a comparable form, electronic media won't be very comfortable to read.

It's also true that access to the receiving platform, a computer like the Amiga equipped with a relatively expensive modem, in spite of the growth of the Internet, is still confined to a privileged few. Printed media need no expensive sets to be used on so are accessible to a far greater number of people, even

those with very little money to spend on computers. It was thought that TV would wipe out newspapers. (It was thought that we were heading toward the paperless office too. Not yet as I drown in documents of one kind or another - all that need filing and few that get it!) But TV is good for conveying bad news, pictures of floods, volcanoes or tragic events that have heavy impact.

It doesn't work quite so well for the more positive aspects of life. It's a question of appropriate media for different material. Just as the computer is better at number-crunching than the human mind, the Amiga is more talented at graphics than the PC, the hard drive is faster but not necessarily bigger than the CD, so it's a matter of choosing the right medium in everything.

We're also creatures of habit. This Amiga Dimension is being written on an Amiga. Yet Terry Waite the man who was held hostage for years in Beirut has recently written a book without using a word processor. He can, it seems, only write with a pen or pencil. You can imagine keeping a secret diary in a darkened cell with a pencil but hardly with a computer equipped with W/P.

Magazines last too. There are we know readers who proudly possess the whole collections of **AUIs** and these days magazines are stored on microfiche or CD.

## New Media

It's said that any new medium eats up the old medium first before evolving to what it can do itself. The 16 bit Amiga certainly ate up the 8 bit C64. The RISC-based machine will swallow even the 32 bit 1200. I doubt whether we will see TV on the same machine as we use to print out what we want at today's magazine print

quality and get convergence of every informational medium in this century. There is though no reason, whoever gets the Amiga, why it shouldn't be the machine that does that.

Perhaps that's what we need, though whether CEI, Amiga International or Escom, the German bidder, could afford even to think about it I don't know - a leap forward to give the Amiga a real lead over other computers the way it had ten years ago. You do not need, as Intel say they are, to spend 12 billion dollars on developing their latest chip. Tim Jennison of NewTek says the famed LightWave was largely created by just two programmers.

Recently I was talking to an American banker interested in technology. He had barely heard of the Amiga, yet there is a Canadian bank that has bought a thousand CD 32s to provide an online banking service for its customers to access their own accounts through their TVs even with a remote control.

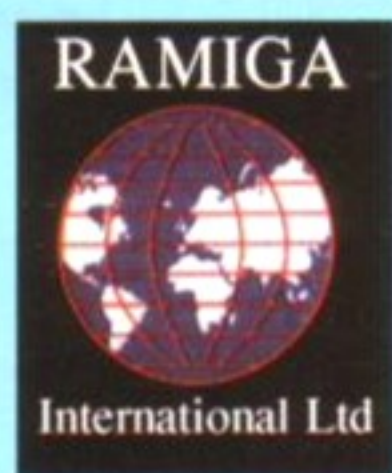
The trouble may well be not so much in the medium through which news - headlines or in depth analysis - is delivered but the ability or willingness of the human mind to absorb all the information that is coming at us and use it intelligently.

As the editor of **AUI**, I have the privilege and pleasure of deciding where the material will go. So this month I've placed the Amiga Dimension on the last page of the magazine, so that this piece of information should not be drowned out by the rest, to give you time and space to absorb the message. The last page of this medium. Except for the advertisements, of course. Oh well. . .

