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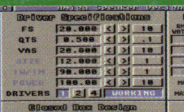
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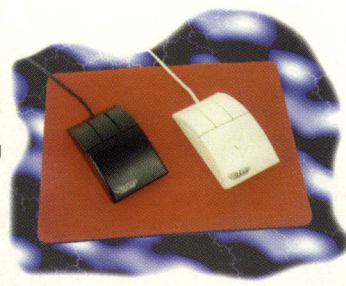
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CONSTANT FACTORS

5 The Amiga Dimension

Managing Editor Antony Jacobson questions if the plans of the new owners of the Amiga include a return to making the Amiga a stand-alone computer and whether there are technological monsters invading our world.

8 SuperDisks No.91 & No.92

This month David Ward leads the SuperDisk team in the explanation of just how much is packed onto the **AUI** SuperDisks.

14 NewsFile

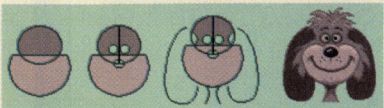
With the once giant Escom shutting up shop and other everyday happenings, Anthony Mael and Martin Witton, with help from David Ward, check in from their travels with another bulging pack of items for the NewsFile.

76 Amiga Answers

It's the favourite Agony Uncle of the Amiga, Andy Eskelson, with eight pages to put your most difficult problems in a more manageable Amiga perspective.

86 The PD Stakeout

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89 Write to Reply

This month it's not the French Connection, but the French Option. Bud Vennos comes over all gay Paree-ish, answering your letters with compliments on your style, information on close friends' relationships with camels, and his own liking for the French tongue.

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26 Achieving Lightspeed!

Steve Bowie leaves Lightwave's basics far behind when he uses two products that propel him toward new frontiers of realism.



28 Low-priced Laser

Alan Lewis sees double the number of dots before his eyes as he assesses an affordably-priced Rolls-Royce of laser printers.

30 Stereo SyncMaster

Samsung have launched a new 15" multi-standard monitor with multi-media capability. David Ward looks at the screen and listens in.

32 Works Of Art

Decent clipart is rare and often expensive. David Ward draws on his artistic experience to give you an impression of Artworks' latest.

34 CD Round Up

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38 More Chips please..

Alan Lewis upgrades his faithful old Amiga with Eyetech's latest RAM expansion board.

39 Good Vibrations?

David Ward, not generally a user of exotic aids, draws the short straw to undergo trial by Aura Interactor.

HARDCOPY

40 Enlightenment

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72 Blockbuster Books

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46 We're talking Amiga Part 1

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47 We're talking Amiga Part 2

In exclusive interviews, **AUI** gets the views of the Amiga today from some of the leading figures in the Amiga world.

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62 Cracking the Shell

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67 ARexx Info

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The Great "**AUI** Gratis and For Nothing Movie Book Tie-in Freebie Giveaway It's All yours Competition!"

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Don't miss out on your next copy of **AUI**. Subscribe now to the longest running Amiga magazine in the world and join those global crowds of other satisfied readers.

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So your local newsagent has sold out of copies of **AUI**. You should have subscribed, but don't worry, for £6 we can send you the issue you missed.

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The section where companies show off their wares.

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52 Not the Next Big Thing?

Joe Gene Parris reveals the growing problems facing the multinational manufacturers as they try to market a product they hope will keep the merry-go-round of consumer electronics turning.

55 What's New

Martin Witton touches all the innovative bases and picks up the novel home runs in the ever entertaining TechnoWorld.

58 The Online Column

Anthony Mael discovers that you can set up your own bank, get your name on the Kremlin wall, join the electrical Mormons in Salt Lake City, and send out messages to lots of different computers with some hot as hell new products.

66 The BIG Squeeze

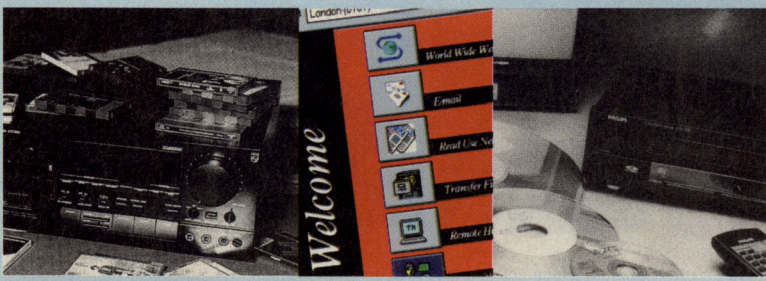
Part 3

The road to success is littered with failures... This month David Ward recounts how some of the one-time wonders of the compression systems fell by the wayside.

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Part 3

The battle between Motorola and Intel hots up in the latest episode of Simon Goodwin's definitive series on chips, the little things that mean so much.



Who Does What

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Printed in the U.K.

The Amiga Dimension

The Amiga Dimension is extraordinary. There is so much going on in this technology-driven world in which the Amiga exists that it is hard for a magazine to cover even a small part of it.

This month in **AUI** we have some influential Amiga people commenting on the Amiga and its possible future. They don't all agree. There is a major difference of opinion on whether the Amiga should chase after the PC or the Playstation and attempt to be what it once was, a mass market machine. The other view is that it is too late for the Amiga under its new masters to try that strategy and it should aim for a niche and specialise as a "serious" computer.

This divergence of opinion probably represents very well the two viewpoints that today are held by the Amiga community as a whole. By definition, most of the readership of **AUI** will be a part of the mass market. There will be some readers who work with Amigas, but generally we acquired Amigas not for some financial reason, but for the enjoyment of possessing a computer that would provide the highest level of performance at the most reasonable price.

Then the Amiga fitted that description perfectly, but now there is little evidence from VISCORP or Amiga Technologies that they believe in a return to that successful past. VISCORP plans to take Amiga technology into an unexplored mass market, set-top boxes. Nobody has yet explained how that will fit in with the standalone computer mass market as we have known it.

Other companies are talking of creating Amiga clones. The day of writing this we were called by a company asking if we thought an Amiga clone priced at £600 would sell in this country now. It didn't take much thought to suggest that trying to do that would be tantamount to financial suicide, which is an opinion possibly about any such Amiga clone idea.

On the cover of this **AUI** we have used, partly as an ironic comment on the present uncertain Amiga situation, a picture of the never-to-arrive last planned Amiga, the Surfer. That machine was a "good idea at the time". With the public interest in the Internet, an Amiga could have matched the much-hyped NC for price and would have been superior as a computer, but the plan to launch such a machine was aborted and rightly so. For the price - set at some £650 - meant that the Surfer would have had no advantage for cost, and it lacked the PC standard that could have appealed to a mass market.

Though the Amiga exists now only in a state of suspended animation, in the unstoppable TechnoWorld, we report on a fight to dominate the "next big thing" market with Sony cutting their Playstation prices desperately to stave off the threat of Nintendo's new console. At the same time, there is a battle starting over the advance of DVD or rather its lack of progress due to copyright difficulties with the computer, film, and music industries.

On the Internet another war is breaking out between two competing systems, Sun's Java and Lucent's Inferno. Both of these allow the distribution of applications across a range of platforms. Interestingly, Inferno, an operating system rather than Java's programming language, could make it possible for a PowerPC-based Amiga to join in the unification of standards across the Information SuperHighway. That is good news because it is precisely ease of access to add to its renowned user friendliness which the Amiga needs.

One of the problems with all this technological "progress" though is whether it is worth making or whether such incessant movement is a self-justifying monster which we don't control and don't really need. Yes, there are advantages in unified standards so that access becomes simpler and cheaper. Yet very often, as is reported in The Online Column this month, the purpose of change seems little more than to make the already rich, in this case the banks, monstrously richer.

However, also in this **AUI** is a report of a technological development that will allow deaf people to use the telephone. Now that has a real and valuable use. Anyone who is suffering the terrible disability of loss of hearing deserves all the help that technology can give.

One of the Amiga's great talents is in graphics and it has been used frequently for special effects that movies now apparently must have to be box office hits. H.G. Wells, in his books, created SF monsters early in this century. Now we are spawning our own multiplying brood. Sometimes with the Amiga's help, they are just safely performing on the screen but, too often, these technology-justifying monsters seem to be forcing themselves onto our desktops and into our homes, whether or not we need or want them there.

Antony Jacobson
Managing Editor

EPIC MARKETING

CD ROM SOFTWARE

GIF SENSATION DOUBLE CD New Version (CD128) £19.99

The new GIF Sensation double CD contains around 10,000 full colour images, Viewer and converters are included on the CD. Subjects include: Vehicles, Space, Science fiction, Textures, Landscapes, Sunsets, Money, Cartoons, Fantasy, Sports, Raytraced, Classic art. and loads more.

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Contains around 5000 erotic hand drawn Images in the Japanese anime tradition. This CD is of an Adult nature and should not be purchased by anyone likely to be offended by drawings depicting nudity and / or sex acts. An adult only cdrom!

Includes images only suitable for persons over 18

World Atlas

This superb highly rated Amiga CD-ROM World atlas features a flexible interface allowing quick access to individual countries via continental maps, county list, capital or general index. Concise, informative county histories. Each country is supported by a series of maps depicting regional position, major cities, rivers, lakes and mountains. Background cultural and economic information is available at a glance. Basic national facts are represented graphically and comparative to the UK. For A1200, A4000, & CD32.

WORLD ATLAS AGA NEW !!! (CD220) £29.99

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The new Magic Workbench CD contains the largest collection of Magic Workbench Icons, Backdrops and tools ever compiled. Includes well over 5,000 Magic WB Icons, Over 600 specially selected Magic Workbench backdrops in 8, 16 and 256 colours, over 30 megabytes of Workbench tools, gadgets, patches and desktop enhancer tools/utilities. The CD also includes Magic Workbench as well as many other items never before released on any Amiga CD ROM. If you want to update/enhance your existing Workbench 2 or 3 then this is the perfect Workbench add on CD ROM. This CD is only suitable for any Kickstart2/3 based Amiga's such as the A500+, A600, A1200, and A4000.

The Adult Sensation Range

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Adult Sensation is possibly the Amiga's largest selling adult title. It features over 4,000 high quality 256 colour images of the "adult" nature. Image viewers and converters are included for every configuration of Amiga. (OVER 18 ONLY) out now! (CD01) £19.99

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What users have said... This is just Brilliant! - Very Impressed - Who needs Enxxxta?
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Graphics Pack (5cd)	39.99
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This data CD ROM contains the very best Adobe and Postscript fonts available as well as thousands of high quality clipart images in PCX, IFF and EPS which are suitable for use in any graphics and Desktop publishing package. A great value CDROM.

AMINET 12 June'96 (CD224) £12.99

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This brand new updated CD contains the very latest AGA utilities, demos, Images and games. All accessible directly from the CD. The makers claim there are virtually no duplicated files from the first CD.

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Zoom 2 includes the very latest software upto April'96. It includes the very latest games, demos and utilities. It also includes over 100 new klondike cards. The complete Active Pro pack, over 50 disks of samples, 25mb of Magic Workbench and a special 'programmers' section.

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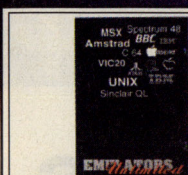
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EPIC MARKETING

CD ROM SOFTWARE



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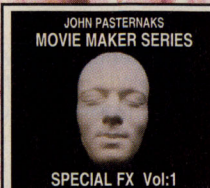
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SOUND FX SENSATION (CD165) Only £14.99



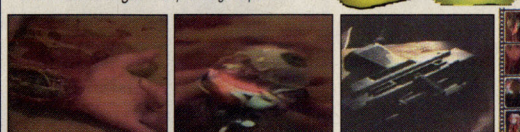
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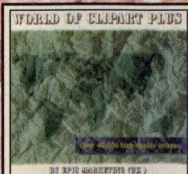
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WORLD OF CLIPART Plus **Rated 94% DOUBLE CD Available now!** (CD77) £17.99



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Includes over 600mb of all the very latest music modules, covering everything from classical, rave, hip-hop, chart, slow, melow and jungle music. Also includes tons of sequencing tools and "tracker" utilities. **NEW!**

THE SOUND LIBRARY 2 (CD225) £14.99



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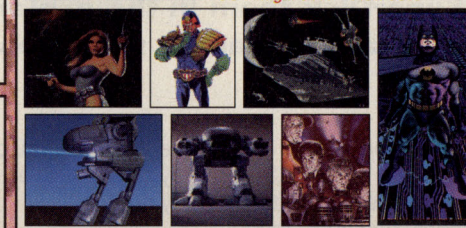
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HORROR SENSATION NEW (CD144) £19.99



Retro gaming at it's best. Around 3000 all-time classic spectrum game files on one CD-ROM. Emulators included for any Amiga... Games include Manic Miner, Skool daze, Monty mole, Startrek, Thrust, Jet Set Willy, The Hobbit, Strip Poker, Danger Mouse, The Sentinel, Micro Olympics, Under Wurlde, Uridium, Atic Atac, River raid, Barbarian, Hunchback and around 3000 other classic spectrum game files including multi-load games. Specy '96 also contains hundreds of documents containing instructions for most games as well as hundreds of specy game cheats. Okay on any CD ROM drive connected to an Amiga.



New Version!.. now also includes: Workbench games, lottery predictors, Hundreds of bad jokes and more.

Rated: AF GOLD 95% - CUAMIGA 91% - AUI Over 90% - AC over 90%

THE SPECCY CD 1996 V1.1 (CD119) £17.99



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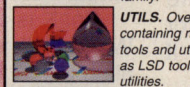
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The Great AUI SuperDisks No.91 & No.92

This month David Ward leads the SuperDisk team in the explanation of just how much is packed onto the AUI SuperDisks and what you can do with these wonders of programming.

The Great AUI Utilities Disk No.1 AUIOct96c

AsciiConv

Interchanging text files between the Amiga and the PC was made relatively simple with the introduction of Workbench 2.1. However, there are still differences between the way the contents of the file are stored to make it necessary for conversion utilities, especially if your using WB1.3.

Both machines utilise the first 128 characters as defined by the American Standard Code for Information Interchange - the famous ASCII character set, but from symbol 129 onwards they diverge.

This Shell driven utility transposes the characters, so that you get what was intended, and it converts the PC habit of using a line-feed and carriage return to delimit a line into the Amiga's plain old linefeed. This is a utility well worth possessing if you are ever going to be exchanging files between the two systems. And who isn't likely to these days?

DED

Here's a handy sector editor for examining what's stored inside program or data files. In the right hands it can do wonders. In the wrong hands, though, it can wreak havoc. So be very very careful out there, as Elmer Fudd might say. But of course you always are, aren't you?

DosK

Old hands on the Amiga will remember the AmigaDos Replacement Project (ARP) which improved

upon many of Commodore's original C commands used by WB1.3.

The ARP commands were often smaller and more powerful than their counterparts, and many an Amiga user had them installed on the system. When WB2.0 came along, ARP was no longer necessary, although I kept one or two for use as the new Commodore set could still not rename using wildcards.

DosK is an 'ARP' for the newer Workbenches, but its commands all end in K to keep them separate from those supplied with your machine. There are even a couple of supplementary commands that

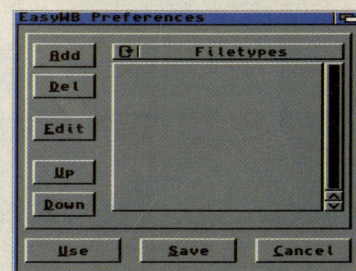
have no AmigaDos equivalent. They're all detailed in the accompanying panel.

EasyWB

Here's another one of those App Icon programs for all you WIMPish Workbench users out there. Real Amigans are supposed to use the Shell as Kevin Bryan often tells us. (Some people will believe anything.)

What this program does is quite simple. It creates said Applcon on the Workbench screen and, when you drag a data file onto it, it will perform an action.

This action depends on what you have told EasyWB to do when it recognises a file. For example, if it is a picture, EasyWB will then call up your favourite picture viewer to display it. If it is a text file, then EasyWB will start up your choice of text reader so that you can see it.



EasyWB reads the first 12 bytes of a file to determine its type, and then uses this information to select which program to call from a list you define.

To see what the first 12 bytes of any file look like, use the DED program on this disk.

UnArj

In case an Arj'd file finds its way onto your system, here's the most recent version of UnArj we could find for you to be able to unpack it. What is Arj? You obviously haven't been reading AUI's in-depth examination of the world of data compression. Order the August 1996 back issue of AUI now to find out!

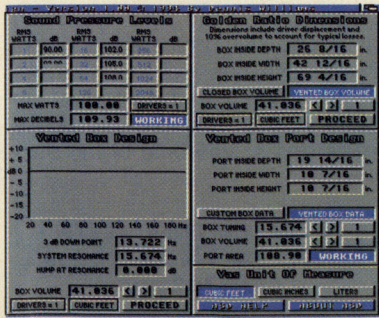
The Great AUI Utilities Disk No.2 AUIOct96d

Amiga Speaker Design

Wibble! This is probably going to be the first word to emanate from your mouth when you start

AvailK	- Shows avail memory
AddbuffersK	- Add and subtract device buffers
BlankerK	- Screen blanker
BreakK	- Halts running Dos Commands
CdK	- Redirects output
CmdK	- Intercepts parallel port and sends file data
ConclipK	- Reads clipboard and can close it
CopyK	- Copies files and directories
DirK	- Shows directories and listings
DeleteK	- Deletes files and directories
DiskCopyK	- Copies a disk
FilenoteK	- Adds comments to files and directories
FormatK	- Formats a disk
HelpK	- Brings up DosK Help Commands
InfoK	- Shows considerable information
InstallK	- Installs and checks bootblocks
JoinK	- Joins files together as one
LockK	- Lock devices to avoid writing, reading etc.
MakedirkK	- Creates directories
PrtK	- Prints to printer or files
ProtectK	- Protects and unprotects individual files
ReadK	- Brings up Multiview, AmigaGuide and More
RenameK	- Renames files and directories
ResidentK	- Shows and manipulates Resident Commands
RunK	- Runs programs etc.
SearchK	- Search for strings or files
SortK	- Sorts to a new file
TypeK	- Types file to new file in Hex or Ascii Char.
VerK	- Displays version of libraries etc.
VidK	- Toggles screen mode between NTSC and PAL*

* REQUIRES THE PUBLIC DOMAIN PROGRAMS PAL & NTSC



this program up and you are not a do-it-yourself HiFi loudspeaker builder. If you are, then the words are probably going to be "Thank you, **AUI**, I WILL become a subscriber to your wonderful magazine!"

Amiga Speaker Design does all the maths involved in the construction of ported or sealed loudspeaker enclosures. As we have pointed out in recent reviews in **AUI**, loudspeaker design is a lot more than building a box with a hole cut in the front for the driver unit. Quality sound is as much about a correctly dimensioned enclosure as the type of unit that converts the electrical signals to pressure waves.

CDR

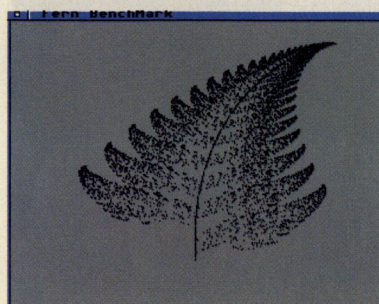
A PC program on the coverdisk! Is this a first for an Amiga magazine? CDR is a utility that runs under MS-DOS 3.2 or greater. It allows you to use a PC fitted with a CD-ROM drive to access Amiga discs, such as the Aminet series, more easily than can be normally done using the weird Microsoft operating systems.

Fern

Fern is a program that - surprise, surprise - draws a fern on screen and tells you how long it took to do it. It will also detect any co-processors you might have fitted to your system, so it can be used to benchmark them. It's just a simple bit of vegetation after all.

For

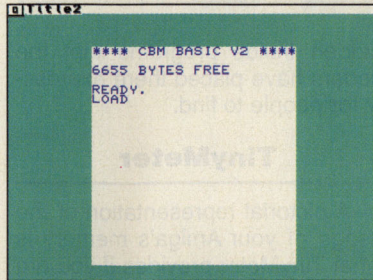
Here is a command that allows you to create loops in Shell scripts. It can use string variables, numeric



variables, or pattern matching, and it really makes AmigaDos versatile.

Vic

Pieter van Leuven upgraded from a VIC-20 to an Amiga and so missed his old machine that he wrote this emulator. A sad person indeed, but if you are a VIC-20 saddo too, this one is for you. Cheer up, myn heer.



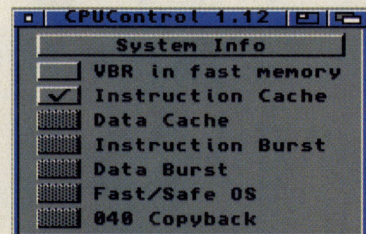
The Great AUI Utilities Disk No.3 AUIOct96e

ARexx Code

This is where the ARexx script that accompanies Paul Overaa's article in this issue lives. No more of those good old days when you had to type everything in. How you must miss that enjoyable exercise.

CPU Control

Here is a GUI front-ended program that allows you control over processor features not normally accessible unless you're an assembler coder. CPU Control works with all Motorola processors from 68010 to 68040 and the 68851 co-processor and, depending on the specification of your Amiga, lets you toggle the caches, burst modes, copy back, FastROM, and more. This program is Simon (Chips That Made History) Goodwin's dream utility.



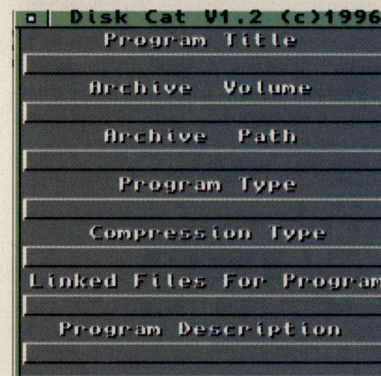
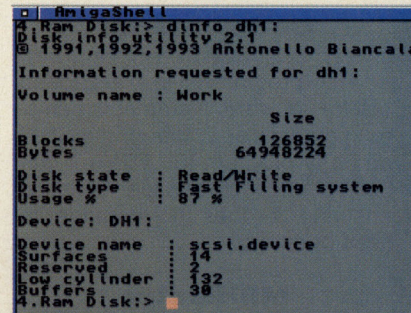
CyberCron

This neat program runs as a background task and executes DOS or ARexx commands or scripts, at set times. They can be those that start a back-up procedure (Good

idea that) or remind you that it is long past your bedtime, so turn the thing off and visit your eagerly waiting human partner. (We would have said human "Amiga" meaning "girl friend", but we had a complaint about sexism from a gay reader in Argentina.)

DInfo

If you want to know how much of a storage device is used, which filing system is in operation, and other technical details, then DInfo is the command for you.



DiskCat

In the olden days of the Amiga, before hard disks (ah, yes, we remember them well), huge collections of floppy disks would be stored all over bedrooms and offices. Then one day the user would want such and such a program and would have to hunt through these disks, inserting each to check its directory for the missing files, just to find it.

Nowadays hard disks make on-line storage quick and easy... but what about those back-up disks which some of those on the Super Disk team should remember to use? Now you can catalogue what's on those disks for that day when you want that so-and-so of an old program.

DirUsage

This Shell command will report back to you on the number of directories on a particular device, how

many files each holds, and the total number of bytes taken up by them. Very useful when fitting data from CD-ROM or hard disk onto floppy.

HPSet

Here's a little program, Shell only though, that allows those of you lumbered with a Hewlett-Packard printer temporarily to alter the default preferences' settings prior to printing.



Filter

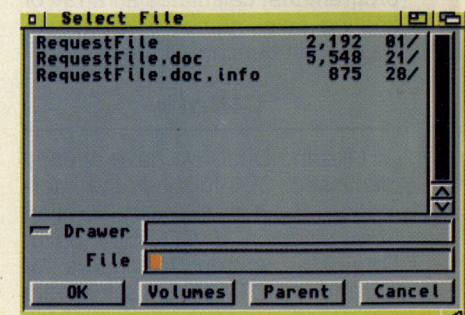
Filter is a simple command that turns on or off the Amiga's internal audio low-pass filter.

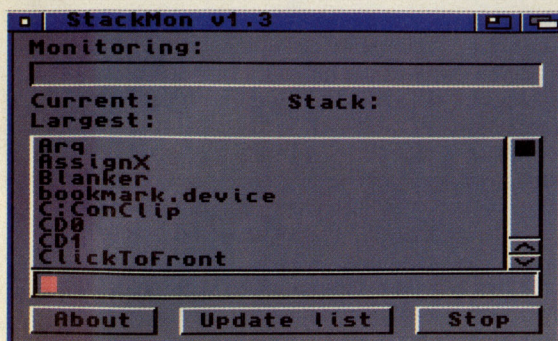
Indices

In this folder are the indices to past **AUI** magazines, SuperDisks, and CD-ROMs. The gorgeous Sarah-Jane Clifford-Jones has asked us to point out that we no longer have any copies of AmigaCD No.3 and that there's only a handful of AmigaCD No.2 left as well. First come first served! So get your order in early.

Request

Workbench 3.0 came with a new command that allows the Shell user to call up a file selection requester. Unfortunately, Workbench 2.0 users have no such equivalent command. Until now, that is. Simon Dick has written this version especially for you so that you can join in with Kevin Bryan's Shell tutorial this month.





StackMon

Here's a programmer's tool that helps you keep track of the stack usage of various programs. With StackMon you can see which naughty piece of code has 'overflowed' and crashed your system.

SetAmiga

This is another Shell command. This time one that allows you to switch your Amiga between PAL and NTSC TV modes.

StringClip

With StringClip you can add cut and paste facilities to text in string gadgets of machines running Workbench 2.0 or above.

WBStarter

Another programmer's toy. This one emulates the conditions that occur when a program is started from Workbench.

The Great AUI Utilities Disk No.4 AUIOct96f

ARcalc

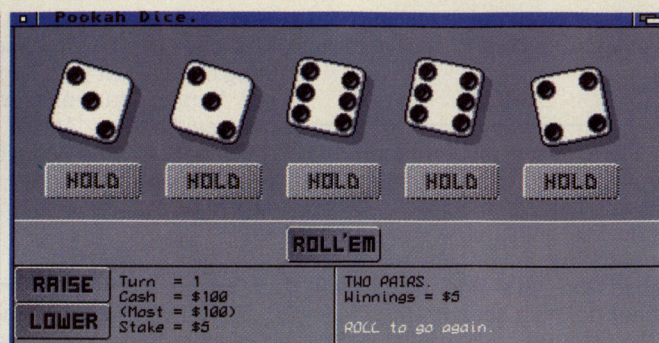
ARCalc is a multi-function on-screen calculator. Hex, decimal, octal, binary, trigonometric functions, and an ARexx port too. It knows no bounds, and is only limited by the operator.