**Antony Jacobson**  
Managing Editor

**TV is good for conveying bad news, pictures of floods, volcanoes or tragic events that have heavy impact.**





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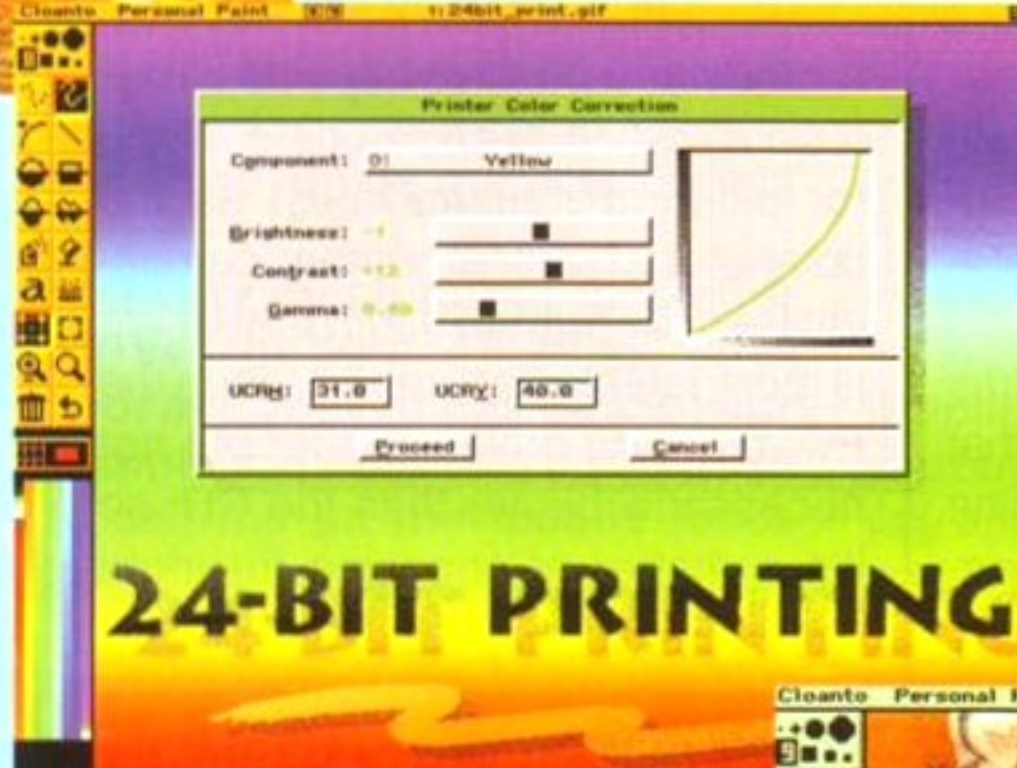
High quality 24-Bit printing (Colour and Black & White) with undercolour removal, gamma correction, PostScript etc. You won't recognise your printer! (Normally a stand alone product.)

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Loading of files through Amiga DataTypes (JPEG, BMP etc.)

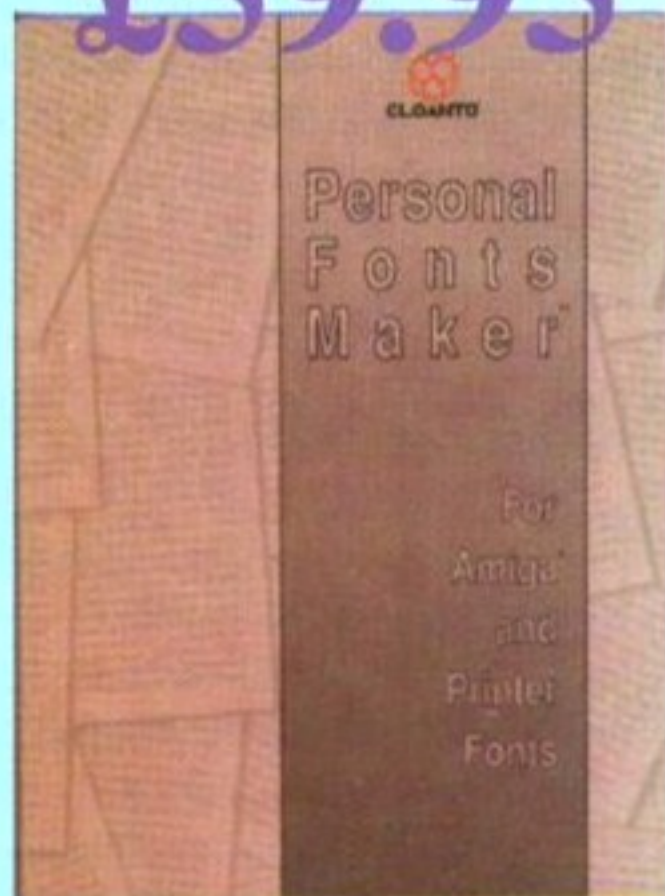
Workbench Application Icon (Drag and Drop).

A collection of third-party utilities, including colour fonts, new HP Deskjet printer drivers (up to four inks, jointly developed by Cloanto and Commodore) and JPEG DataType, which can be automatically installed to the hard disk.