BIS

BIS is short for Bi-Spectrum, a program that calculates an array of floating point numbers which can be used in benchmark tests.

CDInfo

Like the DInfo we have already discussed, CDInfo reads the information about tracks and duration from discs in a CD-ROM drive. Originally written for users of expanded CDTV systems, it should



Pookah.

work on A500/A570 combinations too.

CodeWatcher

This program is like a padded cell for software. It creates an environment similar to that of the Shell and any program run within it can be kept under close supervision, so ensuring it does no damage to itself or others.

MIDIMeter

Have you ever wondered how fast the data is flowing through a MIDI channel? If you're lucky enough to have such an interface connected to your Amiga, then MIDIMeter will graphically display data throughput as a series of coloured bars.

NoClick

Pop this little command into your user-startup and you can do away with the annoying clicking that empty Amiga disk drives make.

SearchIndex

Usually, when you want to search an index, you have to call up a text editor, load the file, enter the keyword in the search requester, and click on the 'go do it' button. However, with SearchIndex all you need to do is type a string in the Shell and away it goes and finds what you want. It will even output the results to another file for later reading. How nice to have such a helpful utility.

Strings

Strings is a command will that search through a binary file looking for strings of text characters and either print them to screen or to a separate file. This is much easier than using a sector editor like DED to scroll through page after page of code for them.

Be warned that you may sometimes find not very polite language

hidden inside programs that the coders have placed there expressly for people to find.

TinyMeter

A pictorial representation of the usage of your Amiga's memory is what TinyMeter provides if you are running Fullbench.

The Great AUI Utilities Disk No.5 AUIOct96g

Snoopy

Eddy Carroll's SnoopDos was the inspiration for this programmer's program. Snoopy allows you to monitor any library, device, or resource in any way you want. This versatility is controlled by a special script-like configuration file, so this is one for you advanced users.

The Great AUI Games Disk No.1 AUIOct96a

Valhalla III Demo

The third game in the speech adventure series from Vulcan



Above right: Valhalla
Above: Reaxxion

Software sees the hero searching for a wife. Unfortunately, the evil Queen Eve has locked up all the eligible women. In this demo of the game you can explore one of the levels and solve some of the puzzles.

The Great AUI Games Disk No.2 AUIOct96b

Pookah

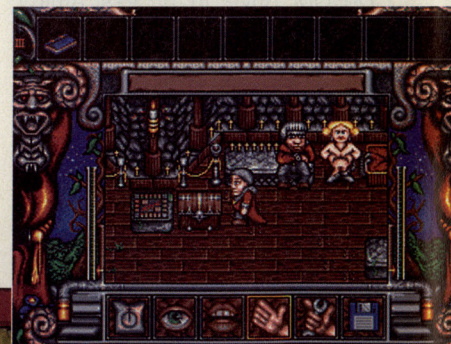
Pookah? That's Poker dice to you and me. Roll dem bones and try to throw yourself a full house.

PuzzleMania

A form of maze game in which your character has to collect tokens and keys to escape to the next level while avoiding nasties and collapsing floorways. That's about it really and it's probably all you will need to keep you going for far too long.

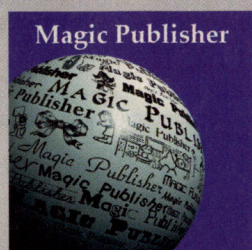
Reaxxion

This is a colourful puzzle game that requires you to roll coloured spheres so that they all end up the same hue. It's not easy, you have carefully to pick the sphere you wish to roll if you don't want to undo those you have already turned.



The Workbench-and-CD-ROM is the ideal companion to your workbench. On this CD you will not only find the best programs, that are available for the Amiga, but you will also get them ready-to-run from the CD. In addition to this there is an installer script that installs the desired programs to your harddisk.

The CD covers all areas of interest, all the programmer, the user, the creative and the gamer will find what they are looking for. On this CD-ROM there are many shareware programs, some of them at special price, if you get registered. There is e.g. Shopesifter for 40.-DM (instead of 50.-DM), in addition to this there is a 50 MB Mac partition, so that you can start playing around with Mac applications right away. Then there is PowerPlayer for 20.-DM (instead of 30.-DM), there are, of course, loads of modules with it, so that you can try to make a CD-ROM for the 11-server for the Amiga. And you can buy for 40.- instead of 50.- you can so ve more than 100.-DM with this CD. Therefore you only have to send in the appropriate price in the booklet to the author of the program. **724.95**



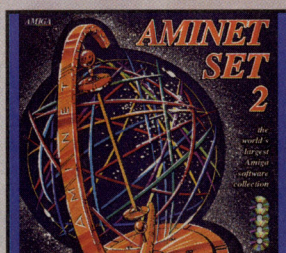
On this unique ROM Set you will find all you need to create nice looking documents. If you want to write a book, if you want to design a poster, if you need to create WWW-Pages for the Internet or for a mailing, ... all you need you will find on this marvelous CD-ROM. There are more than 10,000 Fonts (Colour Fonts, Bitmap Fonts, IFF-Fonts, Adobe Fonts, IntelFonts, TrueType Fonts and DMF Fonts), more than 5,000 cliparts and 150 printer drivers. Many of these are exclusive to Magic Publisher. You will also find a complete installation of Postscript (more than 300 MB), containing all its fonts (up to 600x600 ppi). In order to create good looking documents, there is Final Writer 4 SE and Wordworth 4 TD. Both rated as the best word processors on the Amiga. For creating good looking Internet-WWW documents there are all available Free / Shareware programs for the Amiga, including many backgrounds and special clipart for this purpose. The 100+ pages booklet contains prints of all fonts and clipart. Special BBS section is also provided. **£49.95**



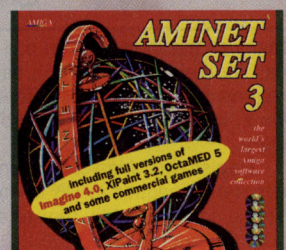
The official developer CD from Amiga Technologies contains all the material you need to start developing software for Amiga computers. This includes: The CD32 developer package. In addition to the original five disk set distribution you will find the "Build-CD" CD writer package Packages contributed by third parties: The WBShop and ActionFSM packages, courtesy of Ralph Babel; The Envoy v2.0 developer kit, courtesy of IAM, Inc.; The (Ne) 2252 developer kit, version 2, courtesy of Interests, Inc.; The Kiskometer package, courtesy of Angelo Schmidt; The Enforcer v37.64, courtesy of Mike Sinz. Information in support of forthcoming operating system developments. Additional developer material: BOOFSI package and image classes. The AmigaOS v2.2 example code, as part of the original AmigaOS v2.2 CD-ROM. The AmigaOS v2.2 example code. The complete set of registered IF forms: IFP example and at-test files. All IFP packages released by Commodore/Amiga Inc., covering 1986 through 1992; The camd v371 MIDI developer kit; The SANA-II standard package and developer kit; The Installer v4.31 package. International support material: Sample text using the full ISO-8859-1 character set; Translation guidelines. The updated 3.1 Native Developer Kit; "C" and assembly language header files, linker and runtime libraries; System documentation and tutorial texts; Example code covering the Amiga OS 3.0 and 3.1 features; The Newfif v39 package; The AmigaGuide and Datatypes documentation and example code. Reference material: The collection of AmigaGuide Volume 1 articles, covering Spring 1987 through March/April 1993; The collection of AmigaGuide Volume 2 articles in AmigaGuide format, covering January/February 1990 through March/April 1993; also included are the printable issues in PostScript and PageStream format; Hardware related articles; The Includes & Autocodes in AmigaGuide format. **£14.95**



Aminet is the world's largest collection of freely distributable Amiga software. Up to 10,000 users access the vast archives every day, and countless programmers publish directly via Aminet. Until recently access to Aminet was restricted to international network users. With Aminet Set 1, consisting of 4 CDs, the complete archive is published the first time. This CD-ROM-collection, which is dated January 1995, offers an almost inexhaustible reservoir of top-value Shareware. A wide variety of programs is included. Applications, Games, Demos, Pictures, Mods, Animations, Developer-Material, ... It contains approximately 4 gigabytes of software in 12,500 archives and you will enjoy the comfortable user-interface. **£29.95**



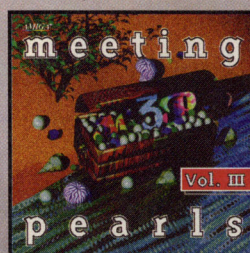
AMINET SET 2, dated November 1995, consists of approximately 4 gigabytes of software in 12,000 archives. Whether you like applications, games, communications or programming, the SET gives you all you need. Easy to use index files and search facilities make accessing it a pleasure. **£34.95**



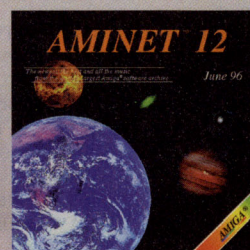
AMINET SET dated July 1996, consists of approximately 4 gigabytes of software in 9,000 archives. Also included are full versions of Imagine 4.0, XiPaint 3.2, OctaMED 5.0 and some commercial games. Whether you like applications, games, communications or programming, the SET gives you all you need. 95 MB Utilities, 79 MB Documents, 408 MB text software, 12 MB CD/HD tools, 7 MB Hardware related, 756 MB Pictures & Animations, 208 MB Graphics software, 394 MB Graphics & sound demos, 563 MB Games, 64 MB Miscellaneous, 685 MB Music modules, 28 MB Music software, 131 MB Communications, 91 MB Development Software, 88 MB Business software. Easy to use index files and search facilities make accessing it a pleasure. **\$39.95**



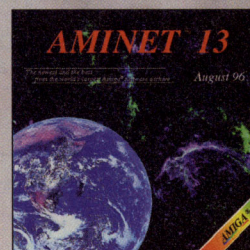
This CD contains 1070 games for the Commodore Amiga from differing categories. Action, Jump & Run, Card Games, Puzzles, Strategy Games - a whole range of computer entertainment awaits! Gamers' Delight will hold you captivated for hours and guarantees long-lasting pleasure. 70 games are commercial versions - no public domain, no demo! This CD can be run on any Amiga with CD-ROM drive, 1 MB free memory and Joystick/Joypad. **£26.95**



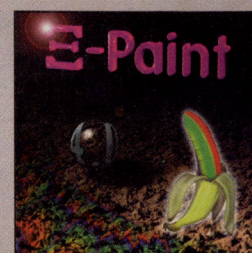
The Meeting Place Volume III contains 650 MB of the latest FD software via a special user interface, which has been created to allow you to find the program of your choice with ease. The contents: 10 MB Packer, Cruncher, Archive Programs - 3 MB CDROM Utilities - 21 MB Communication and Network Programs - 5 MB Debugging Tools - 29 MB Development Tools - 13 MB Floppy, Hard Disk and SCSI Programs - 8 MB Educational Programs - 9 MB Games - 3 MB Graphics Programs - 39 MB Internet Movie Database, Updated Version - 7 MB Midi Tools and Programs - 27 MB Mods - 12 MB Music Programs - 21 MB Pictures - 13 MB AmI/Fac and more for Networking - 60 MB Documentation, CDROM Databases, etc. - 15 MB Utilities - 3 MB HTMLPages. Collections of datatypes, benchmark programs, icons, programs for amateur radio and electrical/electronic engineering are also included. **£9.95**



Still available! **£14.95**

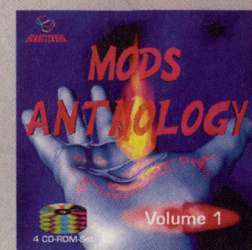


Aminet CD 13, dated August 1996, consists of approximately 1.1 gigabytes of software in 2400 archives. Since the release of Aminet CD 12 more than 800 MB new software has appeared. The current edition has a special focus on animations, several hundred animations from the internet were included. User friendly access software makes the Aminet CD 13 a pleasure to use. **£14.95**



XiPaint 4 is the new version of the leading edge, 24-bit paint program. It's suited to the demands of novice and expert alike, and within a short time, you too will be able to produce colourful and creative art in 16.8 million colours. This version of XiPaint features animations as well as easy-to-use raytracing capabilities.

Overview of Features: • Diverse paint functions including colour, contrast and saturation adjustment • Mask, outline, recolour and fill functions • Airbrush with adjustable spray functions • Lightweight functions for manipulating maps and animations • Text functions with anti-aliasing using CompuGraphic fonts • Support for a variety of graphic formats • Unlimited Undo • Diverse manipulation of alpha channels with functions for drawing, erasing, copying and pasting • Projects • A-Box project • Drag and Drop colours • External filler module • Extensive documentation • 60 textures, 80 landscapes, 30 other pictures and many fonts included. **£49.95**



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NetNews Offline Vol. 1 is the first disk of a new bimonthly published series of Amiga CD-ROMs which contains all Amigo-related newsgroups from the internet. Every volume features about 50,000 articles which contain hot rumours, important information about all aspects of the Amiga, press-releases, discussions and flame wars, ... A newsreader is included. NetNews Offline is the cheap alternative of getting in touch with Usenet. **£14.95**

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DISK INFORMATION

Additional Information

Floppy Users

You can install to any disk except this month's SuperDisk. When asked whether you want to install to floppy or hard drive, select 'f'. When prompted, insert your destination disk into df0: - the internal drive. This disk will then be formatted.

Installation time varies according to the amount of information we have compressed onto the SuperDisk for you. Some installations may require some disk swapping.

Hard Drive Users

You can install directly to hard drive. Boot SuperDisk No.91 as you would for a floppy installation, and select the disk you wish to install. When asked whether you want to install to floppy or hard drive, select 'h'.

You will then be presented with a list of devices to which you can install, and the amount of space available on them. bear in mind that to install the whole set of disks will require somewhere between 2 and 3 Mb.

The installer will create a drawer with an exact copy of the floppy version of the SuperDisk in it. This includes startup-sequences, fonts, libs, and so on. Delete those that are unnecessary, and move any files in the libs, fonts, devs, etc., to their appropriate places.

Please note that the default tool for any text or document files will need changing from 'least' to your favourite, or just place a copy of least in your C directory.

You cannot install to any path that contains the following letter sequence: 'df', 'pc', 'ds', 'ram', or 'cd'. This is to save confusion with existing Amiga devices.

Expert Users

Installation directly to hard drive is so easy that we recommend you take advantage of our installer. However, if you want to do things the hard way, please remember that SuperDisk No.92 is in the diskspare format and requires you to have diskspare.device installed in your devs/DOSdrivers drawer.

All the necessary files - diskspare and UnLzx - can be found on SuperDisk No.91 and, as an expert user, you don't need us to tell you how to find and use them.

Viruses

During compilation we constantly check the SuperDisks with the latest versions of the best anti-virus software we can find. Although, to be on the safe side, we suggest you do the same prior to installation.

Shutters

Before installing the SuperDisks we recommend that you check the metal shutters on the disks for damage. This is best done by gently sliding the cover back and then letting it spring back under its own power. If it sticks, or if it appears to be coming away from the plastic casing, then DO NOT INSERT IT into your drive. You may not be able to retrieve it.

Damaged disks should be returned, see below. Neither **AUI**, the Publisher, or the disk duplicators, are liable for any damage caused to your machine by failure to following these simple guidelines.

Returning your SuperDisk

In the unlikely event that your SuperDisk is damaged or simply does not run then please return it to: TIB PLC, TIB House, 11 Edward Street, Bradford, BD4 7BH enclosing a stamped, self-addressed, envelope. A new SuperDisk will be returned together with the postage costs you incurred.

Technical Support

TIB operate a technical support line if you need advice. They can be reached weekdays between 10am and 12:30pm, or between 1:30pm and 4:40pm, on 0891 715929

This is a premium rate line, and calls are charged at 49p per minute. Please do ask for permission of the phone owner before making the call.

Important Information

All the software included on the SuperDisks is thoroughly checked on several machines before we even consider using it. After compilation the SuperDisks are installed to floppy and hard drive several times prior to duplication. And after duplication examples are selected at random for further testing.

While we cannot exclude the possibility of an error on our part, the most likely cause for a SuperDisk malfunction is YOU! Read the documents that came with the software you are trying to use. If there are libraries that need to be moved, or programs that need to be assigned, then refer to your Amiga's manual.

If you really get stuck then write in to Amiga Answers, enclosing a stamped, self-addressed, envelope for a quick reply. otherwise you could wait up to three months for the answer to appear in an issue of the magazine.

We regret that we CANNOT TAKE ANY TELEPHONE CALLS regarding the SuperDisks. They are too time consuming to answer and we are often busy getting the next issue of **AUI** together for you.

Reader's Contributions

Our SuperDisks are crammed full with the cream of the Amiga crop. Many of the programs are created especially for us and released into the Amiga community through **AUI**. You can make it possible for **AUI** to share this top quality software with tens of thousands of other Amiga users.

If you have a masterpiece that you think can cut it with the best, then please send it in to us for evaluation. You never know, you might end up famous. The address is: Reader's Contribution, Amiga User International Magazine, Unit 2, Utopia Village, Chalcot Road, London. NW1 8LX

Alternatively you could send us a UU-encoded file via e-mail to:

amigauser@cix.compulink.co.uk

Please remember we prefer stand-alone compiled programs, and don't forget to include any libraries or fonts that it might need - providing they are distributable. We don't want you to get done for piracy!

Shareware

Many of the programs on our SuperDisk are Shareware. This means that you can try them out, but if you use them regularly you should send the author the requested registration fee. This not only encourages the author to produce more work, they feel wanted, but you will often receive the latest version of the software.

Registration fees can be up to £20, but most hover around the £5 mark. You can send cheques to UK addresses, but those abroad often prefer US dollars. These can be sent by registered post, but sending cash is always a risk and it's your money.

Some authors may only want a postcard to see how far their program has got. Do make their day. after all, they made yours.

Compatibility

All the software on the SuperDisks runs on a basic A1200, most will work on a 2Mb equipped A500+. We deem this to be the minimum specification of Amiga nowadays and, as the A1200 is now the entry level machine, many programmers are only developing for this platform.

If you are still using Kickstart 1.3 then we are sorry we cannot accommodate you. To get the best out of your Amiga you must have a decent amount of memory - a minimum of 2Mb - and Kickstart 2.04/Workbench 2.0 or better.

Documentation

All the documents that accompany the programs on these SuperDisks can be read by simply double-clicking on their respective icons. The text will scroll under mouse control, and to exit just press the [Esc] key - top left on your keyboard.

Some files are in AmigaGuide format. They are recognisable by the node information within the text. To take advantage of these 'hyper' documents, you need to have either AmigaGuide or Multiview installed on your system, and to change the default reader tool from 'least' to the appropriate tools you usually use.

Any word processor should be able to load the document files as they are in an ASCII format. **AUI Enjoy!**

Quantum Leap



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Team Wales
A Eye for the Movies

Shutting Up Shop

You will have no doubt noticed that the Escom shops in the high streets have their doors firmly bolted. No great surprise really, particularly to the saddened readers of **AUI** who have followed the sorry tale of Escom ever since they took over Commodore lock stock and Amiga. The company stopped trading in July after receivers Deloitte & Touche failed to find a buyer for the chain of ex-Rumbelow stores.

So much for the news (see **AUI** July 96) from head office in Germany that there would be no job losses in the UK. The 850 staff of the 113 stores that were left will be feeling rather sore, not only at the closure, but at the pretty shoddy handling of the whole thing. No comfort then for them to know that Escom AG, the German parent was put into bankruptcy proceedings subsequently.

Deloitte & Touche said it was closing Escom UK because "There was no serious interest in buying it as a going concern. Trading was disappointing, and the costs of continuing the business were high. Added to that, the stores, formerly Rumbelows outlets, were in poor locations and there was an oversupply in the retail computer market with rapidly declining margins in the sector." Well, well, what a surprise! Didn't Escom know that from the beginning? What did they think they were doing, entering a market where there was no competition?

We have recently learned that Escom didn't get a year rent free on the Rumbelows shops as we previously reported. It was 15 months! That was obviously the basis for their "strategy" to change the face of PC buying in the UK. Yet all they did was lure plenty of inexperienced home buyers into their shops for cut-price machines. And, according to reports, the PCs were pretty poorly put together too. As tacky, someone said, as their very silly advertising campaigns based on that awful "Man from Escom" and followed up by a square-spectacled Nerd who was supposed to represent the typical home computer user.

What is serious for those gullible computer buyers is that it seems that ICL, who were responsible for the warranty repair service for the PCs and possibly the few Amigas that Escom managed to sell - were not paid for some warranty service contracts. Therefore they cannot accept requests for repairs under the warranties. For those of us who have followed the unpleasant story throughout, it seemed that Escom had as great a death wish - and the ability to misjudge and mess things up - as had Commodore.

The pity of it is that the whole disaster that Escom brought upon itself stemmed from the PC debacle and had nothing to do with the Amiga. Yet the Amiga has suffered as much as Escom and its duped customers.

What the Future Needs

The British Film Institute (BFI) has more than 300,000 films, videos, and television programmes preserved in the Hertfordshire Conservations Centre as part of its National Film and Television Archive. Having one of the most extensive collections of moving images in the world, the BFI now has to decide what future generations might like preserved for them. Most early cinema films vanished after their initial release, say BFI, as did much of the first thirty years of television. To avoid such a thing occurring to a more modern medium, the BFI has started as a millennium project of research and preservation, an investigation for video/computer games, looking at the recent history of videogaming and preserving it.

The first project is the Interactive Encyclopaedia of Video and Computer Games, currently being developed as a consumer CD-ROM. Every game published in the UK since 1981, totalling 6000+ is intended to be listed, together with details of the machines, publishers, news stories, people, and facts providing what they claim will be the most detailed history of videogaming yet.

The BFI is cataloguing and preserving selected software, hardware, and publications in the Archive, and has involved children scouring the country for rare games thought lost forever. The search was launched in conjunction with BBC's Live and Kicking and Newsround.

If you have any classic games to contribute, or hardware for their interactive exhibition at London's Museum of the Moving Image on Southbank (currently running until May 1997) contact:

Tony Hetherington Tel. 0171 255 1444

Two Way Speech

U.S. Robotics has announced a new version of its Sportster modem that will bring, they say, full duplex speakerphone and professional office message centre capability to the small or home office. The Sportster Voice, price £199, is available as internal or external versions for PCs, and from Autumn 1996 as an external modem for Apple Macs.

All three models include the 33.6kbps speed enhancement which increases V.34's top speed from 28.8kbps and boosts throughput at lower speeds. All models, say USR, integrate the capabilities of a high speed modem, fax machine, full duplex, hands free speakerphone and digital answering machine into a single, compact device. The Sportster Voice products provide the full fax and data capabilities of a Sportster modem in addition to personal voice mail with multiple mailboxes, remote voice message and fax retrieval capabilities, fax on demand (not available on Mac). To use the voice features including the hands free telephone function, the Sportster Voice requires the addition of a headset, a powered speaker, or a soundcard.

All versions of the Sportster Voice modem are supplied with cables, the latest release of QuickLink MessageCentre (or MacComCenter) communications software. New features with QuickLink include speakerphone support and improved call handling with simultaneous data, fax and voice answer modes. PC compatible Sportsters also include free trial offers to AOL and CompuServe. All models carry a five year warranty and free lifetime technical support.

The Sportster Voice modems will connect to Internet Service Providers (ISPs) at 28.8kbps and 33.6kbps.

Contact: U.S. Robotics Ltd., 650 Wharfedale Road, Winnersh, Wokingham, Berkshire RG41 5TP Tel. 01734 228200

More Dosh for Tosh

Toshiba has announced that it expects worldwide PC sales of 2.4 million for the year to March 1997, with sales into the home of some 650,000 units. In addition, the firm has set a sales target of 30,000 units a month for its new notebook PC.

In the first quarter of this year, the company claimed that it raised its share of the notebook PC market in Japan to 13.5%, while its share of the US and European market grew to 25.7% and 24.8% respectively.

Now Directory Opus 5.5

GPSoftware have told **AUI** that they have released a new version the Amiga world's most popular directory and file management utility. After more than 12 months of extra development, Directory Opus 5.5 is not so much a simple update but a new version. It contains, say GPSOftware, many changes and enhancements over the original product.

After receiving many comments and useful suggestions from Opus users, GP claim that almost every facet of the new program has been enhanced. These improvements, they say, extend the original Opus 5 concepts and provide many significant developments in both operational power and usability.

GP told **AUI** that Directory Opus new features include:

- ◆ An Icon Action Mode that gives all the power of name mode Listers but with icons.
- ◆ An integrated OpusFTP capability that lets you access remote Internet sites directly from standard Opus Listers.
- ◆ A Filetype-specific pop-up menus that allow special menus for icons and files.
- ◆ Independent HotKeys.
- ◆ A scripts system that allows functions to be executed upon most system events.
- ◆ An Automatic Filetype Creator that allows you to create and test Filetypes with ease.
- ◆ A font viewer.
- ◆ Colour remapping of button and icon images with support for 'Magic Workbench' and similar systems.
- ◆ Cybergraphics RTG support.
- ◆ An enhanced clipboard that provides full cut, copy and paste in gadgets and file Listers.
- ◆ Listers that are no longer blocked while busy - you can now resize, iconify, and scroll busy Listers.
- ◆ Listers that can now display a background picture or pattern.
- ◆ A new internal Opus CLI that allows you quickly test commands and ARexx scripts.

For more details see their WWW page at <http://www.livewire.com.au/gpsoft/>

There are special upgrade offers for registered users, contact your dealer for them. New users in the UK can expect to pay £59.99.

Contact:

UK
Wizard Developments
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England DA1 2UH
Tel. +44 1322 527800
Fax +44 1322 527810

Germany
Schatztruhe
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Germany
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Fax +49 201 798447

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USA
Tel. +1 308 745 1243
Fax +1 308 745 1246

Cut-price Compaqs

A clutch of new Deskpro business machines has been launched worldwide by Compaq with expected retail prices up to 15 per cent lower than the previous range. The cheapest, with a 100MHz Pentium costs about \$1,100 in the US. That's just £750 or so. If the world's leading PC supplier gets its prices down that low, you can be sure that other manufacturers will follow, and we are seeing the sub-£1000 "multimedia" PC which is about 35% cheaper than a comparable machine cost this time last year.

CyberVision 64/3D

Recently we have received news of the launch of phase 5's (that's right, phase with a small 'p') "new generation graphics board", the CyberVision64/3D. Designed for use as either a Zorro-II or Zorro-III board it will work, say phase 5, in all Amiga A2000, A3000 and 4000(T) machines as well as with tower-installed versions of the Amiga A1200 equipped with Zorro-II backplanes. The CyberVision64/3D's modular design, say its manufacturers, allows a lower price with high-end performance and optimal expandability. That's a good idea, don't you think?