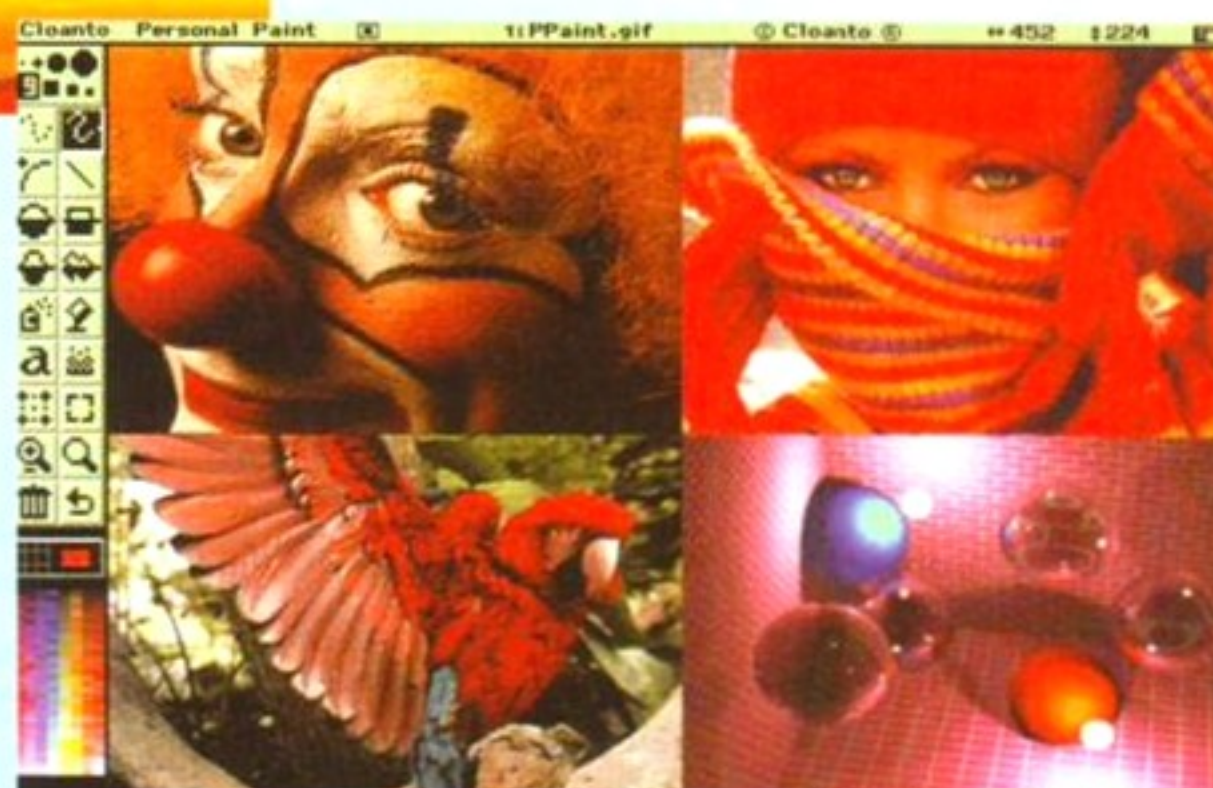
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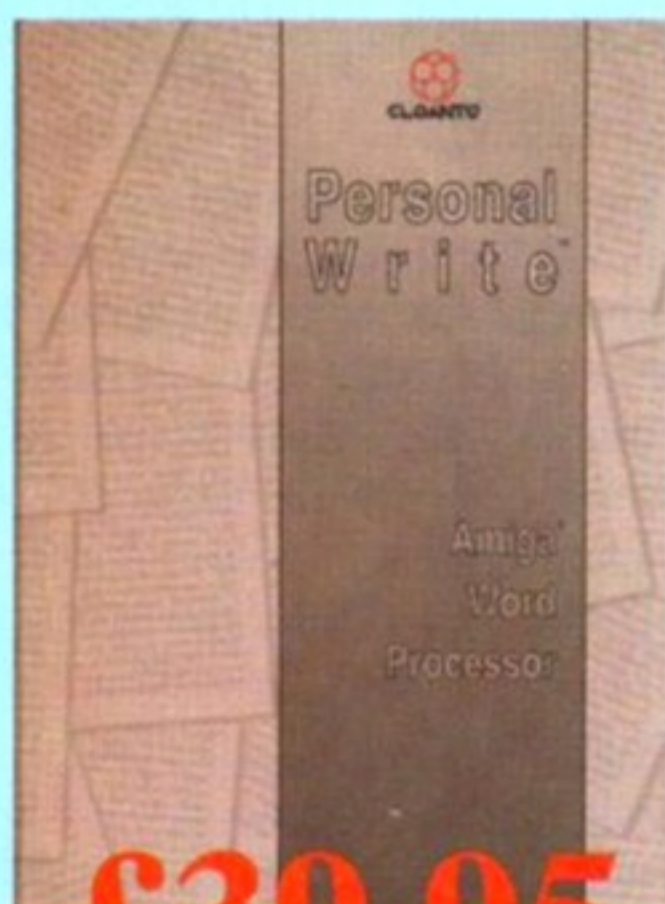


Most requesters and colour processing functions have been rewritten or otherwise enhanced. Keyboard shortcuts have been added to all user interface gadgets. And of course, there are hundreds of other exciting improvements...