The core of the new board is the latest S3 Virge graphics chip with its powerful 3D capabilities. In conjunction with the new CyberGraphX 3D library the CyberVision64/3D offers a wide range of complex 3D functions for software developers, say phase 5. An MPEG decoder can be added to the board allowing real time MPEG audio and video decoding at full size custom screens or in Workbench windows, while for stereo audio output a dedicated line output jack is provided.

A second, optional, expansion will be a monitor switcher with integrated scan line doubler designed to fit into the Amiga's slot providing automatic switch over from the Amiga's original signal to the CyberVision 64/3D's output. Mechanical dimensions of the switcher and the CyberVision64/3D allow the use of both cards in the lower slot of A3000/A4000 models keeping 3 Zorro-III slots free for other expansion boards.

Contact:

phase 5 digital products
Tel. +49 6171 583787

Ricoh's Two In One

Ricoh are bringing out a new entry level copier/fax, the MV310 for £2350. Ricoh told **AUI** the machine offers advanced document handling, and has been specifically designed with a quality laser printing option and space saving features to home businesses, small workgroups, and office secretaries.

The MV310 is said to provide 9 second transmission times, a 45-page memory and a 30 sheet automatic document feeder which will accept up to B4 (yes, there is such a size) paper. Its flat platen design allows faxing, copying, and scanning directly from books and original artwork, say Ricoh. With the optional PC-Fax Expander, the MV310 also lets users fax directly from the desktop.

The MV310 incorporates a zoom facility, auto paper select, 250 sheet standard capacity, and a 100 sheet bypass tray. The multi-tasking MV310 can handle several jobs simultaneously allowing it to carry out two or three operations at the same time.

With the optional printer interface (price £499), the MV310 also provides quality laser printing capabilities. The device offers users pseudo 600dpi at a speed of 10 pages per minute for both copying and printing ensuring clear and speedy document reproduction. The MV310, say Ricoh, effectively combines high quality faxing and copying in one single machine, which forms "part of Ricoh's ongoing strategy to offer customers greater choice in truly multifunctional products".

Contact: Ricoh UK Ltd.,
Ricoh House, 1 Plane Tree
Crescent, Feltham, Middlesex
TW13 7HG Tel. 0181 261 4000



Copy and fax from the same machine.

Photo-Real Printouts

Epson has replaced their award-winning Stylus Color II A4 inkjet printer with the Stylus Color 500. The new printer is a 720dpi four colour machine with what they claim is an improved ink formulation to ensure quick ink drying and density of colour on all materials from plain paper to A6 greetings cards.

Epson are targeting the SOHO markets as the new printer incorporates bi-directional parallel and Apple Mac serial ports as standard, and they say it is ideal for applications such as presentation graphics, reports, charts, and in-house DTP.

Priced at £250, the permanent piezo printhead does not need replacing to reduce running costs.

The printer drivers feature fast return to application times and a Status monitor showing the printer status and ink levels. Advanced colour matching features Win 95 ICM and ColourSync 2.0 compliance which they say, ensures the quality of colour reproduction. Epson Auto-Colour scans the page to be printed, automatically selecting the best settings for each item. The driver can automatically select optimum settings for images imported for either a video or digital camera.

The Stylus Color 500 includes a new software bundle for Windows users, Sierra Print Artist, that enables users to produce greetings cards, signs, business stationery and calendars.

**Contact: Epson UK Ltd.,
Campus 100, Maylands Ave.,
Hemel Hempstead, Herts.
HP2 7TJ Tel. 01442 61144**

Astounding Gold Disk

Remember one of the great names of Amiga software, Gold Disk? Yes, the creators of Professional Page and many other wonders of the Amiga software scene. First based in Canada and associated there with the growth of the then Canadian-based CBM, Gold Disk's boss Kalish Ambwani took the company to Silicon Valley in California because he thought that was where the computer action was.

He turned out to be right and Gold Disk grew and prospered until the fall of the Amiga caught up with them. Far-seeing Kalish had already put Gold Disk on the trail of the PC and, by the time CBM hit the skids, had produced some successful Gold Disk PC software, including a presentation package called Astound.

Gold Disk announced just over a year ago that it was completely, if reluctantly leaving the Amiga scene - and who could blame them when we know the subsequent history of the Amiga?

Now it seems that the old Amiga skin of the company, the Gold Disk name itself is to be jettisoned as a new company called Astound has been formed. It is to be run by Kalish Ambwani and the present team and will take over the ownership of what's left of the Gold Disk product line except Video Director, a PC development that Gold Disk ported from the Amiga, which has been sold on to another company. So any ProPage users who want upgrades are going to have to wait a long, long time, and if they have problems should forget Gold Disk and contact Astound. It's very saddening if not astounding news, isn't it?

Bill-ionaire

Bill Gates of Microsoft has topped the charts in Forbes Magazine list of billionaires. He is worth an estimated \$18 billion - about £12 billion. And perhaps you thought Bill was short for William!

HITACHI HAS CHIPS

Hitachi are claiming to have developed the world's first single chip, large scale integrated circuit capable of compressing video images in real time. The chips will be used in PCs to be launched by the company this Autumn that have built-in digital video systems.

As seen on Crimewatch

The Conservative MP for Dover and Deal recently visited a school in a deprived area of his constituency. Worried that these poor children were missing out on the benefits of home PC ownership he asked how many in the class had a PC at home. A surprised politician noticed that most of the grubby little hands were raised into the air. The class teacher later confided that the machines had probably all fallen off the same lorry!

HP makes imaging easy

Computer users will find it easier to work with photographic quality pictures and share them on their home computers using future products based on the new FlashPix imaging architecture developed collaboratively by Kodak, Hewlett-Packard, Live Picture, and Microsoft.

FlashPix is an open industry standard for digital imaging, with a new image file format at its core. Initial information has been made public with final specifications, developer toolkits, and interoperability test suites available later this year for Windows and Macintosh platforms.

All four developing companies said they plan to develop products based on the new FlashPix imaging architecture. Together the products will provide complete solutions for end users to input, use, and output pictures in fun and creative ways.

Other leading imaging providers-including Apple, Canon, Fuji, IBM, Intel, Macromedia, PictureWorks, and Storm Technologies, have announced their intent to support FlashPix technology.

Designed, it is claimed, to offer a complete solution for convenient digital imaging, the FlashPix architecture overcomes, say the companies, many of the obstacles that currently limit digital imaging. Using the new architecture should make digital imaging a faster and more intuitive experience. Pictures can, it is claimed, burst on-screen, transform rapidly when edited, move quickly over on-line services, and look impressive coming off the printer. It all sounds very exciting, doesn't it?

The FlashPix architecture, the consortium says, enables the use of high quality images that can be manipulated as easily as the low-resolution image files typically used on the World Wide Web today.

The technology can be hidden from end-users, freeing them from having to select image resolutions, colour options, and other technical details. The companies are claiming that users will be able to employ photo-quality images easily on standard multimedia PCs - a 486 computer with 8 or (preferably) 16Mb of RAM. If it all works out it could be a jump in technology and one that VISCop ought to be incorporating in future Amigas.

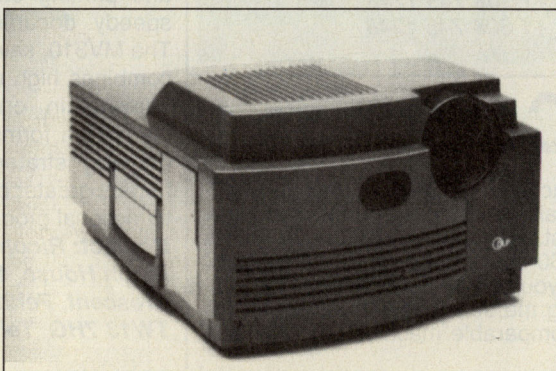
It's all done with mirrors

Proxima has launched the Desktop Projector 4100, a Digital Light Processing data and video projector. Its combination of image quality and system flexibility promises, say Proxima, to revolutionise the corporate presentation industry.

The basis of the new projector is "an innovative digital light processing projection engine" developed by Texas Instruments. The DLP technology, which uses arrays of microscopic mirrors, produces images whose colour accuracy, clarity, and uniformity of illumination are said to be superior to anything previously available in a Desktop Projection device.

The MediaExpress option delivers an integrated electronic presentation system for the DP4100 without a computer. It is based on Acrobat Player technology from Adobe Systems and their Portable Document Format (PDF), the cross platform standard for sharing electronic information. Using the Adobe Acrobat software, it is claimed, PDF files can be created in any software application on any system. (Oh really?)

Once the presentation has been saved on a floppy disk, it can be displayed by inserting the disk into the DP4100.



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Zoom 2	£18.95

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FREE!! Prima Shareware CD-ROM worth £10 with every order of CD-ROM software over £30

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Canon

Canon BJ30	£141.95
Portable mono printer, 30 page ASF built in.	
Canon BJ70 Colour	£187.95
Portable colour printer, 30 page ASF.	
Canon BJ210	£149.95
Mono printer, 720x360 dpi, colour upgradeable.	
Canon BJC 4100	£229.95
Quality colour/rapid mono printing, 720x360 dpi.	
Canon BJC610	£357.95
Enhanced colour printer, virtual 720 dpi.	
Canon LPB-460	£279.95
Windows 95 only, 4 pin GDI Laser Printer.	

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Simple as easy as ABC to use 24 pin printer. Comes as standard with 50 sheet Auto sheet feeder. Tractor feed optional at £34.99

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600 dpi colour, 1200 dpi mono printer, Use's New Advanced Micro Dry print Technology.

£379.95

EPSON

Stylus 500 Colour

720 dpi, 4ppm Black, 2ppm Colour.

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Stylus Colour IIs

720 dpi, 2.5ppm Black, 1ppm Colour.

£176.95

Stylus 820

720 dpi, 2.5ppm Black, Colour Upgradeable.

£138.95

Epson LX-100+

24 Pin Dot Matrix Printer, 50 Sheet ASF.

£119.95

Epson LX-300

9 Pin Dot Matrix Printer, Colour Upgrade £34.95

£124.95

Miscellaneous

Printer Switch Box 2 way	£12.95
Printer Switch Box 3 way	£17.95
Printer Stands (Universal)	£4.95
1.8 Metre printer cable	£4.95
3 Metre printer cable	£6.95
5 Metre printer cable	£8.95
10 Metre printer cable	£12.95
Parallel port extension cable	£9.95

Studio 2 New version 2.11

"If you want to get the best possible results from your printer, get a copy of Studio".
£49.95 or £44.95 when purchased with a Printer.

HP

HP340 Portable

Colour Upgrade £34.95

£220.95

HP600

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£189.95

HP600 Colour

Upgrade to full colour only £34.95

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HP870 Colour

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£409.95

HP 5P Laser printer

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£743.95

Consumables

Ribbons

Citizen Swift/ABC mono	£3.95
Citizen Swift/ABC colour	£12.95
Star LC70 mono ribbon	£12.95
Star LC10/100 mono	£3.65
Star LC10/100 colour	£7.95
Star LC240c mono	£13.95
Star LC240c mono	£6.95
Star LC240c mono	£5.95
Star LC24-10/200/300 Colour	£13.95
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Full colour kit (88ml)	£27.95
Bulk refills (125ml)	£24.95

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Canon BJ10/Star SJ48	£17.95
Canon BJ200/230	£18.95
Canon BJ30 (3 pack)	£12.95
Canon BJC 70 mono (3 pack)	£10.95
Canon BJC 70 colour (3 pack)	£17.95
Canon BJC 4000 mono (single)	£16.95
Canon BJC 4000 mono (single)	£6.95
Canon BJC 4000 mono high cap.	£28.95
Canon BJC 600e mono high cap.	£8.95
Canon BJC 600e colour	£7.95
HP Deskjet colour	£24.95
HP Deskjet double mono	£22.95
HP Deskjet 640 double mono	£23.95
HP Deskjet 660 colour	£25.95
Epson Stylus mono	£13.95
Epson Stylus colour	£27.95
Epson Stylus Col. II/S/820 Mono	£17.95
Epson Stylus Col. II/S/820 Colour	£24.95
Star SJ144 mono/colour (single)	£7.95
Printer Dust Covers	£5.95

Paper

Fanfold (tractor feed) 500 sheets	£6.95
Fanfold (tractor feed) 1000 sheets	£12.49
Fanfold (tractor feed) 2000 sheets	£21.49
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Single sheet 1000 sheets	£12.49
Single sheet 2000 sheets	£13.95
Epson Stylus 720 dpi paper pack	£21.95
H. Packard Glossy paper pack (10)	£9.95
High quality Inkjet Paper (500)	£9.95

Disks

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10 x £3.45	100 x £26.95
30 x £9.95	200 x £49.95
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10 x £4.95	100 x £41.95
30 x £13.95	200 x £76.95
50 x £21.95	500 x £175.95

Bulk DSHD

10 x £3.95	100 x £29.95
30 x £10.95	200 x £55.95
50 x £16.95	500 x £129.95

Branded DSHD

10 x £5.95	100 x £44.95
30 x £15.95	200 x £82.95
50 x £23.95	500 x £189.95

Disk labels x500

£6.95

Disk labels x1000

£9.95

PowerPC Boost

The announcement by chip maker VLSI Technology of a new chipset will improve the likelihood of PowerPC machines capable of running both the Mac OS and WindowsNT appearing soon. The chips enable PCI bus to Mac peripheral interface connectivity, as well as other bus and graphics acceleration functions.

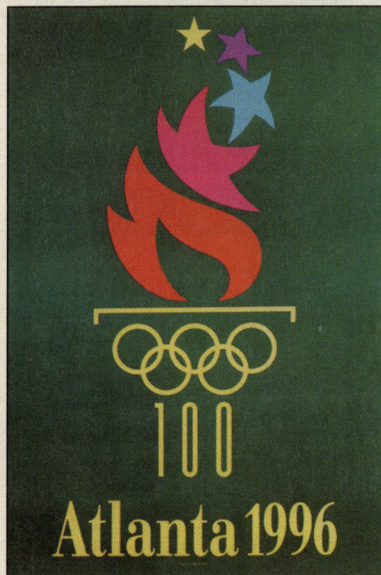
Prospects are improving for the PowerPC computer now that IBM has licensed the Mac OS, and Apple have concluded a deal with Microsoft to assist in the porting of WindowsNT to the platform. This could all be good news if anyone wants to develop an Amiga incorporating the PowerPC technology which several companies have claimed to be hoping to do. Hope springs eternal.

Olympian Amiga

A little known fact lost among the thousands of statistics generated, frequently incorrectly, by the recent Olympic Games in Atlanta was the unique opportunity the Amiga had to demonstrate its worldwide appeal, especially among news and media professionals from Europe and the Americas.

Several US-based Amiga companies joined forces to provide computer support to the press agencies attending the Games with a series of high-end Amigas placed at the heart of the media room for use as an on-site editing tool for video footage taken by various reporters and media producers.

At last, the Amiga got some positive media coverage and a chance to demonstrate its prowess at handling complex broadcast and video graphics courtesy of Keith Cagle, of Virtual Reality Productions, who organized the event space; Dave Zembecki of QuickPak; Bob Hoffman and Daneta Colbach of NewTek; June Lavenberg of Anti-Gravity Products; and Bob Wolter of Micropace.



More Jurassic

The sequel to Jurassic Park looks set to be the event movie of 1997, and movie studio MCA Universal is already signing up lucrative licensing deals. Dream-Works Interactive and Sega have jointly reserved the computer and video game rights, and Hasbro will retail toy spin-offs. Jurassic Park: The Lost World, directed by Steven Spielberg, is due to open next summer and will, as the original, use the Amiga for some aspects of the special effects.

Quotes of the Month

"We're coming further close to the point where things that are man-made will match any definition of life that the biologists can come up with."
Dr. David Cliff, lecturer in science at the University of Sussex.
Come back, Hal, all is forgiven?

Vulcan is Back

After a year's absence from the High Street, Amiga specialist Vulcan Software is returning to retail. The firm withdrew its products, of which Valhalla was the best known (a demo of which is on this month's SuperDisk), because of what they said was a lack of support from distribution. They have sold directly to consumers through a mail order service, but are returning to the shops with the launch of a MiniSeries range of titles.

With prices ranging from £12.99 to £17.99, the products include Valhalla 1, 2, and 3, Timekeepers, and Hillsea Lido. Three further titles will be released over the next few months - BOGRats, Jetpilot, and Valhalla 4.

Paul Carrington, Director of Vulcan Software, told **AUI** "We withdrew our products from retail because we had no support from distribution. We are not going back completely now; this is an experiment and we will still supply direct to consumers via our mail order service. We had a lot of retailers asking for more Amiga products, which is why we decided to relaunch the range to the trade".

Sony Speeds Up

Sony have designed a new eight-speed CD-ROM drive to run the most sophisticated multimedia discs quickly and reliably, they claim. The CSD-88EE has been optimised to run games, animation, music, and video without, the company says, compromising pictures. A sustained data transfer rate of 1.2Mbit/s allows full support of the MPEG2 video, offered, they claim, only by eight speed CD-ROM and DVD drives.

At continuous eight speed reading, the CSD-88EE uses less than 30%



Sony say they make only from eight speed parts.

of CPU power, ensuring, they say, motion pictures that run smoothly and efficient multitasking on PCs. An optical pick-up device and eight speed motor designed for minimum vibration at high speed combine to reduce random access time to 160ms. The unit is also completely sealed to prevent dust from damaging the optical unit, and is airtight to reduce the power consumption necessary to prevent overheating. The CSD-88EE is, Sony say, "a long lasting, reliable CD-ROM with a mean time between failure of 100,000 power on hours."

Commenting on the launch of the new Sony CD-ROM drive Neil Berville, sales and marketing manager of Sony Computer Peripherals, told **AUI** "Sony has built this drive from scratch using specially designed eight speed components, rather than using parts from slower CD-ROM drives in an eight speed drive."

The drive supports all main CD-ROM formats and is fully ATAPI compliant. It is currently available for £115. A full installation kit including software, user's manual, and audio cable is provided. The drive can be horizontally or, unusually, vertically mounted.

Contact: Sony Computer Peripherals & Components UK, The Heights, Brooklands, Weybridge, Surrey, KT13 OXW Tel. 01932 816000

Diary Dates

- ◆ Oct. 2nd. - Oct. 4th. **Internet96**, Business Design Centre, London. Tel.
- ◆ Oct. 2nd. - Oct. 4th. **Windows NT '96**, Olympia, London. Tel. 01256 381456
- ◆ Oct. 30th. - Nov. 1st. **Networld & Interop '96**, Earls Court, London. Tel. 0181 849 6262
- ◆ Nov. 6th. - Nov. 9th. **Apple Expo '96**, Olympia, London. Tel. 0171 388 2430
- ◆ Nov. 27th. - Nov. 28th. **SoftDev & WebDev**, Olympia, London. Tel. 0181 541 5040
- ◆ Nov. 28th. - Dec. 1st. **Computer Expo**, Olympia, London. Tel. 0181 586 8374
- ◆ Nov. 28th. - Dec. 1st. **Star SOHO Expo**, Kyalami Conference Centre, Johannesburg, South Africa. Tel. 27 11 784 3405
- ◆ Nov. 18th. - Nov. 22nd. **COMDEX**, Las Vegas, USA.
- ◆ Dec. 3rd. - 5th. **Online 96**, Olympia, London. Tel. 01865 388000

MODEMS AND INTERNET PACKS FROM £39.99...

Whether you want to make new friends, swap ideas and programs, or do some serious research, a modem will open the door to a world where almost anything is possible. A modem has already become an essential part of many Amiga user's computer set-up and here's your chance to join the swarming crowds with one of our excellent

2400BPS 'STARTER' Pack. . . £39.99

An ideal package for those wanting an insight into Comms at a super low price. This 'Starter' pack consists of a 240 band modem, with all connecting cables. Ncomm Software. Archivers disk, as well as full info on how to access our BBS. You will be able to log into our System and take as many files as you wish, free of charge. This great pack is limited availability – hurry!

14,400bps 'NOVICE' Pack. . . £89.99

Up the pace with this pack, a faster 14,400bps modem, with data transfers in the region of 100k per minute. This still remains the most common modem speed and can be used on any Amiga. Supplied in this pack are the same items as the package above including everything you need to start logging into BBS services straight away! Info is also supplied on accessing the Internet.

28800 'EXPERT' Pack. . . £159.99

An even faster modem, twice as fast as the 14,400 bps model (100k in less than 30 seconds), plus this modem is also capable of sending and receiving faxes from your Amiga desktop.

For intensive BBS and Internet access, this package is highly recommended to reduce your online telephone costs. Full BBS information and internet access details are included etc.

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33,600 'LIGHTNING' Pack. . . £219.99

Currently the fastest modems available! The US Robotics Courier and Sporster Vi Fax/Modems boast data connection speeds of an amazing 33,600bps, that can transfer 1Mb of data in under 4 minutes at high speed. If you access the Internet excessively, then this is the pack for you. Most Internet providers as well as the top BBS system, run their lines at V34+ 33,600bps for ultra-high speed connections.

Please call to check availability

Amiga Excelerators. . .

Apollo 1220 28Mhz £89.99
Apollo 1232 50 Mhz £179.99

OTM Software Titles. . .

Virtual Karting (AGA Amigas) £16.99
Watchtower (AGA) – NEW £17.99
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Touring Car Challenge £9.99

Amiga Printers. . .

Star LC90 (9Pin) £124.99
Star LC10 (Colour) £149.99
Star LC240 (24Pin Mono) £144.99
Star LC240C (24Pin Colour) £169.99
Citizen 'ABC' Printer £179.99
Canon BJ30 (Inkjet Mono) £219.99

Amiga Hard Drives. . .

3.5" EIDE 540 Meg £139.99
3.5" EIDE 810 Meg £189.99
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To order by post, simply write your order out clearly on a sheet of paper and send with a Cheque/Postal Order payable to 'Megatronix'.

Or supply your credit card details.

To order by phone: Call the number below, armed with your credit card for immediate processing.

Delivery is normally within 3 days, but please allow upto 14 days.

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Megatronix Software, 21 Tiled House Lane, Brierley Hill, West Midlands, DY5 4LG

A Claim to Loss

A bad year for Acclaim, as they have reported net losses of nearly \$60 million - about £40 million. The US-based firm's net loss for the first nine months of fiscal year 1996 is \$59.1 million, compared to profits of \$38.7 million during the corresponding period in 1995.

Though not of major size in its own right, the third quarter loss comes despite confident statements at the end of the second quarter that its next trading period would be profitable. (They weren't far out then!). The company still insists, however, that the pain of switching to new formats is beginning to ease and that better times are not too far away. (Oh really?) During the third quarter of 1995, some 73% of Acclaim's turnover came from 16-bit cartridge games and only 9% from CD-ROM which made up 27% of all sales.

Acclaim is banking on further exploitation of the PC market, but is also confident that new console formats such as PlayStation, Saturn, and N64 will aid a revival in its core video games business.

As can be seen from its previous year's figures Acclaim, as with many of the games companies, was riding high when the games consoles were dominant, but when the PC came in and the consoles, especially the 16-bit ones, faded from the scene, they and the other cartridge-based games firms took a hiding. Many of them got stuck with loads of unsold cartridges which they had already paid big for to Sega and Nintendo and that the public wouldn't be persuaded to buy.

The one company that stood out from the cartridge disaster was Electronic Arts who had the foresight to put their development

mainly into CDs and had pulled back from their late, but profitable involvement with the cartridge consoles. Yet even they, according to their latest figures, have suffered in the fall in sales of all electronic games and their latest profits were down to a measly \$30,000 for their last quarter.

Is the era of the electronic game as a gorgeous moneymaker coming to an end? Probably not entirely. The latest Grand Prix version is reputed to have sold over 100,000 units in four weeks in Europe alone, but the high on the hog days when any old rubbish could be released in big priced cartridges and the cash would pour in from the millions of tender aged and gullible kids and their indulgent parents, those days certainly seem from Acclaim's battered state seem to have gone. Good riddance?

Anxious Moments

A psychology lecturer at Strathclyde University claims that young people who have grown up with computers suffer more anxiety than older, less experienced users who have technology forced upon them in the workplace. Nicholas Bozionelos studied 50 18-23 year olds and a group of 170 older people aged 30-43 at a business management school. Apparently over a third of the younger group showed 'computer anxiety' classed as 'avoidance behaviour' compared with one in five of the older group.

"New computer applications are arriving in the marketplace at an increasing rate. They (young people) see everything changing and they feel they are not able to keep up with the change", he said. "People in their thirties and forties know they may have to keep up with one or two applications in their work, and are comfortable with this."

What's this? The wrinklies better than the juveniles at dealing with technology? What about all those stories of the kids who show their parents how to programme the VCR? Could the parents, especially the fathers, just be a tad lazy and prefer to let someone else do it? Could programming the VCR be the equivalent of bringing the slippers in the days of Queen Victoria? It all sounds a bit far-fetched, doesn't it?

Housewives choice

For those of you who still consider games to be the domain of teenage boys, wrong thought! A new report by the Interactive Digital Software Association (IDSA) reveals that women and consumers over 18 years of age are now the groups using and influencing purchasing of interactive and entertainment hardware and software. (Why are women a separate group from consumers over 18?)

The survey was carried out on behalf of the IDSA by research firm NPD. The results were based on a nationally representative sample of 1,700 households owning either a PC, games console, or both. Very young people still make up a significant proportion, but 72% of those using PCs for entertainment software are over 18 and also make up 83% of people who have input into game buying decisions. Women have apparently become a significant part of the market with 40% of all those using PCs to run entertainment software and 50% of PC users having the most influence over buying decisions were female. (So now you know what 'her indoors' is doing while you are slaving over a hot PC at work, chaps!) 38% of hardware owners said they were extremely, very, or somewhat likely to buy a new system within the next six months, which translates to around 15 million households - a likely story!

Quotes of the Month

"With all we've been through, the last thing the Amiga community needs is more lies."

Dave Haynie, ex-VISCorp and now PIOS Project Manager Hardware.

When you read the Escom item, you know what he means. Escom must have been in trouble and were willing to let the Amiga die without revealing the situation in which they had left the computer. We must hope that VISCorp, for whom Dave Haynie now works, will tell the truth to the Amiga community. It's not always easy to let the world know what's going on in a commercial situation, but getting the Amiga community on its side by being open and straightforward might help VISCorp make a success of the Amiga. We are all tired of lies and deceit and would prefer the truth, even if it hurts.

Microsoft into Electric Gravity

Microsoft has bought US firm Electric Gravity Inc., the creator of the Internet Gaming Zone which features classic games such as bridge, chess, spades, and draughts, with log-ins currently registering at 30,000 each week. "We believe that gaming across the Internet is a new and exciting area for the games industry and by combining Electric Gravity's expertise in this field with our game development team, we will be one of the big players in this emerging market", commented Microsoft's games product manager Stephen McGill.

Is there no area of the electronic world that Microsoft does not want to control? Probably none, but then wouldn't you want to do the same if you had Microsoft's and Bill Gates' money? Or would you just surround yourself on a sunny desert island with unimaginable luxury and lots of cool drinks and willing slaves?

Quotes of the Month

"Everyone talks a good battle, but let's face it, Summer is always a crap time for selling games. Until somebody invents games that feature 32-bit lager, quad speed bikini-clad girlies, and on-line barbecues, July and August will always be less profitable than the average Escom store."

Tony Pearce, Sales Director, Telstar Electronic Studios.

Less profitable than the average Escom store? Now that's a definition which must be the absolute in non-profitability, especially as they are all closed now, at least in the UK, to which Tony Pearce was doubtless referring. Although the previous Quote of the Month, in which Dr. David Cliff of Sussex University commented on the way that technology is moving to imitate life, would suggest that Tony Pearce's hope for games with quad speed bikini-clad girlies and so no should be on the way to being fulfilled. Somehow we think that it won't be in our time. And we're not sure whether we're glad or sorry.

The Ultimate Ride

Hitching a ride in a cab in Aspen, Colorado, could cost you as much as \$75. You would not be travelling in any old hack, for this would be the "Ultimate Taxi." Within the cab, driven by Jonathan Barnes, the passengers are entertained by a laser light show, holograms, electronic jazz music, and dry-ice 'fog'. While on the move, images of the passengers are transmitted to a Web site for worldwide consumption, so no backseat canoodling.

Amiga Mice

Replacement Mouse	£6.95
MegaMouse 400	£9.95
MegaMouse Plus (3 Button)	£12.95
Optical Mouse	£29.95
Crystal TrackBall	£34.95
Pen Mouse	£19.95
Auto Mouse/Joystick Switch	£12.95



Ram Boards

A500 512K Ram Board w/o clock	£15.00
A500+ 1Mb Ram Board w/o clock	£20.00
A600 1Mb Ram Board w/o clock	£20.00
A600 1Mb Ram Board with clock	£30.00
A1200 2Mb Ram Board with clock	£69.95
A1200 4Mb Ram Board with clock	£79.95
A1200 8Mb Ram Board with clock	£119.95
FPU 33MHz	£33.00

Controllers

AlfaPower Hard Drive controller A500	£99
AT-Bus Hard Drive controller A2000	£69
Oktagon 2008 SCSI controller	£99
Multiface III	£79

Spider

NEW MULTI I/O CARD FOR AMIGA 1500/2000/4000

Active 8 port high speed serial card. Multiboard Support 57600 Baud rate on all channels simultaneously. Output through 8DB25 plugs. Electromagnetic interference suppression. Suitable for Chatline operations, Internet (SLIP/PPP/Dial up). Remote terminals, Barcode readers, Serial Printers. Improve the efficiency and productivity of your Amiga with SPIDER£299

New AlfaQuatro

Specially made hardware and software. Allows 4 ATAPI devices, ie, 2 IDE hard disk & 2 IDE CD Rom to Amiga 4000 internal IDE controller, through Alfapower on Amiga 500/500+ and possibly Amiga 1200 comes, with full IDE Fix software£59

Connexion New Ethernet Card

FOR AMIGA 1500/2000/4000

Features:

- 10Mbit Ethernetcard for A2000/3000/4000
- 16 Bit-Zorro-Bus Design – gives highest transfer rates while minimizing CPU load
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Floppy Drives

External Floppy Drive for all Amigas	£39.95
Internal Floppy Drive A500/500+	£35.00
Internal Floppy Drive A600/1200+	£35.00
A-Grade Double Density box of 50 disks including colourful labels	£13.00



IDE Hard Drives

FOR AMIGA 500/500+ 1500/2000/4000

AT-Bus hard drive controller A2000	£69.00
Alfapower-0 controller 0Mb	£99.00
Alfapower-120 120Mb hard drive	£159.00
Alfapower-250 250Mb hard drive	£179.00
Alfapower-420 420Mb hard drive	£199.00
Alfapower-540 540Mb hard drive	£209.00
Alfapower-850 850Mb hard drive	£229.00
Alfapower-1.0G 1.0Gig hard drive	£249.00
Alfapower-1.2G 1.2Gig hard drive	£269.00



Memory for Alfapower-Plus (new) marked Alfapower-Plus

2Mb SIMMS	£30.00
4Mb SIMMS	£30.00
8Mb SIMMS	£60.00

Memory for Alfapower (old)

Every 2Mb Zip-Rams	£89.95
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IDE 2.5" Hard Drives

FOR AMIGA 600/1200

IDE-120 120Mb hard drive	£79
IDE-210 210Mb hard drive	£99
IDE-250 250Mb hard drive	£119
IDE-340 340Mb hard drive	£120
IDE-420 420Mb hard drive	£199
IDE-540 540Mb hard drive	£199
IDE-810 810Mb hard drive	£249
IDE-1.0G 1.0Gig hard drive	£349
IDE-1.2G 1.2Gig hard drive	£399

IDE 3.5" Hard Drives

FOR AMIGA 1200

IDE-540 540Mb hard drive	£129
IDE-850 850Mb hard drive	£149
IDE-1.0G 1.0Gig hard drive	£175
IDE-1.2G 1.2Gig hard drive	£179
IDE-1.6G 1.6Gig hard drive	£199
IDE-2.0G 2.0Gig hard drive	£239

Miscellaneous Products

DD floppy disks (50) including multicoloured disk labels	£13.00
DD floppy disks (100) including multicoloured disk labels	£25.00
3.5" Hard Drive Kit for A600/1200 + Install software	£15.00
Colourful Mouse Mat	£5.00
Optical Mouse Mat	£5.00
2 in 1 Scanner/Mouse Pad	£9.95
Contoured Wrist Pad	£5.50
Plain Wristrest	£3.50
2Mb SIMMS	£30.00
4Mb SIMMS	£30.00

CD CLEANERS

CD Rom Cleaner	£6.00
Automatic CD Rom Cleaner (battery powered)	£19.95
Laser Lens Cleaner	£9.00

Complete CD Rom for all Amigas

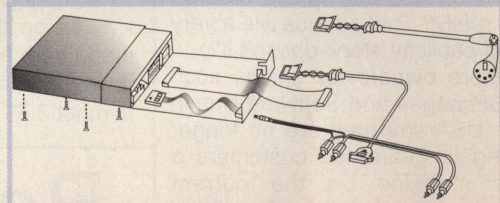
Quad Speed CD Rom for A500	£129
(needs Alfapower V6.8 or higher)	
Quad Speed CD Rom for A600/A1200	£149
(inc CD32 emulation)	
Quad Speed CD Rom for A1500/A2000/A4000	£109



External IDE CD Rom Upgrade Kit comprises of:

Metal case, screws, Power Connector (draws power from disk drive port) Power Connector (for optional external Power supply), IDE ribbon cable, Stereo Audio Cables.

Kit price £39



Special Offer for this Month

IDE 3.5" Hard Drive 1.7Gig (including cables & software)£195

IDE 2.5" Hard Drive 340Mb£120

Viper A1230 Accelerator Board and 8Mb 33MHz£180

External 8 Speed CD Rom drive complete (including cables, software and external case for Amiga 1200/600)£189

Speakers

Multi Media Speakers 25 watt (pmpo)	£29.35
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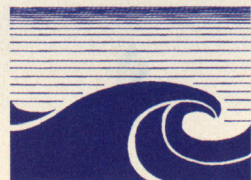


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No N64s To Sell? Shame!

Nintendo claims to have underestimated worldwide demand for N64 despite strong sales in Japan. Shipping to the US has not yet started, but they say that demand for the 500,000 pre-Christmas units so far allocated has surprised the company who have advised retailers "to cease taking orders". (Oh really? That sounds like a very good publicity story, doesn't it?).

Store owners for chains such as Babbages and Software Etc. in the USA say they are no longer willing to guarantee customers a new machine on the current launch day of September 30th. Shame!

They say too many customers have already made the \$20 down payments and are concerned that they - the store owners - failure to supply pre-ordered machines will damage their credibility and customer loyalty. Now isn't that self-sacrificing of them?

Customers are now being asked to simply leave their names without any down payments, and therefore without guarantees of delivery. And they are being urged "to stay in touch with retailers in order to find out how the supply situation changes."

Nintendo claim that they expect to have sold 1.4 million in the US by March 97. You have got to hand it to them too, what a great way to arouse the public interest and desire by saying "Sorry we aren't going to sell you one. Just keep in touch." We bet that there will suddenly be a tremendous effort on the part of Nintendo and its dealers to "get those poor eager buyers satisfied. They deserve it!" And Nintendo will sacrifice itself and its staff's leisure time bravely to manufacture enough to fulfil all those orders. It brings tears to the eye to imagine such dedication and willingness to help potential customers part with their money.

Set-top Update

The US Stellar One Corporation has signed a deal with Agfa to use their **Typographic font scaling technology** in their set-top boxes.

Down with Nickers

Nicking computers these days is big business. One company we heard of was burgled four times in three months and the thieves were picky too. They only took the PowerMacs, leaving behind ordinary Macs and PCs. Hardware can be replaced, but what is the worst aspect about such theft is the loss of data. Sometimes such data nicking can go on internally too.

A simple device to prevent unwanted access to computer data has been developed by ABA Systems. The Disk Drive Lock bars all access to the machine's 3.5" drive by slotting into the drive cavity and secured in place with the turn of a key.

All data is then secured in place and no-one can insert disks with viruses on them or download any data. The lock mechanism is made from ABS plastic, which is claimed to be less abrasive to disk drives than metal. Priced £12.95, the Disk Drive lock is designed to fit most 3.5" drives. Keep the nickers out.



Dropping the Nickers in it.

Bad Ad Game Banned

One of the games highlighted by **AUI** with its "bad" advertisement, what the late Kenny Everett would have said was "in extremely poor taste", has been banned in Germany. SCI's major PC CD-ROM battle of the sexes title, *Gender Wars*, cannot be released due to 'controversial and violent' content.

A SCI spokesman said "We're not really surprised that it has been banned in Germany, due to the controversial man versus woman content and the fact that there is quite a lot of blood involved in the game. It's OK for the UK and for the rest of Europe, but obviously the German authorities are a lot more strict about these things."

Could the German authorities have learned a thing or two from their history about what happens when murderous nonsense is poured out on the populace? There once was a novel written by Nobel Literature prize winner Sinclair Lewis called "It Couldn't Happen Here" which showed how complacency in any society can let the most horrible things take place. Do we really need "a lot of blood involved" to become the entertainment of any generation or gender?

MTV PC

MTV, the pop music network owned by Viacom, is about to launch a 24-hour cable television channel which will offer simultaneous viewing on PCs of conventional music videos and World Wide Web pages containing related data.

The M2: Music Television channel is claimed to represent one of the first applications for Intericast circuitry introduced last year by Intel and is an important support by a leading media group of efforts to advance the convergence of TV and interactive PC technology.

Intericast is a plug-in board which can receive broadcast or cable TV signals together with Web pages which are piped in via the vertical blanking interval - the unused portion of a TV signal which is visible in still photographs as a dark horizontal strip. This enables Web data to be inserted into TV transmissions at up to four times the speed of the fastest available PC modem.

Other entertainment groups in the USA planning to use the Intericast technology include NBC, and Turner Broadcasting which has plans for its Cable News Network.

Digital Disparities

There were embarrassed faces at Philips and Grundig back in the early 80s, when it was discovered that the 'supposedly' identical video recorders each company was manufacturing for the Video2000 system were not quite identical after all. Then, the Grundig player's audio head was a fractionally forward of that in the Philips' machine. Consequently tapes exchanged between machines would have different lip syncs.

Now a similar problem is affecting the Sony and Panasonic machines using the new Digital Video tape format. Panasonic's DVCPRO and Sony's DVCAM write data to the magnetic tape in a slightly different way. This became apparent when tapes were swapped between machines at the recent NAB Show in Las Vegas. While talking of digital products, we must mention that demands by Hollywood to build-in copy protection to DVD (Digital Versatile Disc) could seriously hamper the introduction of the new medium according to IBM. (See the article "Not the Next Big Thing?" in This TechnoWorld)

Signs of the Times

In the games industry's weekly record of top selling games, produced by ChartTrack, the PC CD-ROM Top 20 listing is replacing the Full Price Home Computer chart. A sign of the times, perhaps with this change showing the ever-growing importance of the CD format within the overall leisure market and the declining place of the ordinary floppy disk.

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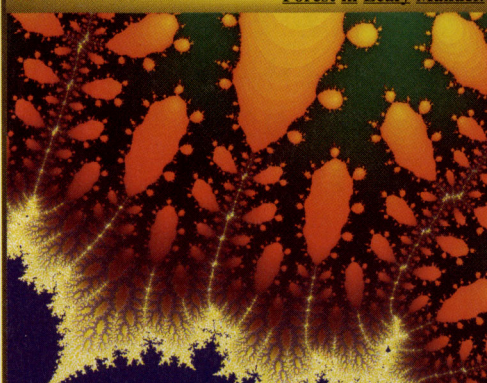
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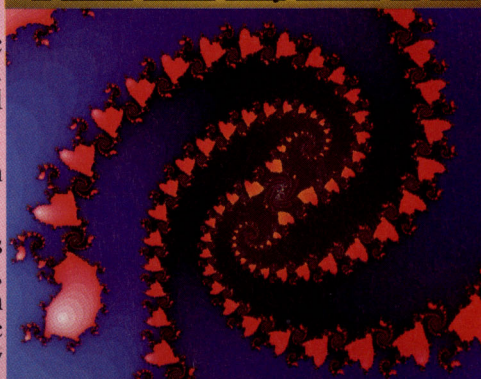
The Bubble Mandel: Ready to Explore it?



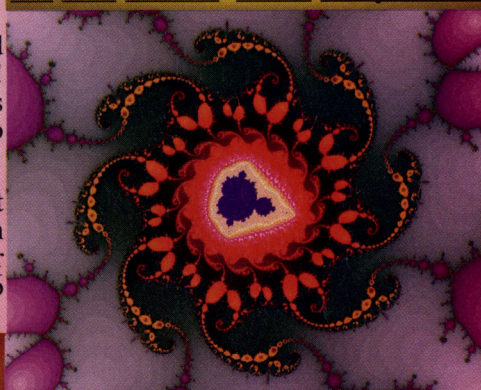
The Majestic Orchid Mandel! Forest in Leafy Mandel!



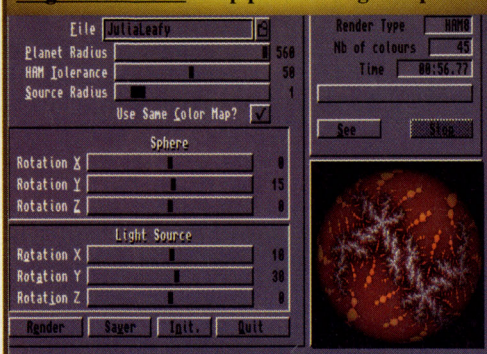
A Buble Julia: Only Art&F do it!!!



The Love Mandel: Hearts Everywhere!!!



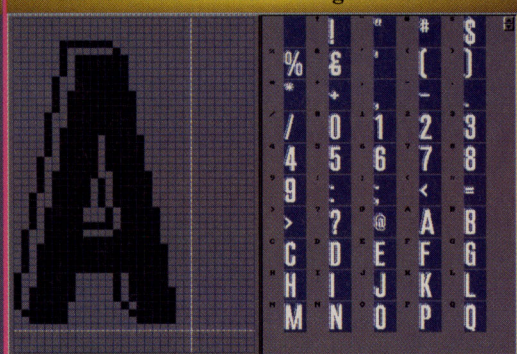
BigPlanet AGA: Map pictures on great spheres!



BigPlanet AGA allows you to map all your Amiga IFF pictures on great and very high resolution spheres with many special effects possible: simply adjust the light source angle and you get immediatly a very nice moon croissant!!! Very easy to use with its full graphic interface and its real time preview for all effects. For all AGA Amiga (1200 or 4000).

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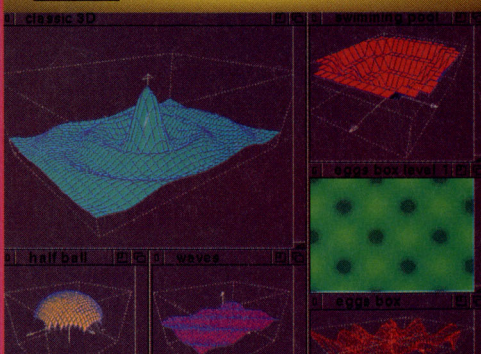
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Pointing to technology

Will mice become extinct? With the latest finger pointing technology, the 'traditional' mouse may be seeing the end of its usefulness for computer users. The way to move a cursor is now finger-led. Take the ALPS GlidePoint (Price £54.95). The manufacturers modestly tell us this is an innovative pointing device. Simply glide your finger, they say, over the touch sensitive pad and the cursor responds, or just tap on the pad with your fingertip to activate menus, dialogue boxes and icons.

Enhanced software provides additional features such as adjustments to speed and orientation, and there are three buttons for conventional use.

The ALPS GlidePoint is available in a small compact version for laptops called Portable GlidePoint (Price £49.95), and in a desktop version. Desktop GlidePoint is 40% larger and comes on a weighted base which can be angled or pivoted. It requires a PC 286 or higher.

4 into one will go

ALPS are also offering the CD changer in which 4 CDs can be loaded into a portable magazine. The ALPS 4X CD-ROM changer, price £225 and ALPS 4 disc magazine (Price £25) can be accessed by a single mouse click. The 4X CD-ROM Changer can handle a variety of other formats including CD Digital Audio, PhotoCD, CD-i, and VideoCD.

Right On E-On

New on-line games channel E-On is taking on rivals Sega and BT starting with an accusation that they fail to offer consumers value for money. Entertainment Online, who launched E-On, is claiming that at £5.99 a month, it is the first on-line package capable of being sold as outstanding value for consumers and attracting mass market appeal.

E-On offers consumers downloadable games, on-line multiplayer titles, a 'real time' entertainment magazine, a chat forum and home shopping. Users pay a flat £5.99 a month plus telephone charges. Distribution deals have been signed with America Online, UK Online, Pipex Dial, and EasyNet.

That's always a good way to draw attention to yourself - hammer the opposition for not giving good value. Maybe we should do that. Are there any Amiga magazines not giving good value? Any suggestions?

Time to move from Games

Time Warner's games division, Warner Interactive business, is to be sold off following negotiations with a unnamed prospective purchaser. The move comes following 18 months of changing its name and strategy as the parent company has decided "to concentrate on its core music and movie business". Time Warner has four other US based Interactive Software businesses: Warner Bros. Interactive, which deals with movie and TV show licensing; Time Warner Electronic Publishing, for edutainment and Internet software; Accolade, a part owned games developer and publisher; and Inscape, a wholly owned developer.

Time Warner is understood to be considering the selling off Inscape and its stake in Accolade, while WBI will continue its licensing activity with other games publishers.

With Pearson licking its wounds over the losses that it made by jumping in at the wrong time and buying Mindscape for an exaggerated sum, and Warners saying they are getting out of the interactive games market, it's clear that the realisation has struck these and other big companies who spent millions to get into the then fashionable electronic games business a couple of years back that it's not the profitable field they thought it was.

They thought it was like the businesses they knew, but it was a fad, and an expensive one that's not easy to make money out of unless you are very quick, in first and sell out sharpish - preferably to some big and rather stupid organisation that has more money than sense.

Intelligent City

Telekom Malaysia has announced that it intends to invest M\$5 billion (about £1.3 billion) over eight to ten years to lay the infrastructure for a multimedia super corridor stretching many kilometres to accommodate high technology companies.

Centred on Kuala Lumpur, the 600 sq km super corridor, 15km wide and 40km long, is to link Malaysia's present capital, Kuala Lumpur's city centre, a new international airport, and an administrative capital, Putrajaya, which is under construction at a cost of about £5 billion.

The Malaysian government hopes the area will attract information processors, software groups, Internet operators, microchip designers, and other high technology groups, to make Putrajaya the world's first intelligent city.

Sounds like the sort of place in which an Amiga user would feel at home.

QMS colour Laser

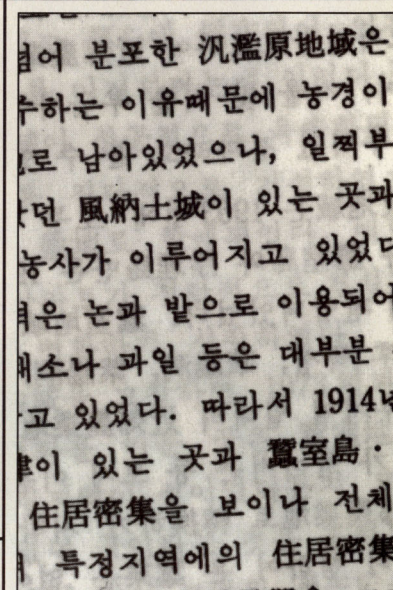
The QMS Magicolor WX print system has been designed, so its makers claim, to give documents the added impact of colour. Wow! Who would have thought that was the purpose of a colour laser? With 12 pages per minute mono, up to 6 pages per minute colour, and true 600dpi microfine toner for high quality output, the colour laser printer costs £2995. And so it should, do we hear you cry? A colour laser, isn't that what we have been waiting for? Yes, but at nearly three grand we may have to wait just a little longer.

Contact: QMS (UK) Ltd., Old Bridge House, The Hythe, Staines, Middlesex TW18 3JF Tel. 01784 442255

Sony's Headphones

Two sets of headphones, designed to be used with multimedia computers, have been launched by Sony. The entry level MDR-007PC, costs just £9 and the MDR-009PC, with a volume control and stereo/mono switch on the headphone cord, is priced at £19. The headphones weigh 40g and are PC colour co-ordinated. They come with an L-shaped stereo mini-plug, and three metre cord, and are designed for consumer, professional, and educational use, Sony say.

With the advent of sound, more and more stereo headphones will become a staple part of the hip computer users equipment - or so Sony doubtless hope.



Start Learning Korean?

Following Samsung's £550 million investment in the north of England, with their consumer electronics complex at Wynward Park producing over a million computer monitors a year, another South Korean company, LG Group has announced it is to build a £1.5 billion electronics foundry in Wales.

At least thirteen other investment projects have been announced in the UK by Korean companies since March 1995, and there are now over 100 Korean finance, trading, and manufacturing companies bringing 15,000 Korean residents to the UK. The move to Britain seems to have been prompted by increasingly high wage costs in South Korea. Its companies also want to establish a manufacturing base in the EU to avoid possible trade barriers.

There used to be an old joke about optimists learning Russian but pessimists learning Chinese. Perhaps we should all learn Korean now instead of some effete language like French.

The Midas Touch?

Microsoft has released figures to show that its annual turnover and profits have broken yet more records. Profits for the final quarter rose 50% to 87 cents, while earnings per share were 48% higher. Net earnings for the 12 months to June were 48% higher at \$2.2 billion - about £1.4 billion on turnover which jumped 46% to \$8.67 billion.

Fluctuations in technology share prices do not seem to have touched Microsoft although the company warned that the first quarter of the new year may be affected by the launch costs for the MSNBC interactive television news venture between Microsoft and the US's NBC television network.

Unsurprisingly, the company reported that progress for the 21st. consecutive year of turnover and profits growth was led by the Windows 95 operating system, introduced last year.

International success was marked by a 53% rise in turnover from overseas markets during the year while increases in supplying server software were reflected in doubled turnover during the quarter to the end of June. You have to admire a company that year after year just keeps on growing. Whatever anyone thinks about Bill Gates, the Microsoft boss, he knows how to keep a major company moving into new products and new areas all the time. No wonder he is listed - see other item in this NewsFile - as the world's richest billionaire. (Although that's not exact. The Sultan of Brunei is actually far richer, but for some reason they don't count him. Now there's a man who knows how to run a country and get rich!).

Shopping As Entertainment Only

The trend towards teleshopping is unstoppable, or so we are told. In a report from Gemini Consulting, it is predicted that electronic shopping will account for 30% of the UK retail market or £21 billion by 2005. "Most people will be doing the bulk of routine shopping from home or work with traditional retailers having to concentrate on providing shopping as entertainment for up-market or impulse buy goods for customers who enjoy the social interaction involved in the process of shopping", says the report. (That's assuming there are any shops left in which to "interact personally").

Team Wales

Perhaps, as a result of dealing with the Korean companies, Wales is set to become one of the first regions in Europe to produce a Regional Technology Plan. The plan is intended to give businesses, industry, and the academic fraternity the opportunity "to compete from a position of strength to enable Wales to become the market leader in technology."

The plan outlines the "Team Wales" approach to the region becoming a centre of technological excellence, with financiers, business, education, and politicians looking at innovation as a core business strategy. It all sounds a bit utopian, but it would certainly be a better option for the next generation of the Welsh instead of the only one their grandfathers had - going down the mine. That's unless you were Richard Burton or Anthony Hopkins.

A Eye for the Movies

Using an eye shaped device connected to PCs with a standard 25-pin parallel port (4Mb RAM) and Windows 3.1 is, according to Connectix, the latest way to make movies.

Quickcam is a still picture and moving video digital camera which brings video to PC systems with a 386, 486, Pentium or equivalent processor including portable computers with a parallel port. The QuickCam solution contains all the hardware and software needed, according to the company. Almost any application that supports Windows AVI movies or TIFF images can be used to create images using the software supplied or add movies and pictures to any applications.

A simple (they claim) start and set-up utility makes installation easy, by plugging in the cable and inserting the disk. Price £95.

Mercury goes for voice and data

A DataLink Frame Service is being launched by Mercury Communications to provide high-speed data transfer that supports LAN interconnect, Internet access, and file transfer. The service is part of Mercury's strategy to move from being a voice phone company to "a voice and data company, where data is a fundamental part of its core business." It expects that by the turn of the century, a significant part of its revenues will come from data services.

Speeding up the News

The technological division of News International, News Digital Systems is to launch digital data broadcasting which will enable information to be distributed from Web sites to desktop computers in seconds, they claim.

Specifications have been put to manufacturers to produce a card priced £164 to plug into desktop computers so they can receive huge bursts of information.

The company expects the service to reach beyond the fast delivery of Web sites to downloading training materials, software and financial information.

Pixar drops Commercials

Pixar Animation studios, mainly owned by Steve Jobs, co-founder of Apple Computer, has announced that it is to stop making television commercials to concentrate efforts into film and interactive products.