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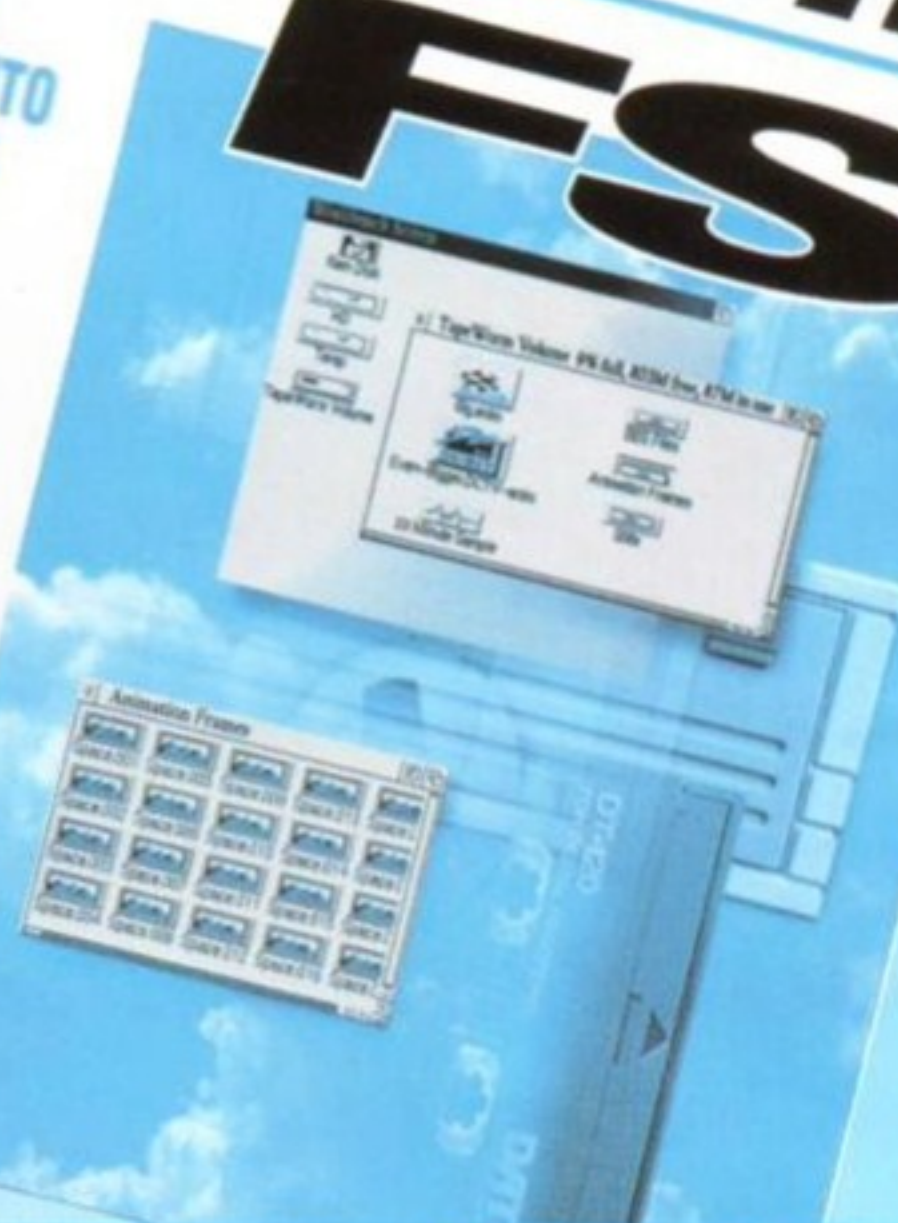
# TOOLS

DT-120  
FOR DIGITAL RECORDING

# FILES SYSTEM TapeWorm FS

Turns your  
TAPE DRIVE INTO  
AN AMIGADOS  
VOLUME.

- Makes a tape drive act like a removable hard disk.
- Complete support for SCSI tape drives.
- All versions of a file on tape continue to exist and are accessible.
- Fast access to large amounts of data.
- Complete support for subdirectories and multiple volumes.
- Ideal for use with video and animation systems.