The electronic film-making company was responsible for making Disney's Toy Story, the first full length feature animated entirely by computers in three dimensional style. Two other films are planned as part of the three film deal with Disney including a remake of The Magnificent Seven, set in the insect kingdom and provisionally called "Bugs". (Jobs should know all about those from his Apple days.)

The move from commercials marks a break with the company's roots and the main source of cash flow, which helped Pixar venture into the mainstream entertainment industry. Their earnings this year have been boosted from the release of an Interactive CD-ROM and the planned distribution of the home video version of the film. Steve Jobs who set the style for a generation of young techno-entrepreneurs has never been short of a buck since his success at Apple and even the final coup led by his appointee John Sculley that pushed him out. (What goes around comes around. And later Sculley got his push in the same way!) Yet Jobs is both talented and a good investor. He has made himself a billionaire again with his interest in Pixar which has shot from being a loss-making company that depended on creating commercials for US TV to a very, very rich computer effects company deigning only to make feature films - and on the strength of a single but very successful movie, Toy Story. It's more a fairy story.

Quotes of the Month

"The wealth creating industries of the future will include micro-electronics, biotechnology, robotics, and software. Uniting this group of emerging industries is a common source of competitive advantage - intellectual capital. Although only about 10 to 15 years old, the current market value of the biotechnological industry is about \$50 billion (£32 billion), and it is estimated that by the year 2000 it will have revenues of more than \$125 billion and employ 500,000 people."

The significance of knowledge-based industries to the economy as a whole can be suggested by the rate at which knowledge is accumulating. Roughly 90% of all that we know in the fields of biology, chemistry, and physics has been discovered in the past 30 years. It is estimated that knowledge is currently doubling every 18 months and the pace is increasing.

This growth in knowledge-based industries and its effects on worldwide economies are associated with changing patterns in the labour market. Who works, what they work with, and where they work are all factors that have contributed to the steady decline in traditional modes of wealth."

*Keith Bradley, Director of Research,
Open University Business School.*

Now there's a stimulating thought to end on!

Achieving LIGHTSPEED!

Steve Bowie leaves Lightwave's basics far behind when he uses two products that propel him toward new frontiers of realism.

Three hundred thousand kilometres per second, the speed of light... a brisk pace to be sure. When travelling at such high velocity, you may have noticed that the scenery can become blurred and the controls of your craft can take on an unfriendly aspect!

At times, complicated software can produce a similar disorientation. While the Amiga built its reputation partly on the basis of user-friendliness, high-end applications can still be difficult to learn. Prominent among these would be 3D animation and modelling programs.

While programs such as Imagine, Real3D, Alladin 4D, and even the more accessible Lightwave, are very capable, the gradient of the learning curve often seems directly proportional to the program's power.

For those who want to move beyond playing with the menu options in Lightwave in particular, there's good news... help is at hand! There are now two products that have helped Lightwave users around the world to get 'up to speed'... Lightspeed, that is!

LIGHTSPEED - the Video Magazine

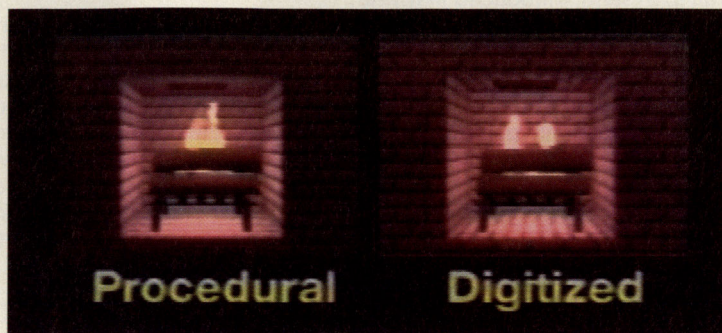
LIGHTSPEED Productions have produced something of a novelty for Lightwave users. 'LIGHTSPEED: the Video Magazine' is a collection

of tutorials, reviews of third party Lightwave 'plug-ins', and the occasional LW related news titbit, presented on VHS tape. You can follow along on your own monitor as you are guided by the professionals (and a few talented amateurs). Computer users are not generally renowned as readers of manuals (RTFM!), so it is really a benefit to 'see' how to tap into Lightwave's power.

Originally intended to be monthly, LIGHTSPEED has moved to a bi-monthly format. Apparently the change was necessitated by the desire to allow the tutors more time to complete their LIGHTSPEED material while keeping up with their own production demands. Representatives of LIGHTSPEED indicate they are very concerned that the quality and amount of material on each tape (usually 60-90 minutes) be kept high. A companion disk of object and scene files is available for a small extra charge.

F9 - the Key to Happiness

As the series has progressed, the content has, in my view, improved. Some of the presenters have very good native teaching skills, while others are getting better as time passes. Certain of the early tutorials seemed to be recitations of long lists of parameters needing



Useful examples are offered throughout.

entry. Little reason was given until the almighty F9 (Render) key was pressed. Still, one must remember these folks are animators doing their best to pass along their individual tricks. They generally do so quite well. I always look forward to receiving a LIGHTSPEED issue.

From Lego Block to Shadow Ship

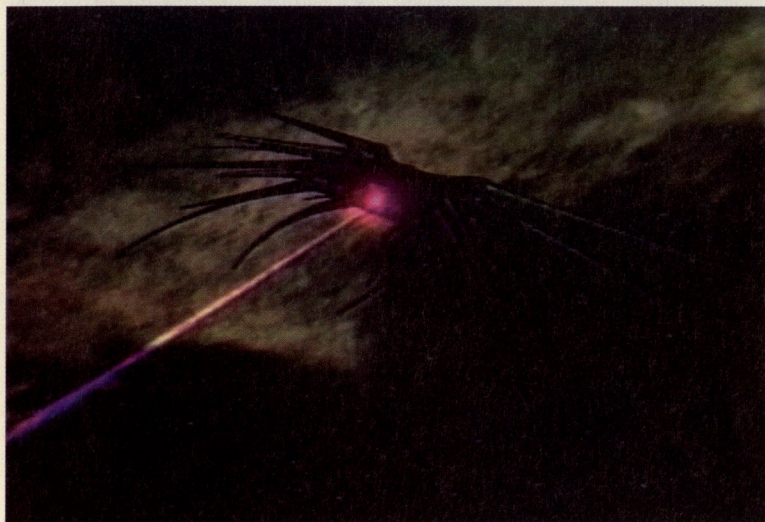
Video lessons have covered some wonderful and innovative techniques. Among others, Dean Scott (creator of all those marvellous B5 'clone' models available on your BBS) has shown us how to model the famous 'Shadow Ship' from Babylon5.

Dave Warner (moderator of the Internet's Lightwave Mailing List) demonstrates how easily flames created in LW can substitute for the real thing in an animation, as well

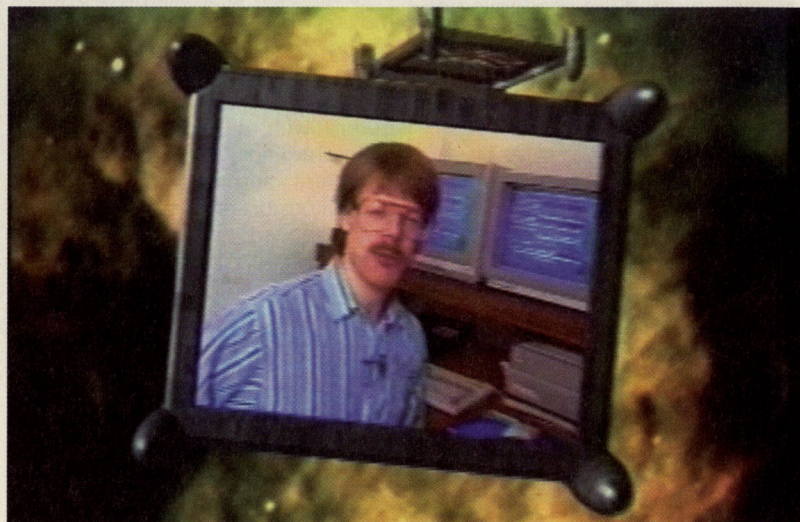
as how to create all of those cool electric plasma effects, lightning and sparks. Kyle Thatch (who represents NewTek online) conducted an elementary Modeller lesson to bring joy to LW toddlers - a Lego block!

Product reviews have included tools such as Impact (the real world physics 'emulator' for LW), World Construction Set, and PowerMacros (an extremely powerful set of Modeller ARexx macros.)

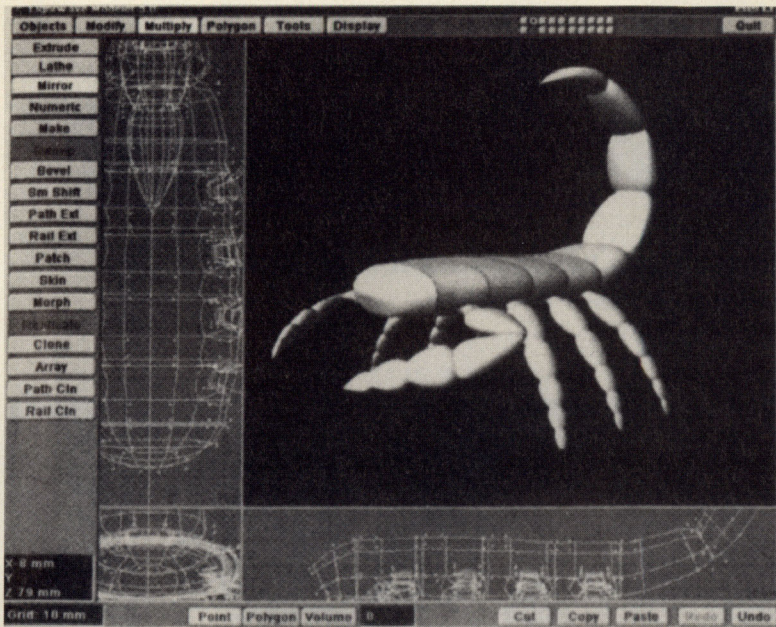
Taken together, the LIGHTSPEED 'columns' provide a tutorial resource of unusually high quality. A nice feature is, that while older editions retain their value, the series keeps pace with LW's advancing feature list and the growing experience of its power users. Doubtless, many of the concepts presented would be of interest to users of other 3D application software as well.



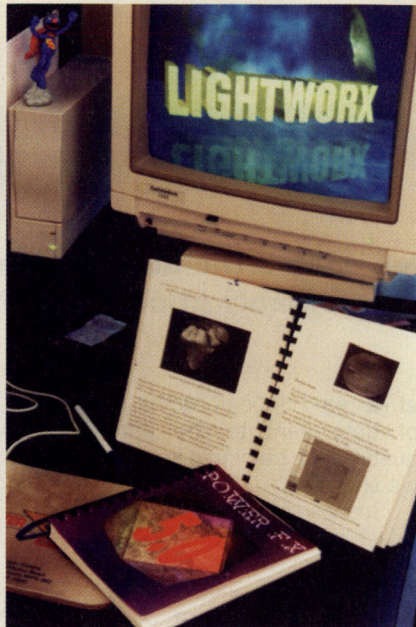
A 'clone model' of a 'Shadow Ship'.



Dean Scott teaches you from his refuge in hyperspace.



The 'FX Kit' book is well illustrated.



of them can be used in a practical way. For example, the terrific new ability to add multiple layers of surface textures is applied to mapping a couple of 'laser burns' across the fuselage of the spacecraft created in the previous volume.

One great new feature in the Lights Menu is the ability to use a light to project an image onto a surface. The Power Book tells us how to employ this to create 'cookies' (cutout shapes used in the real cinematic world to fake natural shadows). Changes in the use of Inverse Kinematics and Bones are also illustrated.

Among the most exciting features of LW5.0 are Metamotion, which somewhat simplifies character animation, MetaNURBS and, to a lesser degree, Metaballs (both the latter are intended to make organic modelling a much richer experience). Tutorials lead one capably through the new concepts, though sadly it must be stated that (as the Amiga version will lack support for the advanced OpenGL realtime preview features used in the PC version) the experience will not be as rewarding for Amiga-based Lightwavers. We can only hope that the Amiga version will not fall irretrievably far behind in an area of high-end graphics in which it once vigorously led the way.

First on the scene with 5.0 coverage, the PowerFX: 5.0 Addendum is a worthy follow up to its fine predecessor. My recommendation to 'Wavers'? Buy both, you'll never be sorry. **AUI**

The LIGHTSPEED Video Magazine is available for international subscription for US \$114 in VHS format (PAL version \$5 more). The FX Kit for Lightwave is \$34.95, and the POWER FX book is \$24.95.

All the products mentioned in this article can be ordered via the Internet now through the World Wide Web (<http://www.webcom.com/lightspd>), saving long distance phone calls and avoiding the time difference between countries too.)

Those of you without Net access can resort to the address below (LIGHTSPEED Productions is looking for a European distributor for their line, so if you are one, or can recommend one, do get in touch):

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It would be remiss not to add that, at the time of printing, LIGHTSPEED Issue #6 is rather overdue. Its appearance has been promised shortly. When it arrives, I'm sure it will have been worth the wait.

FX Kit for Lightwave

The FX Kit is not a box full of plastic model bits ready for assembly. Rather, Lightwave master Alan Chan has compiled an excellent textbook for us. In case you miss my point, let me be blunt. I love this book!

It is extremely well done, and along with your Lightwave manuals (you did buy your copy of Lightwave, didn't you?) can boost you from 'All Stop' to at least 'Warp Factor Two' in a very short time.

Good Enough for 'Voyager'

The eleven chapters in this 300+ page spiral bound book (so it lays flat on your desk) not only cover the basics, but introduce you to many of the more esoteric concepts familiar to the Lightwave 'cogniscenti'. 'Lightwave is well known in professional circles as a program with a terrific modeller and great rendering, but occasionally exhibiting awkward gaps in animation features. Tricks and workarounds often enable the power user to 'fake' most the effects found in programs costing many times more. Hey, if it's good enough for Star Trek Voyager, who's going to complain?

Chan begins with a few chapters covering Lightwave fundamentals (such as navigating within the Modeller and Layout sections of the program), but quickly moves onto his greatest strength - teach-

ing by example. First though, he takes us on a side trip - curiously, Chapter 4 is entitled 'Troubleshooting.' Here we are warned of more than 30 common pitfalls that await the unwary apprentice 'Waver'. As he puts it, "The time will eventually come when you are confronted by this problem. Diagnosing the solution becomes easier because you have already read about it, and half the solution is already floating in the back of your mind."

Surface!

Chapter 5 provides a great 32 page consideration of one of my favourite parts of 3D animation - surfacing (no, not the kind common in all those WW2 convoy movies). Parameters such as Diffusion, Reflectivity, Specularity, and others, are known in Lightwave as 'surface attributes', and combine to mimic nature (or unreality). Good surface textures are absolutely critical to creating 'believable' objects, and their creation is an art in itself.

The FX Kit is laced with tutorials - actually, it is mostly tutorials! Flipping pages of a book, waving flags, all are used to convey concepts you'll employ over and over as your skill grows. Where possible, each tutorial builds on its predecessor. We first add lakes, then a cloud covered sunset to the mountain-scape created in Chapter 7, 'Imitating Nature' (for those bored with mere battlestations.)

Space Cadet

For those NOT bored with battlestations, the Section entitled 'Space Effects' will take assist you to design and build your very own space fighter. You'll model it, paint

it, turn on the lights, even put a few dents in it while you learn to fly. Then, as a graduate Space Cadet, you'll learn how to fire the lasers and make your own planetary system (don't blow up the planets, if you please... they're hard to replace.)

Sections on Lighting, Bones, and Kinematics round out the tutorial information, and bring us to the 'piece de resistance,' Chapter 11, entitled 'Compositing and Photo-realism'. Here the mysteries of Foreground, Background and Alpha images unravel. With this knowledge tucked safely into your mind, anyone with a video digitizer (especially one that will do sequences) can begin their own 'Toy Story'.

What about 5.0?

The 'FX Kit' is a great book, especially for Lightwave 'newbies'. However, shortly after its release, NewTek sprang a surprise upgrade of Lightwave from 4.0 to 5.0 (note LW5.0 for Amiga has been announced but still not released at the time of writing). Not to be outdone, Alan Chan had been toiling away secretly and was ready to fire back his own salvo with a new volume, the Power FX:5.0 Addendum. Initially, the publishers had intended to provide an 80-90 page 'snap-in' addition to the original volume covering the added capabilities of the new version. By the time they'd covered all the new features adequately however, this was out of the question.

The POWER FX book does not cover the same ground over again, but is really supplementary material to the original FX Kit. Beginning with an overview of the new features, Chan illustrates how many

Low-priced Laser

Alan Lewis sees double the number of dots before his eyes as he assesses an affordably priced Rolls-Royce of laser printers.

Once considered expensive, a decent 600dpi (dots per inch) laser printer can now be found for less than £450, and it can even possess a Hewlett-Packard badge on the front. We are not talking GDI printers here - printers that only work with Windows based PCs - but a real, honest to goodness, laser with its own processor and raster engine.

Unless you have lived in a cave for the last 10 years, then you know that the Hewlett-Packard Laserjet series is considered (rightly or wrongly) as the Rolls-Royce of laser printing. With a price tag to match, usually.

However, with the entry of the PC into the home, the cost of lasers has dropped fast. This is partly due to cut-throat price competition and the fact that the slower 4ppm (pages per minute) mechanisms are now considered outmoded.

The Hewlett Packard HP5L is typical of the laser printer today targeted at the home user. It is rated as a 600dpi, 4ppm printer, with a 100 capacity paper tray and 26 built-in scaleable typefaces. Trendily designed, with a curving front and sides, it measures 330mm x 310mm x 230mm and weighs just 7kg.

This printer's compact footprint comes courtesy of the top loading paper bin; lasers normally use a front feed tray which adds to the overall length.

Energy Compliant

Once unpacked it reveals its first surprise. It doesn't have an on/off switch; LCD menu screen; form feed or menu buttons. Three LED's and one button represent the total external controls. The printer is EPA Energy Compliant, and will turn itself off after 5 minutes of inactivity - although even in this state it will store any downloaded fonts!

As standard, it comes with 1Mb RAM - in theory, this is more than enough for a page of text, but not enough for a page of graphics, even at 300dpi. You would be forgiven for thinking that the 5L needs more memory before being able to print

at its rated 600dpi, as the amount of data sent to the printer is quadrupled, but you'd be wrong, as we shall see.

Supplied with the printer are three driver disks - all for the PC - and a thin manual which tells you all you need to know including how to exert some measure of control over the printer from the one button on the front panel, and what the various combinations of lights mean. The section on troubleshooting is one of the most comprehensive and clearly written I have ever seen. Not supplied is a printer cable, so you will have to buy one yourself.

In common with all HP lasers since the model 3, the 5L comes with Resolution Enhancement Technology to improve the visible quality of the image. This means that the laser performs something similar to anti-aliasing by adding smaller dots in between the larger dots that are present in the original image to give a smoother rendition.

The laser performs something similar to anti-aliasing by adding smaller dots in between the larger dots that are present in the original image.

The 5L can handle a wide range of paper sizes - from roughly A6 to US Legal - and can print on envelopes, adhesive labels, and transparencies too.

A nice touch is having two input bins on the top. One is for normal use, the other is the Single Sheet Input Slot which is for manual feeding. This allows you to use a paper size (or media type) that is different to that in the autoloader without having to unload. The printer will use this media before that in the input bin. This is useful when the first page of a print job is different to the rest, for example, using letterhead paper for the first page, and normal paper for the remainder.



It prints like a dream.

The second surprise is that the 5L is able to print a whole page of 600dpi graphics, even with only the basic 1Mb of RAM. This is due to Memory Enhancement Technology. Stripped of the jargon, it means the HP is intelligent enough to compress the image in memory. If the printer detects that it is running out of RAM, then it has another trick up its sleeve. It will reduce the image resolution, thus cutting down on the amount of data. In practice, this means that most images - even 24-bit A4-sized pictures, can be printed out onto a whole page in one go.

Nothing is perfect though. MET is fine for printing pictures, but not for downloading fonts. If you plan to do this then you had better start thinking of adding memory. And this is a sore point. In common with most other printers, it uses proprietary memory cards which don't come cheap. 4Mb will set you back over £200 - even with the recent crash in memory prices.

That aside, how does the printer perform? In a phrase - like a dream! Output is wonderful. Clear, crisp images, with very fine tones. Text is marvellous, noticeably better than that from 300dpi lasers.

As the supplied drivers are for DOS/Windows/Win95, you will need a decent printer driver on the Amiga. The choice is between Studio

or TurboPrint, so add another forty-odd quid if you don't already possess one of these fine programs. PageStream comes with a driver for the HPLaserjet 4, which is 600dpi and PCL5 capable, and it works very well. Print times will vary according to what CPU you have, how much memory is fitted (and how much is in use) and which model Amiga you have.

Would I buy one? You bet. Guess what? This is one review item that isn't going back. I bought it. That's how good I think it is. **AUI**

Note

Regardless of from whom you buy, ensure it is a genuine UK market model. There are reports of some traders selling grey imports at very low prices. The warranty on these models will probably not be honoured by HP in case of problems.

INFO

Hewlett Packard HP5L

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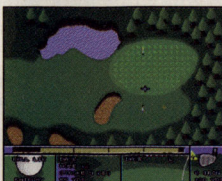
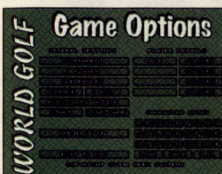
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Stereo SyncMaster

Samsung have launched a new 15" multi-standard monitor with a multi-media capability. David Ward looks at the screen and listens in.

Like something out of surrealist painting, monitors have been descending on **AUI** Towers in showers these past few months. The latest in this interesting flood, Samsung's new 15M monitor, arrived here to general approval. This new model has considerable similarities with the recently reviewed 15GLE, which it is understandably likely to replace in the affections of the monitor buying public. The styling is very alike, the difference being that the front of this later monitor is larger to accommodate the loudspeaker mounted on each side of the picture tube, and five new buttons have been added just above the control flap.

Improvements to the monitor's electronics are the invisible differences. In particular the resolution and maximum horizontal scanning rate have been upped, and a choice of colour temperatures added.

It's a pity the horizontal scan rate wasn't lowered slightly too, for this monitor will not operate in DbIPAL mode at 29.2kHz. The slowest speed I could get it to run at was standard VGA at 31.4kHz which means that the Samsung may largely be used for DTP etc., though with a hardware flicker-fixer/scan doubler it can be used in a wider variety of applications.

Connections

The monitor is connected to the Amiga via a 15-pin to 15-pin cable, the pin outs detailed in the comprehensive manual that comes with the monitor. A separate 15 to 23 pin adaptor (not supplied) completes the connection. For sound you will need a pair of stereo patch leads of the phono to phono type. Samsung supply twin phono to stereo mini-jack and stereo mini-jack to stereo mini-jack for PC sound cards, the latter cable is designed to enable the user to take advantage of the monitor's built-in microphone.

The sound output from the Amiga can be connected to the phono inputs on the back of the monitor using the patch leads. Next



Samsung's 15M: Not only does it look good, it sounds good too.

to these are the mini-jack connectors for the microphone output and alternative stereo input. On the right hand side of the monitor are mini-jack sockets for headphones or an external microphone.

Behind the front panel are the buttons that control picture shape and size, and colour temperature via on-screen displays. Another button handles degaussing and there are rotary controls for picture brightness and contrast. Above these are the five buttons that control the sound.

From the left, the first two switch the audio inputs and outputs on or off and their status is indicated by a yellow LED above each. The next button controls volume, balance, and tone via an on-screen display controlled by the last two buttons. These are separated from the first three by a tiny aperture behind which the microphone is situated.

Further to the right is a large square on/off switch with a pale green (I'd say yellow) LED pilot

lamp. This indicator changes colour according to the monitor's situation - whether it has a video signal applied to it or not.

AV Quality

The Samsung 15M cannot be faulted for its picture quality, the clarity and sharpness of the pictures on the screen are likely to set new standards for monitors of this type. A truly vivid image is delivered by the FST 0.28mm dot pitch anti-glare coated screen in whatever mode the Amiga can provide that the monitor accepts. The sound too, is good. It is clear and warm, with a very pleasant tonal balance.

Conclusion

It's no good us users calling for monitor manufacturers to build display devices that can do TV type screens. They just "ain't gonna do it". The monitor manufacturers' mar-

ket for the higher scan rate monitors is the PC and the smaller number of Amiga monitors they anticipate selling may not, they believe, warrant the development costs.

The problem has always been that the Amiga was designed to be run through a TV set, not the best idea for quality visuals. Those fewer kilohertz make all the difference and monitors such as this 15M, no matter their quality, are at a disadvantage as they cannot sync down to the Amiga's more normal TV scan rates.

What we need to ensure is that the next Amiga has a built-in hardware scan doubler such as the one that Commodore saw fit to install in the A3000. Unfortunately, the accountants made sure it wasn't fitted to the next generation of AGA machines, so a compromise of a software device was used instead.

This idea works most of the time, but software that does not understand this concept - games, demos, and AMOS - can make life hell when your beautiful high-res flicker free screen turns into a scrolling mush.

Come on VisCorp, it's time to up the Amiga's specs. In the meantime we have to be thankful that companies such as Samsung go on providing high quality, very usable, and reasonably-priced products, as this 15M monitor undoubtedly is. **AUI**

INFO

Samsung 15M

Specifications

Resolution: 1024x1280
Bandwidth: 110MHz
Horz. Sync.: 30 - 65 kHz
Vert. Sync.: 50 - 120 Hz
Price: £291 + VAT

Rating: 92%

CONTACT

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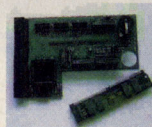


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WORKS OF ART

Decent clipart is rare and often expensive.

David Ward draws on his artistic experience to give you an impression of Artworks' latest.

Clipart can make all the difference to a document, often turning a bland offering into something more attractive. Even a simple graphic can do this, catching the eye and conveying more than many words (perhaps a 1000?) can do.

Last Summer my local newsagent, who operates out of a kiosk in a station, was constantly asked by customers whether he sold cold drinks. There was a display of bottles and cans, but the refrigerator was out of sight, and answering this question was driving him nuts. I solved his problem with an image of a chilled cola can and the line "Cold Drinks Sold Here".

The image of a cola can came from a collection of scalable images that were supplied with the DTP package I use. So luck was in, but for other images I often have to look elsewhere.

It is not that those I already have are not good enough, they are and often of very high quality. However, they are from an American company and are therefore of a Stateside slant. So there are plenty of pictures of Thanksgiving, candy canes, cheerleaders, and blueberry pies!

When you start looking for alternative sources - usually CD-ROM collections, you often end up with drawings that look dated, and possibly American too. This is mainly because they are scanned images from 1960's art books, particularly the Letraset (see box) catalogues of that time. Getting hold of modern European clipart used to be difficult, but not now.

Artworks' Weddings

For some time a company in the north of England has been providing the desktop Amiga publisher with a broad range of high quality clipart in a variety of forms. Artworks has now released two further separate collections to add to this - Weddings and Trees.

Weddings is a five disk set of full-colour EPS (Encapsulated Post

Script) drawings ideal for loading into a top-of-the-range DTP package or one of the latest leading Amiga word-processors. A booklet is provided that shows you the hundred plus images (in monochrome unfortunately), and it gives you practical tips on how make the best use of the clipart in your documents.

As EPS files, they can be sized to your requirements without any loss of quality, so you can do poster sized prints without fear of the 'jaggies', and miniature images that retain fine details - providing your printer has the resolution.

From our example screenshot you will see that I have chosen Wordworth5 to show off the types of images found in the Weddings' set, or you could use Final Writer. These are professionally drawn and original clips. You should have seen some of the trash I've encountered over the years on so-called 'professional' clipart CD-ROMs. Artworks' offerings are considerably better.

This set has images of the church; the party, not the bride and groom; motifs, such as horseshoes and bells; objects, which covers bride and groom surprisingly; strips, both horizontal and vertical; and frames.

The frames can be used to create invitations and place cards, with extra decoration provided by the motifs or objects. The horizontal strips are ideal for menu cards or orders of service, dividing text into



In this screenshot of Wordworth I have loaded in a selection of images from the various disks to give you an idea of default sizes and shapes.

sections with a fancy graphic instead of plain lines. Vertical strips can add colour to the edges of documents.

This is a comprehensive set for the production of wedding stationery, but not for video work. And being in colour, it adds plenty more to creations than the regular monochrome clipart normally supplied via PD libraries.

As well as EPS, Artworks can supply these images in ProDraw clip format, for ProPage and Page Setter; CGM format, which is the

preferred type for Wordworth (3.0 or above - not SE); and Windows Metafile (WMF) for PC users.

Artworks' Trees

Trees is entirely different. This is a single disk of images that can be used in documents, or as brushes in Deluxe Paint, for example. Artworks have licenced Roberta Smith DTP to distribute their range of monochrome IFF bitmap clipart.

The disk comes in a CD jewel case with a special insert for the



Wordworth only gives you a representation of what the graphic will look like. When printed, especially in colour, the full benefit of the EPS file can be seen.



A frame and motif have been used to create a typical invitation. The fine detail is more apparent in the final print than in Wordworth's preview.

LETRASET

Founded in 1959, the Letraset company produced a type of rub-down dry transfer that was used extensively in the late 60s and through to the early 80s by graphic artists, draughtsmen, and designers. It is still used today, but computer graphics have considerably reduced its importance.

A sheet of Letraset consisted of a plastic backing with lines of lettering, like 'AAAAaaaaBBBBbbbb' and so on, printed on the underside. There were dozens of typefaces, sizes, and styles to choose from, and in several colours too. By placing the sheet onto a surface and rubbing the top side with a biro or stylus, the lettering would be transferred from the sheet to that surface. Special alignment marks ensured individual letters were correctly (proportionally) spaced.



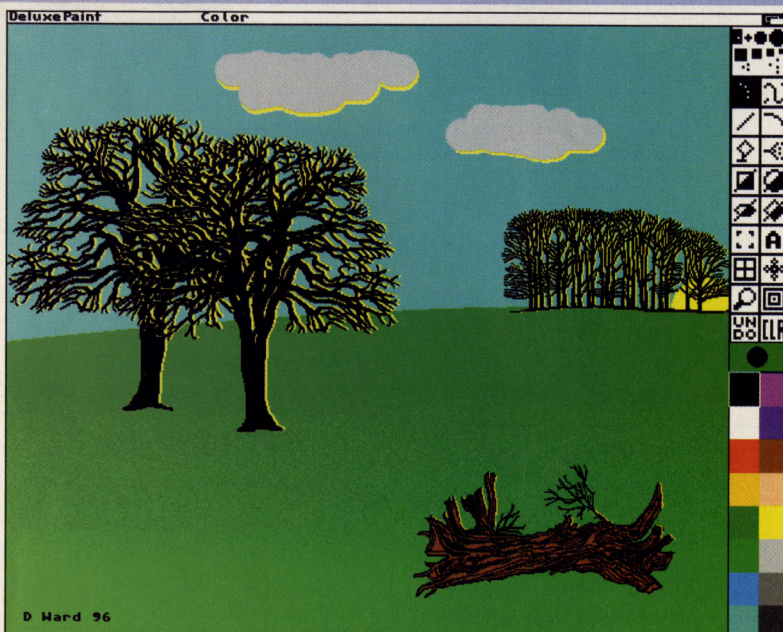
Letraset was the designer's saviour when it came to neat text and graphics. The computer and the concept of desktop publishing changed all that.

Using this often laborious method headlines, titles, and lengths of text could be built up on posters, newsletters, and other items.

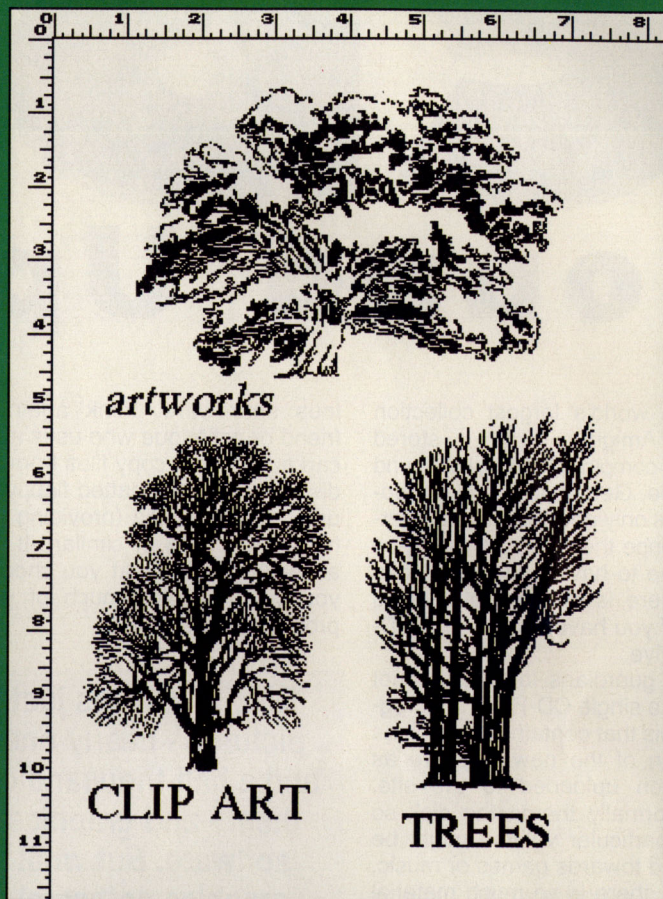
Letraset also sold a range of signs and symbols for engineers, plus "art sheets" of general scenes, figures and, of course, trees and buildings. These were used by designers to create advertising material, or by artists for 'impressions' that architects wanted to convey to prospective buyers.

There was also Letracolor and Letrafilm, a range of sheets that had solid colour, and Letratone and Instantex. These used patterns or different grades of shading for filling in backgrounds or even creating complex pictures.

These days Letraset, along with Dymo - the embossed tape maker, is part of the Swedish group Esselte. They now produce artists' materials and an extensive range of fonts and signs & symbols on disk or CD-ROM for Mac and PC users. Transfers are a minor part of their business.



Used as brushes in Deluxe Paint, you can quickly create pictures in the style of Rolf Harris!



These images, loaded into PageSetter3, are 'actual' size. A large tree would therefore take up half an A4 page.

floppy, so it looks attractive on the shelf. The case also holds a booklet which has the 130 plus illustrations printed within it for quick reference. Unfortunately you have to be an amateur arborist to recognise the tree outlines (or at least have a copy of 'Jane's Trees' to hand!), for none is described. Instead each page is labelled from A to O, and each picture numbered from 01 upwards.

All the images are in hi-res (640x512) format. This should be fine for most uses, especially video work where interlace is normally required. Although trying to think up a video-titling need for trees has me stumped (aah!) at the moment, but I have created an image for you in DPaint to give you an idea of what is possible.

Other disks in the series include for 'Churches, Cottages & Castles', 'Weddings & Family Occasions', 'Pets', and 'Christmas'. There are sixteen titles in total, so call Roberta Smith DTP in you want more details.

Conclusion

Artworks have gained themselves a decent reputation when it

comes to clipart, and this latest selection will only bolster that image. Although not cheap when compared to the shovelware CD-ROM compilations, at least you know that you'll be getting modern European-style clipart instead of clichéd 60's Americanisms. **AUI**

INFO

Combined Rating: 88%

Weddings

Price: £19.95

Artworks

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Wootton

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CD Round Up

The world's largest collection of Amiga software is stored on computer hard disks around the globe. Getting at this giant repository is only possible via the Internet - hence the name "Aminet", so you have to have a modem. However, there is an alternative, and that is if you have access to a CD-ROM drive.

The guardians of the Aminet release a single CD-ROM on a regular basis that contains as much as they can of the new software as has been uploaded to the site. They normally theme the disk so that a particular volume might be weighted towards games or music.

Alas, there is so much material on Aminet that even the 650 megabytes of a CD-ROM cannot do it justice. Therefore the Aminet trustees also release a multi-disc set discs every few months that contains as much of the new software as possible, plus the essential regular utilities. The latest of these recently compiled discs, the Aminet Set 3, is currently in the shops.

Before you complain that you have neither a modem or a CD-ROM drive, and that you cannot take advantage of all this marvel-

lous shareware, think again. A friend or colleague who uses a PC can quite easily copy files from the disc to a 720k formatted floppy for use on your Amiga (providing you have CrossDOS or similar). If you are selective in what you choose, you could resolve much of your problem in this way.

Disc b, 'Gfx', is just pictures - nearly one and a half thousand of them - and graphics software. But what graphics software!

Goodies

Set 3 contains four discs, each themed in contents. Disc a, although labelled 'Tools', is very much like a standard Aminet CD-ROM. Overall it contains mainly utilities, documentation, text editing software, disk tools, and hardware related items.

Indices to this set and all the discs so far produced, that's Sets 1 and 2 and the individual discs up to the recent volume 12 are on here, and the other discs too. This seems a pointless waste of nearly 6Mb of space on each of the remaining 3 discs of the set. Ditto for the 4.7Mb tool directory.

Disc b, 'Gfx', is just pictures - nearly one and a half thousand of them - and graphics software. But what graphics software! Apart from the usual shareware offerings, Aminet have done a deal to get Imagine 4.0 and XiPaint 3.2 onto this set complete with documentation, so you can play around with 3D rendering then doodle in 24-bit.

The 'Fun' disc - platter c - , is loaded with demos plus shareware and a few commercial (nothing spectacular) games. Hidden away in here is Aminet's miscellaneous directory with it contents of sci-

Aminet Set 3

Once Aminet CDs were considered huge enough to come alone, now they arrive in sets of four. David Ward though finds that sometimes quantity isn't all it seems to be.



ence, educational, mathematical, and related software.

D, the final disc, is called 'Mods' and it has over 2000 music modules along with a decent selection of music software including the definitive tracker creation program OctaMED v5.04. Other directories on this CD are dev, for developers; biz, business type software such as databases; and comms, which is filled with communication software and support utilities for e-mail, fidonet, Web, and bulletin board services.

With so many files uploaded everyday, Aminet's free disc to every uploader has had to be suspended for logistical reasons.

Within the jewel case you will find special offer coupons if you wish to upgrade your Imagine, XiPaint, or OctaMED programs to the latest versions.

Not So Goodies

I am disappointed by the duplication of the indices, the tools directory, and the info directories on each disc. Also that Imagine would not run on either of my machines, and that XiPaint requires a 24-bit card of some description so

rendering (good choice of word) it useless for A1200 owners.

My ideal set would dispense with the free gifts and hold only all the serious utilities found in util, dev, comm, gfx, and so on, while pix, mods, and game could be issued on separate discs for those who want them.

The recently released "Mods Anthology" is an excellent collection of mod files, many of which have already appeared on Aminet. Judging by the regular upload listings to the Aminet that we receive here at AUI, the majority of the files held on the repository's hard discs are now mods. And with so many files uploaded everyday, Aminet's free disc to every uploader has had to be suspended for logistical reasons.

Conclusion

I would still recommend the Aminet set for those readers just starting out, but for the regular collector of Aminet discs, for the present, stick to the individual issues. AUI

Here are the amounts (in uncompressed megabytes) of software in each category:

Biz (Business)	88Mb
Comm(unications)	131Mb
Demo(s)	394Mb
Dev(eloper)	91Mb
Disk	12Mb
Docs	79Mb
Game(s)	563Mb
Gfx	208Mb
Hard(ware)	7Mb
Misc(ellaneous)	64Mb
Mods	685Mb
Mus(ic software)	28Mb
Pix	756Mb
Text	408Mb
Utils	95Mb
Total	3597Mb

RATINGS

Rating 88%

INFO

Price: £39.95
Supplier: Schatzruhe
Format: Any

Amiga Developer CD

A sign of the times... Simon Goodwin test drives a low price CD whose contents, just a few years back, would have cost professional Amiga developers hundreds of pounds.

At last Amiga Technologies has released a CD for Amiga developers. This was proposed at the Heathrow buy-out conference last Spring, when Jolyon Ralph of Almathera volunteered to carry out the work for free, but bizarrely AT chose to pay German developer Ralph Babel to do the job.

The result, one year down the line, is a CD with around 50Mb of useful information in a web of linked files, mostly readable through AmigaGuide. It will take most Amiga enthusiasts weeks, if not months, to wade through the it all.

In the absence of a developer support programme, AT have made this a normal commercial CD release, rather than a developer-only junket - so it's available at the usual CD price to anyone interested - and if you program your Amiga, you certainly should be interested.

Four megabytes of the disc are occupied by the full CD32 developer kit, which includes BuildCD (for Philips CD writer) and official CDXL, MPEG, and SCSI CD support routines. The Native Developer Kit v40 (Workbench 3.1) fills a further eight megabytes. This was a five disk set supplied to developers at the last Commodore developer conference. It includes dozens of small software tools, includes, autodocs, tutorials, and lots of examples.

Networking

Version 2.0 of the Envoy and INet 225 developer kits head up the 'Contributions' directory. Envoy is Commodore's own networking system, while INet 225 is an Amiga conversion of the Unix TCP/IP package. Envoy is a proprietary email and file sharing system, later supplanted by AS225 which can talk to real Internet applications.

The latest version of the programmer's protection and bug-tracing tool Enforcer is on the CD but, alas, is still not compatible with the 68060. It needs a 68040 or full 68030, with memory management (not the EC version). The author, Mike Sinz, has since been lent a 68060 board and told me he plans to adapt Enforcer for it as soon as he can get around to it. He's still considering whether to release the source.

In the same directory, Kiskometer, by Angela 'Meeting Pearls' Schmidt, is a tool to trap and report system patches. Self-styled guru Ralph Babel contributes WBpath, ActionFSSM, and TrackDisk 64. It's unclear what these are, as the documentation is only supplied in Post Script format. I suspect they're only here because Babel compiled the CD.

The DevInfo directory contains all new files from AT, but it's a disappointment as it runs to a mere 60k of text - mostly threats and some rather doctrinaire 'rules' for programmers - they even try to tell us how to use Tabs in source code. Chill out, lads! Internationalisation files contain helpful hints and vocabulary for people converting software and documentation between English and German.

If the ROM Kernel Manuals are the Bible for Amiga coders, Amiga Mail is the Apocrypha. Styled like the RKMs, packed with useful information and programs, AmigaMail was Commodore's continuous developer documentation update service. There are almost ten megabytes of AmigaMail on this CD; including camera-ready versions in PageStream and Postscript format as well as AmigaGuide documents, source, and object programs. The same directory also

includes 3Mb of programmers' Includes and Autodocs, all in linked AmigaGuides for easy reference, and a useful file of Zorro Auto Config Hardware details.

Out of Date

The information covers ten years of the Amiga's development. Early AmigaMails concern the step up to Amiga O/S 1.2, and are seriously out of date now, describing the A500 and A2000 as 'the new machines!' Still, you get a feel for how we got this far...

If the ROM Kernel Manuals are the Bible for Amiga coders, AmigaMail is the Apocrypha.

The contact addresses and numbers in the text are all obsolete too, apart perhaps from some for Amiga Technologies/Escom in the root.

The biggest directory is labelled 'Extras' and contains almost 20Mb of example C source code from the ROM Kernel manuals and Volume 2 of AmigaMail. There is also invaluable code exploring ARexx, ASL, IFF, MIDI, SCSI, ASL and other Amiga acronyms, mostly drawn from developer conferences.

The vast majority of the example code is in C, usually (but not always) for SAS/Lattice C. Manx C is also supported in earlier code, and DICE sometimes in later stuff. New SMAKE files simplify re-com-

pling the example programs.

With the exception of the ROM Kernel Manuals and developer Kickstart images, this is a complete and definitive collection of Amiga programming files and tools. Just a couple of years ago commercial developers paid hundreds of pounds to get access to this information.

If you already own a comprehensive, Commodore-vintage, developer library, you may be disappointed - there's very little new material originated by Amiga Technologies on this CD. Ninety-nine per cent of the files date back to 1994 or earlier. The most significant exception is the new Installer (version 43), also available on Amine.

Existing Amiga developers should already have the v40 Native Developer Kit, and the value of the package will depend on how much other stuff they're missing. The AmigaMail articles, BuildCD, IFF and other examples were only available to developers by request, so few will already have all the material on the CD.

Disorder

There are snags; the content is disorganised and lacks an overview. Many of the files come in old and new(er) versions and it's hard to be sure you've got the latest without exhaustively searching the lot. But less would have taken longer.

The ROM Kernel manuals are not included, although you do get all the programs from the third edition, with corrections. Apparently negotiations are underway to allow the books to be distributed, but the problem is that the rights are partly owned by Addison Wesley, the US publishers, as well as Commodore/AT/Escom/VisCorp.

In any case, they're almost five years out of date, and need updates to cover AGA and Datatypes - at least - before re-release. Nonetheless, here's a mountain of fascinating reading for anyone with a technical interest in the Amiga. AT deserves praise for collecting it on one CD and making it readily available not just to professional developers but also to anyone with such a demanding hobby. **AUI**



RATINGS

Rating 85%

INFO

Price: £14.95
Supplier: Schatzruhe
Format: Amiga

Gateway Volume 2

Simon Goodwin tests an up-market operating system that can replace the Amiga O/S if your machine is powerful enough.

Gateway 2 contains the current version of NetBSD, the best version of the Unix Operating System for Amiga systems. The 'Net' in the name refers to the Internet, which brought the development team together, and the 'BSD' refers to the University of Berkeley at San Diego, California, where pioneering work on Unix was done.

Unix is the dominant multi-tasking operating system on workstations. Developed by a team at Bell Laboratories in the 1970s, it drew on the British Tripos and BCPL developments which influenced Amiga O/S, and introduced the C programming language to the world. Unix became the main non-proprietary minicomputer operating system, much used in education, and migrated to workstations with the advent of 32-bit micros.

Most versions of Unix are derived from the freely-distributable BSD efforts, including the standard Silicon Graphics offering and SUN/OS, the original operating system shipped with SUN workstations. There is an old version of BSD specially for Intel systems, known as BSD386, but NetBSD was designed from the start to be portable between systems.

The current version, NetBSD 1.1, runs on many platforms, including Apple Mac, Atari TT and Falcon, IBM clones, HP, Sun and DEC workstations. The binary format matches that of Sun 3 workstations; compiled programs are compatible between all the versions of NetBSD for Motorola processors, so you can move programs between the Amiga, Mac, Atari and Sun 3 without re-compiling them.

Virtually all Unix is written in the C programming language, which makes it easy to customise and relatively portable, once the compiler is adapted to generate code for a new platform. Most programs are distributed in source form, with a script to re-compile them on any Unix system. There are lots of web pages and news groups devoted to Unix and NetBSD developments. I had no trouble downloading and compiling the XV utility to grab the screen image which accompanies this review, even though it was not specifically a NetBSD version.

Unix is essentially one vast toolkit and the NetBSD release majors on components, rather than full applications; hundreds of Unix packages are freely available on the Web or other PD CDs. Some of these are world-class, especially for graphics, emulation and text processing.

You do get the excellent Gnu C compiler - which works rather better in its native Unix environment than under Amiga O/S - plus the full version of Emacs and the complete X windowing system, including Xedit, TCP and the XMosaic web browser.

X is the Unix equivalent of Amiga Intuition, and supplants the ugly but powerful Unix command line with a window, icon, mouse, pointer interface. The current NetBSD X11R6 display is monochrome on standard ECS and AGA screens; you need Zorro graphics for full colour

displays. NetBSD supports Picasso, GVP Spectrum, Retina and Cybervision 64, among others.

NetBSD, like other Unix systems, needs a computer with a memory management unit, such as an A3000, A4000/040, or A1200 expanded with a full 68030 or 68040, rather than an EC version, but not a stock A500/600/1200 or A4000/030. Most applications expect a floating point unit, which rules out the 68LC040 in some A4000s. 68060 processors upset release 1.1 but should be supported in 1.2.

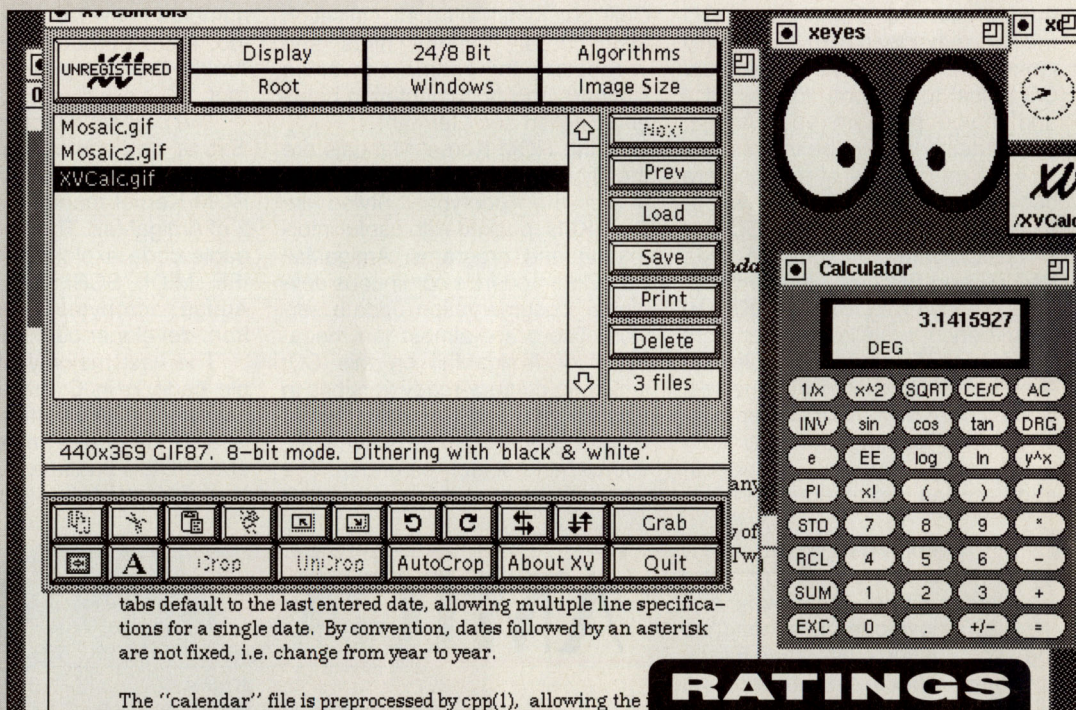
You need at least 4Mb of fast memory to run NetBSD - 8Mb to run X window applications comfortably - and around 120Mb of free hard disk space. Some of this becomes 'virtual memory', used to store information from RAM that has not recently been used. You end up with a system that appears to have much more RAM than is physically present, although it gets slow as data and programs are 'swapped' between disk and RAM.

directly from the Gateway 2 CD.

Installation is complicated as it involves more than 50Mb of files. First you must use the 'Expert options' in HDToolbox to set up two NetBSD partitions. A special handler, on the CD, allows Amiga programs to read those. NetBSD can read Amiga partitions too, but you cannot run both operating systems at the same time; NetBSD replaces Amiga O/S.

Conclusion

Gateway 2 is an usually good PD Amiga CD, not least because all of the software on it works! The documentation is terse so you need some Unix experience to get it working, but it's worth it if you have the level of high-end Amiga capable of running Unix. NetBSD is unlikely to supplant Amiga O/S for day-to-day working, but it's there when you want it, reliable and priced as only PD and Network enthusiasts know how. **AUI**



RATINGS

Rating 96%

INFO

Price: £TBA
Supplier: Schatzruhe
Format: Amiga

CONTACTS

Stefan Ossowski's Schatzruhe
Veronika Str. 33
D-45131 Essen
Germany
Tel. 49 201 788778

OctaMED Sound Studio

Good news for all musically-oriented Amiga owners as Teijo Kinnunen and RBF Software's latest masterpiece finally arrives. Paul Overaa has been putting the package through its paces.

Everyone knows that with the demise of Blue Ribbon and so on, Amiga musicians have had a pretty disastrous six months - but with the appearance of this new Sound Studio package things do at last look certain to brighten up in a big way. The new offering does have its roots in previous OctaMED versions, but the Sound Studio is far more than just a few improvements coupled to a new name - there's clearly been an awful lot of work put into the package and it shows from the minute you start using it.