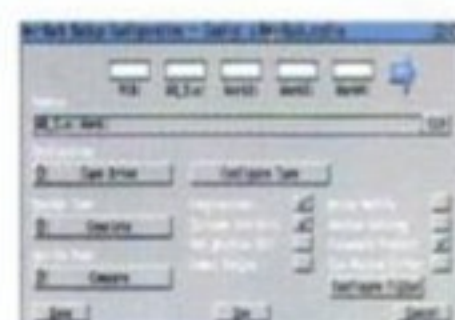


SAFEGUARD

FILES  
SYSTEM



The key to ease-of-use lies in elegance of design. Ami-Back Tools allows you to operate a host of advanced capabilities through an extremely intuitive user interface.



No matter what your backup needs are, Ami-Back gives you the power to get the job done — with an ease-of-use that is unsurpassed by any other backup program on the market.



Ami-Back Plus Tools has a graphical scheduler to automate backing up your data and maintaining your disk drives. Plus Tools gives you unprecedented freedom from your computer.

## AMI-BACK+TOOLS

is the solution for your data backup and hard disk maintenance needs!

Included in this package is both the complete Ami-Back and the complete Ami-Back Tools.

Both powerful and flexible, Ami-Back gives you complete control over the backup process, while Ami-Back Tools makes the job of optimizing your disks for speed or recovering lost files a snap.

Here are some of the reasons why Ami-Back Plus Tools is the All-In-One solution for you:

- Ami-Back**
  - Backs up to floppies, hd floppies, hard drives, and SCSI tape and DAT drives.
  - Appends multiple backups to single and multiple tapes.
  - Compares backed up data to system data if data loss is suspected.
  - Compresses data during backup with no speed loss.
  - Backup to a single AmigaDOS file or device.
  - Performs image backups of any partition.
  - Supports multiple-device backups.
  - Lets you replace bad media during backups, and skips missing disks during restores.
- Ami-Back Tools**
  - Optimizes disks by file, directory, and free space.
  - Lets you recover the file system even if hard disk operation is interrupted making it the safest program available!
  - Finds and fixes disk structure problems that prevent normal operations.
- Recovers deleted files in place and files lost through Quick Format of disk.
  - Saves and restores RDB information.
  - Recovers data by backing it up to floppies or another AmigaDOS filesystem.
  - Wipes all information from a disk, preventing recovery.
  - Performs CRC of all files and stores CRC database.
  - Compares filesystem with CRC database to check for corrupted files due to viruses, etc.
  - Optional caching mode for maximum read/write speed.
- Ami-Sched II**
  - Schedules events to examine, repair, and backup your disks while you sleep.
  - Supports any number of events over any time frame.
- General Features**
  - Password protection, Online help, and Amiga support included.
  - Supports all Amiga filesystems including AmigaDOS 3.0.
  - And much, much more!

## TapeWorm FS

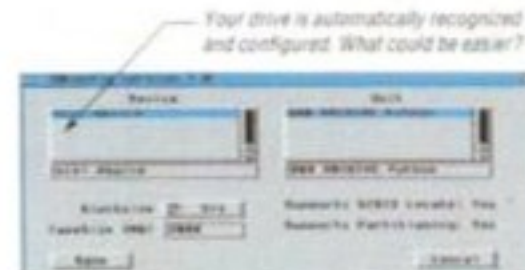
Turns your Tape Drive into an AmigaDOS volume. Supports SCSI DAT, 8mm, and QIC tape drives. Drives that support SCSI II fast search mode are recommended. Requires AmigaDOS 2.0 or higher.



Easy-to-use  
configuration  
program

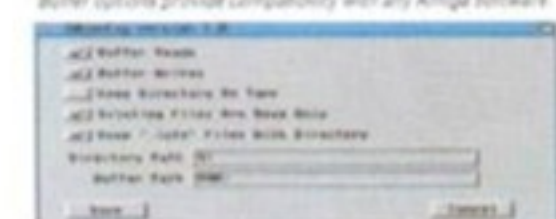
Tapes show up on Workbench just like floppies!

Get directory listings, copy files to and from tape, and do any operation you can with a disk.



Your drive is automatically recognized and configured. What could be easier?

A variety of options allow you to customize filesystem operation. Buffer options provide compatibility with any Amiga software.



RAMIGA International Ltd.,  
Stablau 'Rin,  
Pentrefoelas,  
Clwyd  
LL24 0HT

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