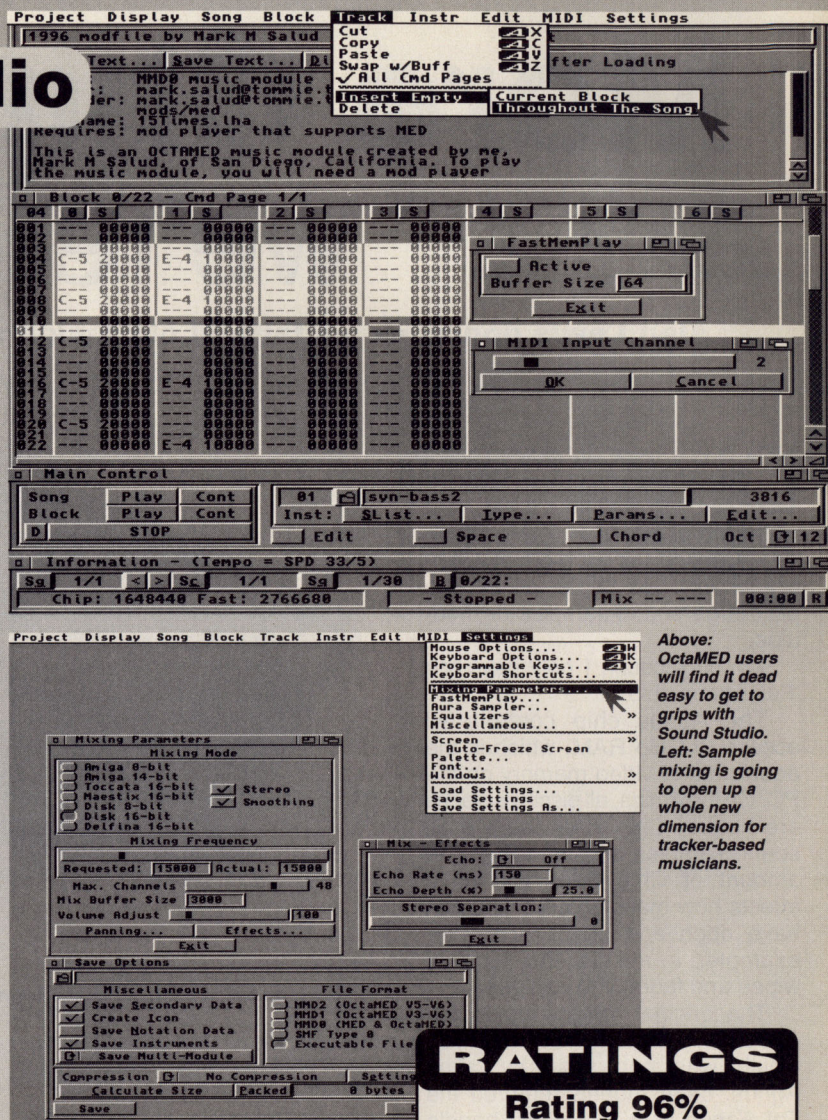
Perhaps the most exciting feature of the new package is its digital mixing facilities. These allow up to 64 independent audio channels to be used - even when modules are played back using the Amiga's internal sounds. The early OctaMED sound routines were tightly tied to the audio hardware arrangements used by the Amiga. The new scheme is a lot more flexible and, particularly importantly, is totally hardware-independent. With the Sound Studio it's as easy to send your sound data to a sound card or a disk file as it is to send it to the Amiga's internal sound chips. The digital arrangements have led to other benefits as well with effects like echo and cross echo now becoming available.

The disk based output opens up an area that most Amiga users may

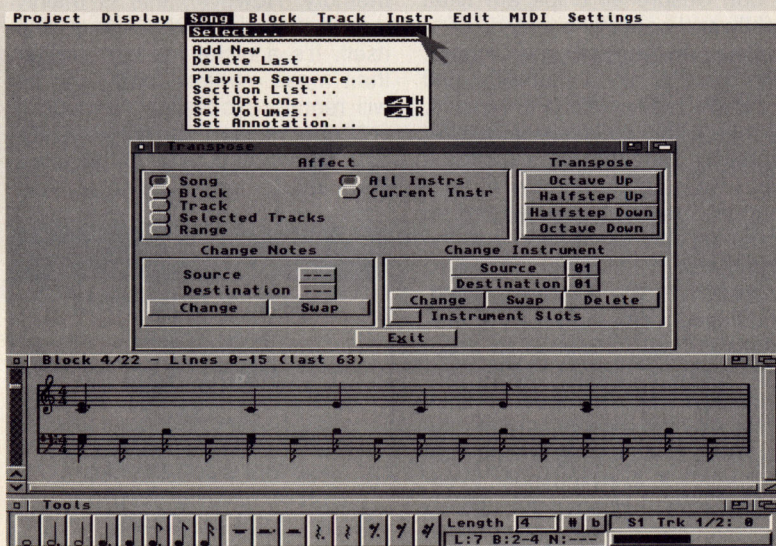
not have experimented with before. You could even store a complete song module on disk as a digitized sample (in either 8 and 16-bit form) if you wanted. Now you wouldn't do this with a complete song (there wouldn't really be any point) but this option does make it possible to create multiple-sample drum track, bass riffs, mixed instrument chords, and so on, very easily. Store a few bars on disk as a combined digital sample, and you've got yourself a loopable sample that you can then re-use in some other song module. A special "Smoothing" switch is also available now and, when digitally recording to disk, this can improve overall audio quality by removing unwanted frequencies.

There's More

The notation editor that originally appeared in version 5 of OctaMED (but which didn't appear in OctaMED v6) is now back again. As before the aim has not been to provide comprehensive and professional score entry (which couldn't really be done in a tracker-style program) just the basic facilities. Other features include sample loading into Fast RAM, a new window for search-and-replace operations on notes and instrument numbers, and the fact that Sound Studio can also load many modules created by the ScreamTracker



Above: OctaMED users will find it dead easy to get to grips with Sound Studio. Left: Sample mixing is going to open up a whole new dimension for tracker-based musicians.



And now again you can see what you're playing as well!

and FastTracker PC tracker programs. On the PC-related front there are also signed/unsigned byte swapping style raw sample conversion options (which are needed when using samples taken on PC machines). The ARexx options seem to have grown as well (although I've not had time to experiment much with these yet). There are many smaller improvements to be found in the Sound Studio as well including a song annotation window allows you to attach copyright notices, author name, or any other text notes to your compositions.

Conclusion

The Sound Studio is simply the best music tracker that has ever appeared, or is ever likely to appear, on the Amiga. It must be said that the exact performance you'll get with this new offering will depend on the type of Amiga you have, and whether you have an accelerator card and so on, BUT... there's no doubt that even on a standard A1200 the Sound Studio package will catch ears and turn heads! **AUI**

RATINGS

Rating 96%

INFO

Price: There are some rather complex discounting arrangements which give special deals for existing OctaMED users, MUG (MED User Group) members, and so on. Variations in price for UK, EC and rest of world purchasers, plus that the Sound Studio price varies depending on whether you want the floppy or CD versions. Basic UK details are as follows:

Floppy disk version

(price includes printed manual and 1 year's MUG membership)
New Users £70
Registered OctaMED v6 users £35

CD Version

(On-disc AmigaGuide manual)
New Users £35
Registered OctaMED v6 Users £25

All prices include post and packing.

Contact:

RBF Software
169 Dale Valley Road,
Southampton SO16 6QX
Tel/Fax 01703 785680

More Chips please, we're British

Alan Lewis upgrades his faithful old Amiga with Eyetech's latest RAM expansion board.

Do you have an old Amiga? I do. Mine has a Picasso II card, an '030 accelerator card with 8Mb of RAM, and 4Mb of 16-bit RAM. And I still run out of memory when I use Scala, or want to play large sound samples or modules.

Why? Because I only have the 'Fat' Agnus chip.

The Agnus chip controls all access to Chip RAM, which is the equivalent of video memory on the PC. On the Amiga, all display screens are held in Chip RAM, as are all sound samples and modules. The amount of Chip RAM you have affects how many screens you can have open and under Scala, for example, it affects the type of wipes and fades you can use.

The original Amigas up to the A2000 only had 512k of Chip RAM which was controlled by 'slim' Agnus. Later models featured the Fat Agnus chip that could handle 1Mb of Chip RAM. The AGA (Advanced Graphics Architecture) machines such as the A1200 and A4000, and the ECS (Enhanced Chip Set) A500+ and A600, have 2Mb of Chip RAM controlled by the so-called 'Fatter' Agnus. The first Amiga to feature such a chip was the A3000.

Almost all the ECS chipset can be fitted to older non-ECS Amigas with hardly any trouble whatsoever.

Almost all the ECS chipset can be fitted to older non-ECS Amigas with hardly any trouble whatsoever. However, the Fatter Agnus poses a problem, as it needs to obtain an extra 1Mb of memory from somewhere, and the address lines needed to access it.

The solution is a board-based adaptor complete with an extra 1Mb of memory. Such expansion boards have been available for several years - notably the DKB product,

but since the Commodore liquidation in 1994 they have been difficult to obtain, and cost around £150.

Enter Eyetech, with their 2Mb Chip RAM Expansion.

This handy little board offers A500 and A2000 owners the ability to take advantage of the Fatter Agnus without having to upgrade to an AGA Amiga. Very useful if, like me, you have a considerable investment tied up in your existing kit. The board comes from Germany and the same makers as the SX32 expansion unit for the CD32, DCE.

It consists of a very small circuit board with the replacement Agnus, 2 DRAMs (Dynamic Random Access Memory chips), and a pair of flying leads to a DIL (Dual In-Line) plug. This Agnus replaces the existing Agnus chip, and the DIL connector is plugged into the Gary chip's socket to generate the additional address lines to use the extra 1Mb of Chip RAM.

Fitting is straightforward and very simple. Although be warned that, due to the nature of the Agnus chip, it can be physically difficult.

Fitting into an A2000 is a bit involved as it requires the removal of the cover, power supply unit, and drive chassis. The Agnus chip then has to be pulled out, difficult even with a chip pulling tool, and the rep-

lacement chip inserted (most importantly) the correct way round. A similar procedure is followed for the Gary chip.

Plug the DIL connector into the existing socket and then plug the Gary chip into this. Re-assemble the chassis, and power up the Amiga. If everything has gone well, Robert is your mother's brother, and you will see an extra 1 in front of the figure displayed at the top of the Workbench, indicating the amount of Chip RAM, and you can power down and reassemble the machine. If not, ensure all chips are fitted tightly and correctly oriented.

The new Agnus chip is "square" with contacts along each side, and it can be really difficult to remove. IC extraction tools are available, but even using these, it's a difficult job. I was pulling the chip so hard that the motherboard started to come off the risers, and still the Agnus clung firm! Eventually brains succeeded where brawn failed, and I used a small jewellers screwdriver alternately to prise up opposite corners before using the extraction tool to remove the chip. If you try this, be very careful - the socket is rather fragile and can shatter if you exert too much force.

I haven't mentioned the installation manual as an English version

is still being worked on. Alan Redhouse at Eyetech assures me that it will be of the same standard as those for their InstantDrive range of hard disks, which bodes well.

If you try this, be very careful - the socket is rather fragile and can shatter if you exert too much force.

There are at least two non-AGA Amiga models that will not be able to use this product: the early A1000 and the original design of A2000. Both of these used a physically different Agnus chip which was oblong instead of square.

And if you have fitted it and find that your Amiga works, but you have only 512k or 1.5Mb of Chip RAM, you probably have a very old Amiga that requires a further, simple, modification to enable access to the full lower 1Mb of Chip RAM.

Overall, this expansion board is a very useful product, especially for video work where the older Amiga can still earn its keep, or as an existing investment protection. At £129.99 it's cheaper than the competition, but still somewhat overpriced given the current cost of memory. However, this is mainly due to the cost of the Agnus chip itself. It's a niche market - rather than mass market - chip, and so will remain expensive. Although if you need it, and can afford it, it's certainly worth buying for that extra RAM and the power it brings. **AUI**

INFO

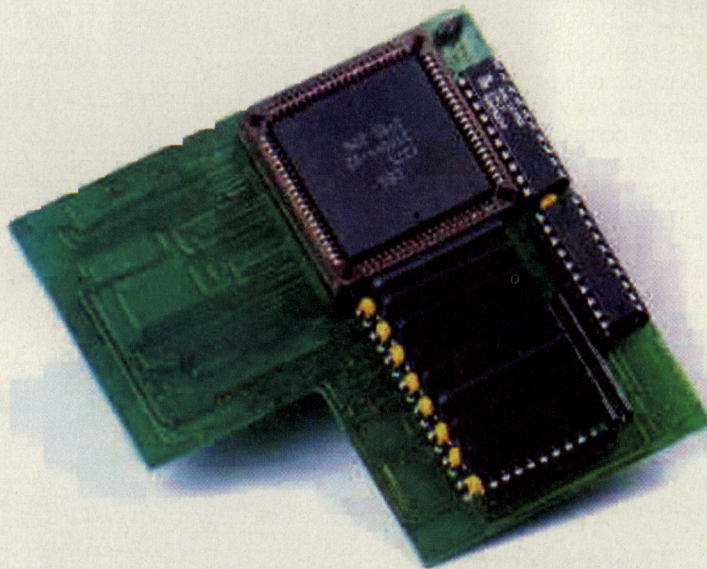
Eyetech Chip RAM

Price: £129.99

Rating: 95%

CONTACT

Eyetech Group Ltd.
12 West Green, Stokesley
North Yorkshire, TS9 5BB
Tel. 01642 173185



The circuit board has the 'Fatter' Agnus chip and the extra 1Mb of Chip RAM upon it.

Good Vibrations?

David Ward, not generally, he claims, a user of exotic aids, draws the short straw and is volunteered to undergo trial by Aura Interactor and so enter the new vibrational dimension of gaming.



Backpacking in the USA...

Game players always strive for more realism in their amusements. In the arcades there are now 'experiences' that use Virtual Reality, or some sort of sit-in simulator, to attempt to enhance the action. The best examples I have seen are of motor racing and air combat genre.

For the home user, there have been the 3D glasses and semi-Virtual Reality headsets (Escom's notorious IO Glasses). Now a Californian company called Aura has brought to these shores their latest innovation, the Interactor, which is designed to make you feel, yes, feel, the game. The Aura Interactor consists of a solid backpack-like unit, power amplifier, and mains adaptor.

The backpack contains a 'sounder', which is a flattish metal disc device capable of generating low frequency sounds, and little else. This unit is strapped to your lower back and it is shaped to fit the hollow just above your waist, always assuming you do have a hollow above your waist.

The separate amp is quite a large affair considering the number of internal components. On one side there is the output for the backpack, on the other is the power input socket, the mini-jack input for the audio source, a Game/Music selector switch, and a three position switch labelled 'Normal', 'A', and 'B'. On the end is the Power

(volume) and Filter (cut-off) controls.

The Aura Interactor comes with a range of adaptors that allow it to be connected to a variety of game systems or other audio sources such as a CD player, VCR, or TV.

With everything connected up you can sit in 'comfort' and enjoy your favourite music/TV programme/computer game as you've never experienced it before!

This is quite true. For a start, you cannot slump back into a comfy armchair. The backpack must be kept in the open so it does not overheat and to ensure it functions correctly. Secondly, you will now feel your internal organs participating in a vibratory caper for which they were not designed.

The Aura Interactor comes with a range of adaptors that allow it to be connected to a variety of game systems or other audio sources such as a CD player, VCR, or TV.

The little handbook that comes with the unit has a page devoted to the hazards of equipment interfering with radio and television recep-

tion. Another page details the symptoms of epilepsy that can be brought on by flashing lights, but there is no warning about the hazards of exposure to vibrations.

There is a single line towards the back of the booklet that states that the unit will become quite warm after extended play, and that you should take a ten to fifteen minute break after an hour's use. The way this sentence is worded makes it sound as though you're doing this for the benefit of the Interactor unit - allowing it to cool down when switched off - rather than for your own possible good health. Could that be true?

Conclusion

With the backpack correctly strapped on and the control settings right, you do experience every whack, thump, and bang in a game or TV programme. Unfortunately I had to be perched on a stool rather than in my favourite chair to feel this.

I was also worried about the insidious effects the vibrations were

having on my body, and I cannot help but think that younger users might be going to have the volume turned up and so exceed 'comfortable' levels.

The Aura Interactor is a gimmick. And games players love gimmicks. The makers claim to have sold 1.5 million units to games players in the USA, but I personally have better things to on which spend £70. However, if you want to extend the experience of games' playing into a vibrational dimension, ask your dealer for a test drive first, and, literally, find out how you feel about it before you buy. I may not want to be Shakin' Stevens but the Aura Interactor might just be the kind of vibrator that will turn you on. **AUI**

CONTROLS

The idea behind the Interactor is to take some of the sound frequencies in the source material and send them to the backpack for conversion from audio energy to mechanical motion - otherwise known as vibration.

With the Game/Music switch set to Game, incoming frequencies are divided by 4. The Filter control determines the cut-off frequency at which certain sounds will not be sent to the backpack. If you have ever used a radio with a 'Squelch' control you will already have an idea of how this works.

Set to Music, the Interactor passes all frequencies to the backpack. The Filter control therefore becomes more important in getting the right effect.

The manual states that you must experiment with the different settings to get the best effect. Some games work well in Music mode for instance.

The Power control is straightforward volume. More volume, stronger vibrations.

The Normal/A/B switch is for future game releases that Aura hope to have optimised for use with this system. A/B refers to player A or B, and with the switch set appropriately you will feel what player A or B feels.

VIBRATIONS - THE HAZARDS

Short-term exposure to vibrations at the level of frequencies put out by the Interactor unit are probably not going to do any long term damage. But excessive use might possibly cause problems.

The human body was probably never designed to undergo this sort of 'experience' so you should keep your exposure limited to sensible levels. If you don't then blurred vision, stomach upsets, backache, and even varicose veins could become an unwelcome result of your game playing. But then that is true of excessive game playing anyway.

There are legal limits to what workers can be exposed, so don't overdo it at home and, as this unit is really aimed at kids, we would urge parents to enforce the booklet's recommendations.

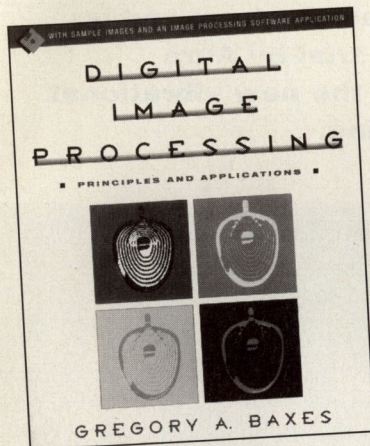
INFO

RATING 75%

Aura UK
Aura House
57 Westbury Hill
Westbury on Trym
Bristol
Tel. 0117 9490902

LIGHTENING THE DARKNESS

Two titles that would not look amiss in the Amiga user's reference library are reviewed this month by David Ward.



Digital Image Processing

With a sub-title "Principles and Applications" you could be forgiven for thinking that this book would be far too technical. It is not. The number of formulae within the book's 450 odd pages are infrequent. They are only there for the user familiar with or anxious for such things, for this book has been written as an introduction for the end-user as well as the system designer and developer.

Gregory Baxes ensures that you understand the ideas behind digital image processing by explaining them in a straightforward way. However, it is best if you do have some sort of mathematical background so that your brain can understand some of the more complex concepts involved. Although, as with Stephen Hawking's best selling but apparently little understood "Brief History of Time", you can ignore the bits you don't get and still comprehend the general idea.

The author starts off by examining how the human eye/brain combination works. It is quite surprising to learn that what you see is not necessarily what is actually in front of your eyes, real life is by no means WYSIWYG.

Our visual acuity may be far in excess of current TV camera technology, but when it comes to distinguishing grey scales, contrast, and brightness levels, then we must stand ashamed next to the elec-

tronic eye. Colour too can be another failing.

Once you realise that 'What you see is NOT what you get', you can appreciate how images can be positively altered to improve them for our visual consumption. These improvements are comprehensively explained in a following chapter. Gregory Baxes shows how different techniques can be used consecutively to enhance an image, even though some apparently degrade it first.

There are a number of shareware image processing packages available for the Amiga, and it is a pity that these powerful programs are often accompanied by documentation that assumes you know all about the subject before you start.

However, by experimenting you can often see what high and low pass filters do, how Laplacian filters work, and many other things. Digital Image Processing: Principle & Applications fills in the gaps. It teaches you why these packages give you histograms and the ability to convert using the Discrete Cosine Transformation. Sometimes it is better to process this, rather than the real thing, and then convert back.

The book covers image digitizing, and explains one of the great mysteries of the cinema - why do wagon wheels appear to rotate backwards in Westerns?

The flip side of Image Processing - Machine Vision - is examined, along with descriptions of equipment involved, especially TV cameras and display systems, both for European and US readers.

Image compression is covered quite deeply, but different file formats are not described in great detail. PhotoCD and TIFF being the exceptions. Medical imaging gets its own chapter, and the techniques used to reconstruct solid 3D images from multiple X-ray scans leads neatly into a chapter on solid 3D modelling for engineers and architects.

The book is supplied with a floppy disk containing example images and a small image processing pro-

gram if you are running Windows on a PC. This is the book's only "fault".

INFO

DIGITAL IMAGE PROCESSING:
Applications & Principles
Author: Gregory A. Baxes
Publisher: John Wiley & Sons
ISBN: 0 471 00949 0
Price: £32.50

The Net After Dark

In previous books about the Internet that we have covered in **AUI**, it is often the case that the final chapter or two is taken up with interesting places on the Net to visit. In 'The Net After Dark', the entire book is littered with references to good places to visit!

Lamont Wood has written an informative guide on how to behave on the Net when you decide to explore the less salubrious areas he suggests you check out. For instance, he lists over twenty sex related newsgroups alone, as well as areas devoted to cyberpunk, music, science fiction, authors, games, literature, TV, and so on. Lamont Wood poses the question "What can you not find online?" but doesn't really answer it.

The book is written in an easy-to-read style with many bulleted lists, information boxes, and little icons. With these he rates conferences and mailing lists that, at one end of the scale, can supply you with constant, informative, data, while at the other there is incessant drivel.

The book is illustrated, but the trendy blue ink on white paper, while making a pleasant change when reading the text, does not do so well when conveying pictures to the viewer. Many are difficult to decipher.

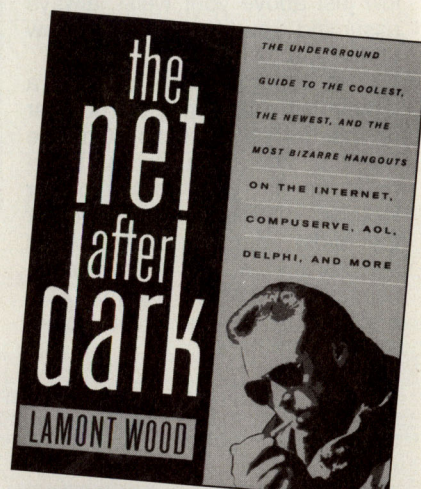
Like Douglas Adams' 'The Hitchhikers Guide to the Galaxy', which was full of useful and useless information, 'The Net After Dark' ought to have been called a 'Hitchhikers Guide'. It is a handy book to have when you're deep in cyberspace,

for it tells you how to interact with the denizens of the "undernet" as Lamont Wood calls them. There are good tips here on what and what not to do or say.

Although they cannot see you, or vice versa, you do not want to upset denizens. In a real life situation you may end up with a punch on the nose, but on the Net a verbal thrashing can often injure - mainly your pride. Go too far being obnoxious and you may find yourself downloading several megabytes of mail next time you log on and being "flamed" can be a very unpleasant experience.

As well as the conferences and news groups, the book also details file downloading from the "software stashes", on-line games, Internet Relay Chat (IRC), and virtual reality - of which we Amiga users cannot currently take advantage.

The Net After Dark is not an invaluable book, but it is one that you should read before venturing out into the electronic communications world. Learner drivers get instruction as to how to behave on the roads, so should novice Internet users when they venture out on to the Information Superhighway. **AUI**



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THE NET AFTER DARK
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Publisher: J. Wiley & Sons
ISBN: 0 471 10347 0
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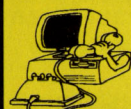
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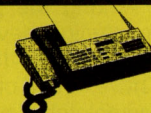
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The Amiga's Racy Sibling

The DraCo: 'Kissing Cousin' or 'Black Sheep' of the Amiga Family? Steve Bowie interviews Macro Systems' General Manager, Jorg Sprave to throw some light on the mysterious machine.

In the many travails of the faithful Amigans, perhaps the current situation is the zenith of confusion. No less than a handful of pretenders to the throne are promising machines that are bigger, better, and faster. Who, if anyone, should we believe? Will any of them actually bring a new 'Amiga' to market? Will the real Amiga of the future please stand up?

Among the players, one long-time Amiga developer has parted company with the pack and seems to have forged on alone. Macro had a completely new computer on sale for over a year now. The DraCo (once described as an Amiga 'clone', then as an Amiga 'workalike') does indeed bear a family resemblance to its Amiga sibling, and no wonder since they both run AmigaDOS. So is Amiga's racy younger sister going to steal our hearts?

By the time we finished the DraCo, the whole Amiga thing had changed. There was a buyer, Amiga Technologies was formed, and we came to an agreement with them to licence the OS. But all the other parts, the hardware... you know, there are no custom chips in the DraCo so we are really hardware independent.

After the DraCo was finished we naturally proceeded to the next step, and that was the 32-bit VLab Motion card. The 16-bit VLabMotion card was running in the DraCo with more performance than in any Amiga system. We clocked the Zorro2 bus to get a higher datarate, we had the fastest controller there is, fastest memory there is, so everything is optimized for the high bandwidth non-linear video editing job. After we finished the 32-bit VLabMotion motion card just a few weeks ago, we showed it off at NAB and excited broadcasters with its quality. So we have a system that's a 'killer' application and it's running the Amiga OS. We think that's something unique in the Amiga market right now.

Macro Systems

Thumbnail History

We started in 1988. At that time we did hardware controllers, memory cards, and all these things. There was a lot of demand for these products because Commodore didn't make them. We turned into a corporation in 1991, as a privately owned company. About that time we came to market with the successful VLab, a real-time video digitizer delivering 24-bit quality. We're still selling a lot of them, so it's probably been one of the most enduring products the Amiga market has ever seen!

We needed a display item to really show the picture quality of the VLab so we came out with the Retina, a Z2 device at that time. This was an enormous success as well. We learned that people wanted to have Workbench emulation running on it, so by the end of 1992 the first version of RetinaEMU (which allowed Amiga users to display high resolution 24-bit flicker-free graphics) was available.

We also had sequence recording with the VLab Y/C, using an interleaved recording technique. There was a great demand for this, but we realized that to record video frames 1:1 we had to compress the video... thus the VLab Motion card was born.

We began to sell the VLab Motion product in summer of 1994 with very basic software. There was not much editing functionality, and we still had lots of bugs. Since then we have worked continuously on the product and have come up with lots and lots of upgrades. By now I can say that the product has a great deal of power... it's really very much grown up.

So the only limitation we have is that we use the Amiga, which was okay in its time... the Amiga had a pretty good bandwidth and I think the best operating system there is for micros. Still... very effective, a lot of direct control of the card, and so we did pretty well with that one. However, we felt that there was a need for better picture quality. With the compression board that means higher datarate, so even with the best accelerator boards around we really couldn't deliver the highest professional quality. We could satisfy most of our customers, but not everyone. There was a need for a faster card. We strongly considered doing a Zorro3 card, and without the demise of the Amiga we probably would have a Z3 card by now.

However, in the summer and fall of 1994 there was really a critical point in our development. We had seen that the Amiga product was going down - not because it was a bad product, but because the management was so terrible that the company broke down, and the procedure of finding a buyer was unfortunately long. The longer it took, the clearer it became to us that anyone who would follow up would have a very, very hard job to bring the Amiga back to success. We did not expect that this would happen, so we needed to find a way out of the Amiga business.

We seriously looked at other platforms. We looked at the PC and Macintosh, we looked at Acorn, but we really found that for all of these systems we would have to build an extremely complicated and expensive piece of hardware having a lot of processing power and a hardware controller onboard. That was not what we wanted. We wanted to be less expensive than our competition, and yet deliver more power and picture quality. We decided that the Silicon Graphics platform would be the only one that would make sense for us, but that was such an expensive system that it was out of the question!

So, we thought that we already have a lot of the pieces of 'the new Amiga'... very fast graphics with the Retina Z3 graphics card, Workbench emulation... During November 1994 we decided to develop the DraCo, which is an independent platform which can run more than just the Amiga operating system- we can run the MacOS, we can even run NetBSD Unix on it. But the AmigaOS was the OS we wanted for our non-linear video editing.

It took us only about four months before we had the DraCo up and running for the first time. We showed the running prototype at NAB 1995. In September 1995, we started to sell the first DraCos. In a very short period of time, about three quarters of a year, we finished an entire computer and we are proud of that fact - we made things happen!

How will it be possible to maintain the current price/performance ratio of the DraCo as new technologies (such as advanced compression schemes) appear?

The DraCo is really a modular system. It's not a 'closed box'. Although the processor board, video board and so on really fit perfectly together, they are exchangeable. So we will probably come out with an optional higher datarate graphics card by the end of this year with 8 megabytes VRAM and a very fast video DSP, even able to do 3D real-time rendering. Since it's modular, we'll be able to just replace the original graphics card and it will still work.

But the basic job of the DraCo is non-linear video editing, and the only part that's still missing at this point is real-time rendering. It's way quicker than it was with the 16-bit Amiga solution. On the new card every chip has been replaced, not one chip has stayed, so we can use it now for compressing and decompressing JPEG images off-line for rendering. But still we render, and the next goal obviously is to sort that out. That will probably mean there is going to be another dedicated co-processor.

We don't really care that much for program software that is not in valid relation to our video editing application. We see the DraCo as non-linear video computer, and we believe that if anyone wants to do mainly, like text processing, then he can go out and buy a very inexpensive PC and use it as a second product.

What will be the base configuration of the DraCo offered in Europe?

In Europe we will offer a configuration that is very basic... the empty DraCo with a minimum amount of RAM, a CD-ROM drive, and the graphics card of course, from 6000 DMarks. Our concept in Germany is to build up a dealer network that is fitting the machines up to the need of the customer. This means that the customer can

have his own wishes as to the size of hard drives, software and these kind of things. Everyone has different demands, and hard drive prices are falling rapidly. We don't want to be stocking tons of hard drives, we really want the hard drive to go into the DraCo as late as possible, for the sake of the consumer.

Will European DraCo's be shifted to the 'cube' case used in North America in place of the familiar tower?

The next production run will be in cubes, but the current ones are towers. Since it's just a change in

cases, DraCo owners can change later on if they wish, there's no specific hardware change involved.

Rather than market the product cheaper, we wanted to bring more power.

Why the change?

The main reason for the change is that we don't want the DraCo to look like a PC. Also, the

price to produce to the DraCo has been going down, RAM, CD-ROMs etc., have been getting cheaper. Rather than market the product cheaper, we wanted to bring more power. The new cubic case is far more expensive than the tower because it's meant to be a network file server. It has a stronger power supply, better shielding, more drive bays, and it's sturdier.

Is the motion JPEG capture card included in the base price you mentioned?

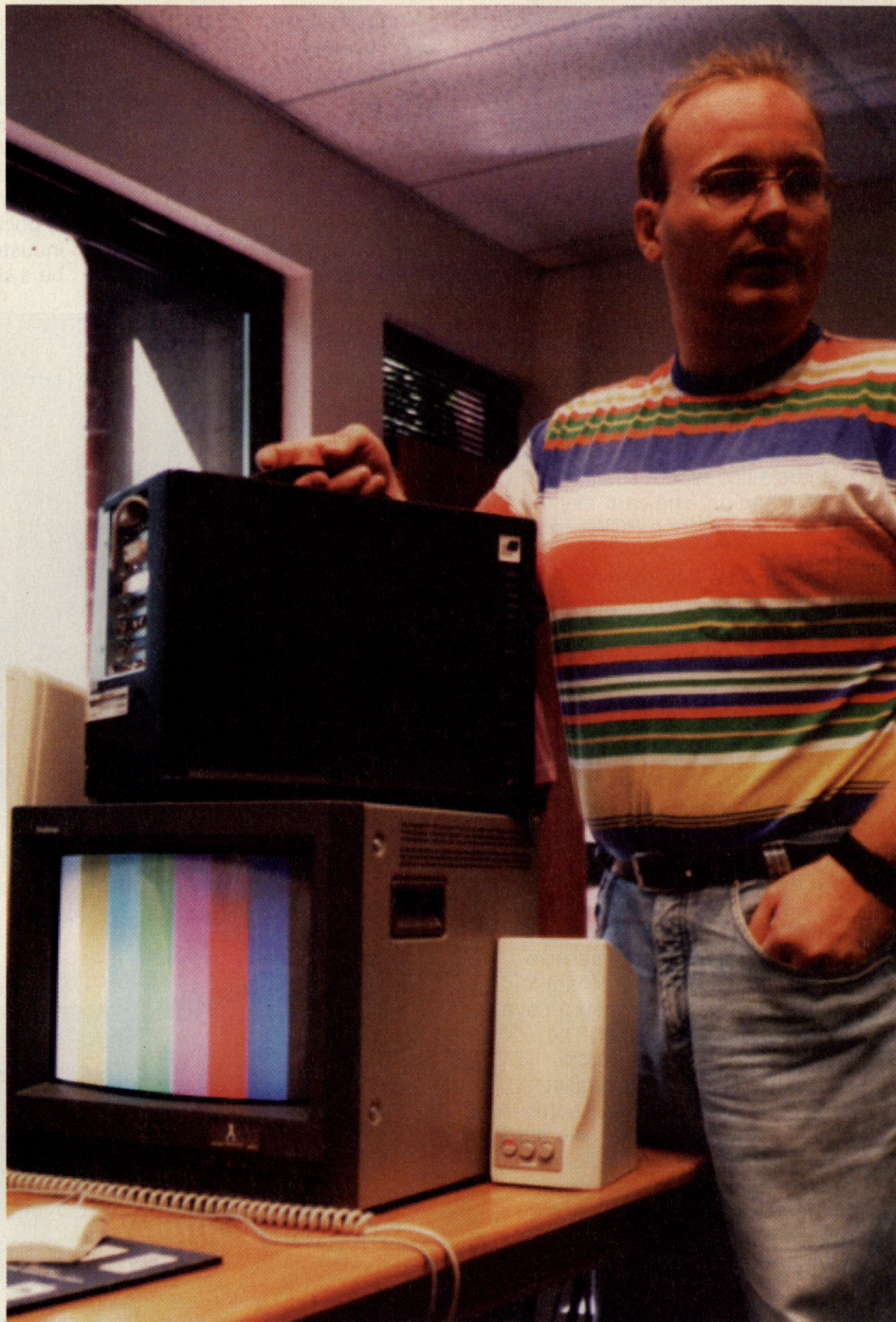
No. A fully equipped DraCo with drives and everything is still much cheaper in Europe than in America, because we have at least one less margin - for our distributor - and also the American professional dealer margins are higher. So a fully equipped DraCo with all the boards, a decent amount of RAM and HD's is only about 10,000 DM in Germany.

The underlying premise of the DraCo from the first time we heard of it has been delivery of truly uncompressed video. What progress has been made toward this?

What we would have to deliver to do uncompressed video would be a SCSI controller that's fast enough for it. That will probably come sometime in the future, since the SCSI controller we are using has

a sister version that is doing WIDE SCSI. The reason we're not using it now is primarily that it's not compatible with the SCSI2 drives in existence today. WIDE SCSI offers DAT hardware today, but other things like bitstream and removables aren't there yet, so we need to look into this matter. There is not such an urge to do it yet, because uncompressed video is such a huge waste of hard disk storage, needing around 25 megabytes per second. That does fill up a hard drive pretty quickly.

If we do it, it's a feature to advertise. The DraCo currently has a maximum throughput of about 10 megabytes per second, limited by the SCSI2 controller



Proud 'Papa' and 'baby' Draco-prototype field model.

onboard. You would need a RAID assembly to get near that, otherwise the DraCo will do about 6 megabytes per second to a single hard drive. We feel that even broadcasters cannot separate video starting at about 3.5 megabytes per second from uncompressed because artifacts are so small you can only see it with a large magnifier. So people will probably not use it because it's just a waste, nobody would notice it. The image quality that DraCo has at this moment is great, rivalling the top NLE products. The uncompressed version would limit the use for commercials, because even large arrays of hard drives would have very limited storage capacity. At this time the demand is much stronger for real-time rendering, so that is our next goal.

We don't want to get word out about great things we will do in the near future and then never come out with them.

We're still kind of small, having just 16 people, so we want to keep our goals clear. We don't want to get word out about great things we will do in the near future and then never come out with them. We're known for keeping our word, anytime a product was announced we've been coming out with it. When we announced the DraCo no one believed us. People said we were 'dreamers'. Nine months later the product was there.

DraCo currently has Zorro2 and DraCo Direct slots for peripherals. It has been shown as well sporting a PCI slot. What thoughts do you have as to possible future bus configurations of DraCo?

You're right, PCI is something that we strongly considered. For our video application we would not go PCI, mainly because PCI has a certain overhead, DraCo Direct does not. DraCo Direct pretty much means that your video card is directly on the main board of the computer since that is really directly the Motorola bus, just with some buffers so that we can have more than one card. But we don't lose any protocol overhead on that, and this is very important.

PCI can be very fast, but you still have an overhead because you're not directly at your card. So, for the VLab Motion card, and the video card, and for our own brand we will probably never change to PCI, but for the future, PCI can still be an important step because there are cheap peripherals available for it and we would only have to write drivers for the board.

The time isn't there yet, because for now we still benefit from the availability of drivers for the Zorro2 cards for video, audio and so forth. So far there's no Amiga with PCI, and there's not even a solution for PCI, and not one card that we could run under a PCI version DraCo.

Software development is a time intensive procedure, so right now we don't think that the time is right. Even if we had PCI functionality it would be nothing more than a promise that right now nothing fulfils. Future DraCos will probably see PCI rather than Zorro2, but that would only happen after we have had time to write drivers for such cards, or some third party would do so.

We have made the DraCo modular as I've said, so the motherboard is totally passive and only costs a few dollars to produce, so we will keep an eye on the upgrade market. The DraCo is a 'small' platform. We're probably the smallest computer manufacturer in this world, so we need to make sure that people stick to us like glue. We want to continue working with the people we're winning for our product, and that's why upgradeability is the key word.

How close to realisation is implementation of time-code, machine control and such things required by the high end broadcast field?

Very close. Those are really minor steps in development because none of it is problematic. It's definitely going to be this summer, maybe in August or September depending on how long the beta testing runs on it. People will see new versions featuring EDL and machine control pretty soon.

The new 32-bit card already has bus connectors for the new FireWire standard. What future do you see FireWire playing in the DraCo?

First of all, we think that in the future everyone could go for the FireWire option because it has so many benefits. It's probably going to completely replace Ethernet. We've already seen that, for example, Apple wants to equip their machines with FireWire instead of AppleTalk. Even for PC's you can now get Adaptec controllers for FireWire. There is

artifacts... this has a lot of appeal.

We got hold of prototypes of the FireWire connection, this is a little early for this kind of thing because other peripherals are still kind of 'getting together'. For example, FireWire cables are extremely hard to get hold of, this is going to come a little later. The industry knows that this is going to be a new standard, so nice



MS General Major with DraCo motherboard sporting Motorola 68060/66.

also a big future for FireWire for interfacing with the mini DV cameras. We think that those cameras deliver great quality never seen at this price before, never seen in consumer stuff before. That is, such brilliant, professional looking image quality, with no dropouts, without analog

peripherals are going to come out real soon. We want to be on-board real early because the first people able to show something like this off will win!

There have been rumours about a second 32 VLab Motion card, a 'stripped down' version,

being considered for use in the DraCo. Can you tell us about this?

This goes back to the issue of real-time rendering. There are two ways we can achieve that... the first is to use a high performance general purpose co-processor

It would take less time to render the video than it takes the user to move his pointer over to the 'Play' gadget.

board to speed up rendering so much that people wouldn't feel it wasn't 'true' real-time. It would take less time to render the video than it takes the user to move his pointer over to the 'Play' gadget. This would be so close to real-time that the user wouldn't complain about that.

And the other solution, of course, is to do it like other people have done it. This means to have a second player card and embedded video mixer that is software controlled. That would mean that you just copy the B roll over to the second player card and perform the rendering in true real-time because it would be entirely done in dedicated hardware. The advantage of this system is clear but it's expensive, it would need more hard drives as space for the B roll.

Also it's only useable for 'pre-canned' effects. So, we haven't decided yet, we're still looking at these matters.

We've heard of recent attempts to harmonise the efforts of potential Amiga 'clone' makers and AT for future versions of the OS. If these efforts succeed, will we see a DraCo with WB4.0 or greater?

I guess so... As far as these efforts go, we really don't think something will come out of that, because the companies involved are small companies with their own ideas. We don't think that there's going to be an agreement that everyone can work for. Also it's going to be real hard for the business side of this thing. For an Amiga to be developed by four or five companies, you'd have to agree on how profits should be shared, and everybody thinks that they deserve the greatest share!

So, we're not sure about that. We've been invited to those meetings, and we would like to

see something like that working out. Our development time is completely used up for our products, but I can say that if there were such a thing as a RISC powered Amiga with a beautiful operating system, and the operating system were to be available to us, there easily could be such a DraCo because the hardware is really the smallest part.

You know, the AmigaOS... translating it over to some other processor is really the biggest job. So, doing a PowerPC DraCo would not take a long time, only a few months. If we see that this is coming along, yes, there will be such a DraCo.

How are efforts to encourage third party development for the DraCo coming along?

This is very important to us. We have a Developers Package for MovieShop, and we're working with other people. We already have a few new operators coming from third parties. We'd like to have an ImageFX version that will join in with our product. We really encourage everyone that has something useable for video to talk to us about that as it's a great market opportunity. We haven't sold thousands of DraCos yet, but it's a nice market. Keep in mind that our users are willing to invest... They've spent at least 10,000 DM on the whole product and won't mind spending another few hundred for software right off. So, it's a very good market, and we're very pleased with our success so far.

Has Macro Systems had any contact with VISCORP, and how do you feel about their intentions and efforts to date?

We were invited to the Toulouse meeting, but we were really busy at that time. As well, we felt that it was too big a meeting to allow direct communications. Our biggest concern right now is that this deal has not been completed (*This interview was conducted before the VISCORP deal was completed - Ed.*). As far as I know, there's no signed contract. It's only talks, so we don't know if it will ever work out. We will not lose time talking to people who are interested in buying the Amiga. We will talk to

people who have bought the Amiga, and then we will have to carefully find out what's going on.

We know the people involved in the deal - I personally know Carl Sassenrath, who is their chief engineer - I also know Don Gilbreath, so we think that these are good people, capable people. Carl Sassenrath was the key developer for the first AmigaOS. We do not think that the Amiga has a big chance to be a top selling computer in the future because of all the time that's been lost. It's going to be very hard to catch up. We think a new Amiga will sell well into the existing Amiga community IF it has a new processor, otherwise Amiga people wouldn't change, wouldn't trade in their beloved machine for some other thing.

Should the Amiga community regard the DraCo as a competitor?

No, absolutely not! It is not a competitor to the Amiga, although some people may consider the DraCo rather than an Amiga because the DraCo has a lot to offer... it is a non-linear editing (NLE) platform. We've been

For an Amiga to be developed by four or five companies, you'd have to agree on how profits should be shared, and everybody thinks that they deserve the greatest share!

surprised by the compatibility of the DraCo, but it is by no means sure that we'll continue to see lots of Amiga software development going on for it. You know, there is text processing, ray tracing and so on available for DraCo, but the goal is NLE. NLE on an Amiga can only mean consumer grade quality...

Will the Paladin card (which will allow the new 32-bit VLabMotion to be used in a Z2 Amiga) ever be produced?

Yes. The Paladin is a product we will bring to the Amiga market. The product is finished, we're only working out last minute things for the SCSI device driver that's onboard.

What support remains from Macro Systems for owners of your Amiga product line - the Toccata, Retina, and so on?

We have not limited support at all. We still support all of these products and we WILL continue to do that. Since we are now in the favourable position that software development is totally financed by

We've been surprised by the compatibility of the DraCo, but it is by no means sure that we'll continue to see lots of Amiga software development going on for it.

our inexpensive upgrades we would be stupid to stop doing that. So we still produce those products. It's just that to develop new hardware we would have to see significant demand for it, and not only sell them as upgrades to existing users, but also to new users because that is where the profit comes from. Right now there is no market from new users, it's all upgrades.

From these comments it would appear that, at least in the eyes of Macro Systems, DraCo and Amiga can co-exist. Only a small percentage of Amigans are in the high-end NLE market, so it may be that both platforms can benefit from some shared interests, and 'trickle-down' in application software. Developers of graphics applications for the Amiga might find a little extra money in the pockets of DraCo users, and vice versa.

With the Paladin, Macro Systems continues to bring new potential to Z2 Amigas, and they promise continued support for existing Amiga-based customers which is more than many Amiga developers are willing or able to do these days. If Macro Systems could get a whole new platform to market in under a year, maybe we should be hoping that VISCORP take a page from Macro Systems book and 'get the lead out!'

We had the opportunity to take a 'sneak peek' at a prototype of a possible new DraCo model, a portable 'field model' bearing all the internals of its big brother. Don't try to buy this one though, the experimental LCD display alone cost nearly US\$5000! AUI

We're Talking About the Amiga **PART 1**

Ashley Cotter-Cairns interviews HiSoft's David Link to discover his thoughts about the future of Britain's best-loved computer.

HiSoft is as old as the Amiga herself. Initially created to supply programming aids to Atari ST users, HiSoft quickly recognised the potential of Commodore's greatest creation. Soon, versions of its most popular titles were outselling ST equivalents and HiSoft began to concentrate its efforts on building a future for the serious Amiga user.

This future has looked decidedly shaky in recent times, largely due to the financial collapse of the Commodore empire and the uncertainty about whether the technology would find any buyer at all, let alone one capable of giving the Amiga the attention it so richly deserves.

So what does HiSoft's managing director David Link feel about the Amiga at present?

"Sales of our Amiga products are good, though buoyant would be too optimistic a word. I've noticed a slip over the summer period, but summers are always like that. We've made it a matter of priority to give our products constant development and improvement over the years and this has been rewarded with tremendous loyalty from our customers."

Unlike most publishers, HiSoft won't take on a project and simply offer it to the public. "We have to add significant value to our packages. Good products just don't occur overnight, they require hard work and the knowledge to say, 'This is what the consumer demands, so let's give it to him.' Documentation has to be helpful and informative. These are not radical concepts, just common sense."

Committed

HiSoft has a schedule which, though not overwhelming, still shows that the company is committed to supporting its Amiga faithful.

A new version of Cinema 4D (price £TBA) will be followed by an update to DiskMagic and a program which is codenamed Multi-



The Squirrel SCSI interface has opened up a whole new world for A1200 owners.

media, a low-priced multimedia presentation program which David wants to launch at or close to £69.99.

AmiTCP is replaced by Termite TCP, a cheaper and more straightforward program, while HiSoft has bundled the latest versions of its worldwide web access programs in a package called Net & Web Pro for an estimated £89.99.

The long-awaited Squirrel MPEG, which will allow the playback of VideoCD and movies on the CD-i format from any SCSI CD-ROM (and without the need for it to be connected to a computer of any sort) will shortly be available. "This is a very important project for HiSoft, because it allows us to cross over into other formats and areas which we wouldn't have access to. We hope (David Link smiled) this will provide the funds necessary to finance the continued support of the Amiga for many years to come."

The Squirrel MPEG includes Genlock on its board, which at present cannot be accessed. However, later software additions will allow the use of Genlock to offer the mixing of computer images with the CD-ROM images. "Squirrel MPEG could take HiSoft into the world of the consumer product, to be sold in the likes of Dixons," David Link commented. "We just have to slot it into a box with a cheap SCSI CD-ROM and there you have it - the ultimate VideoCD player."

Discussions are underway with a manufacturer capable of meeting the demands of the mass market, but David Link is nothing if not a realist: "I'm not relying on this route to make our fortunes. If it happens, it will be very welcome."

Amiga Tomorrow

David Link's personal view of the Amiga's future is practical and more sensible than many you might have heard. "Obviously, as consumers become more aware of other technologies, the Amiga will fade. But look what happened to the Spectrum. People were carving RIP on its gravestone five years before it stopped selling and in those years, many companies were doing very nicely out of supporting the format."

"Amiga users are very loyal to the machine. They don't want to go out and spend £1,200 to acquire a PC - they could spend that on the Amiga and create a superb bit of kit - a machine that's vastly superior, just as versatile and probably more flexible."

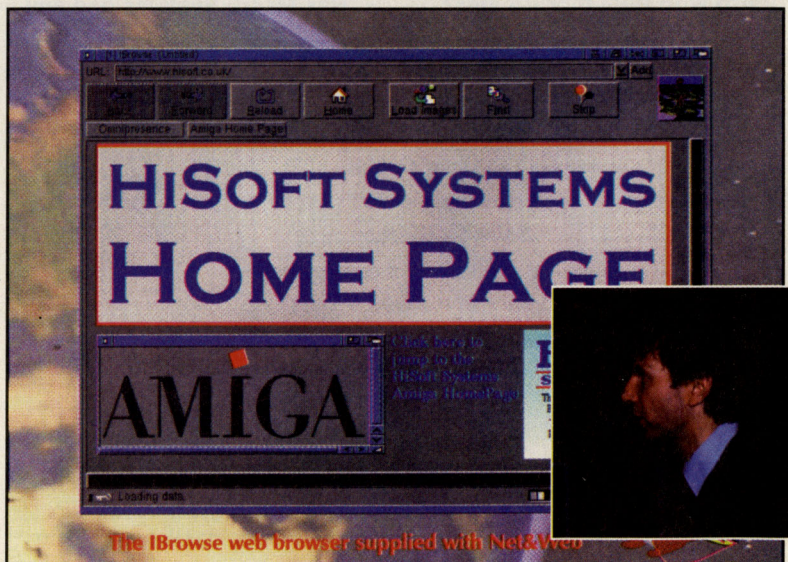
HiSoft is, by David Link's admission, finding the going more difficult these days. "We're having to work harder and watch the margins. If anything, this sharpens our

business and keeps us on our toes. I'm always grateful to hear from the end user. Anyone with suggestions about what they want us to work on next will receive a friendly ear."

David Link is constantly surprised to find that many of his customers are fresh to the company. "Orders come in and, when we check our database, many names are new to us. It goes to show that the second-hand market for the Amiga has remained strong and that the owners of the few million machines out there are active and looking to find new ways to enjoy their Amigas."

One area that HiSoft has recently stepped up is book publishing. "We discovered that there was an absolute dearth of simple 'how-to' books for beginners on a variety of subjects. So we decided that the void could be filled." The initial titles have been 'First Steps Amiga Surfin' and 'First Steps Amiga'. 'First Steps Amiga ARexx' will introduce absolute beginners to the language, and a book dedicated to Wordworth will follow.

HiSoft has proved that the Amiga lives on, despite rumours to the contrary. Where this enterprising and loyal company leads, will others follow? **AUI**



David Link, the brains behind HiSoft Systems.

We're Talking Amiga

PART 2

In exclusive interviews, AUI gets the views of the Amiga today from some of the leading figures in the Amiga world.

Will the Amiga survive, can the Amiga survive the downfall of yet another owner and the passing into the hands of an unknown quantity, VISCORP?

AUI sought the views some of the leading lights in the global Amiga community on the current situation of, and the future for, our beloved machine. Not everyone was willing to reply. Some thought doubtless that silence at this point would at least not leave them looking foolish in a situation that still does not seem to be properly resolved. Others, perhaps, were reluctant to reveal that their view of the Amiga and the circumstances that surround it is unpublishable.

We can tell you that, among others, we contacted VISCORP but could not get a response. We did receive a reply from Amiga Technologies which we include at the end of this special report.

Talking Amiga exclusively to **AUI** were:

- ☆ Ian Greenaway (**IG**) of White Knight Technology, specialists in graphics hardware.
- ☆ Stefan Ossowski (**SO**) of Schatzruhe, one of Germany's leading Amiga software companies.
- ☆ Jolyon Ralph (**JR**), Technical Director of Almathera, leading Amiga software developers and CD-ROM publishers.
- ☆ Alan Redhouse (**AR**) of Eyetech Ltd., a major Amiga peripheral dealer.
- ☆ Mick Tinker (**MT**), Amiga developer and corporate solutions provider.

What's your view of the current Amiga scene?

IG: Poor. We need some words of encouragement from VISCORP.

SO: We believe that the takeover of Amiga Technologies through VISCORP is a positive sign for the market. The recent developments including the bankruptcy of ESCOM AG and Amiga Technologies GmbH did affect the market in a very negative way. Users, as well as companies, lost confidence in the Amiga as a viable platform, and many of them started to convert to other computers. VISCORP's primary goal must be to bring back confidence. The market is desperately waiting for improved hardware and for the next version of the AmigaOS.

JR: If VISCORP hadn't bought the Amiga, it certainly would not

have survived the Escom collapse. VISCORP are our last, best hope.

The Amiga was, is, and only ever will be (if it is to survive) a mass market consumer product.

Alan Redhouse

AR: Well, if you want a single phrase to hang the discussion off I guess it's 'Complete lack of focus'. I see the fundamental issue being that many Amiga supporters/enthusiasts of a technical bent do not seem to realise that the Amiga was, is, and only ever will be (if it is to survive) a mass market consumer product. Sure there will be 'serious' users of upgraded hardware - mainly developers of software for the

mass market Amigas - but these are always going to be relatively small in number and not particularly sensitive to price. Any programmer/technician banging on about the value etc. of PCs relative to the Amiga in the big box arena either doesn't understand this or should just forget the Amiga and get a PC.

It's very nice of PIOS, phase 5 etc. to make big box Amigas for the A1200 etc. developer community, but it's hardly a market in its own right, and will dry up completely if the mass market product/installed base disappears.

So what about the PC as a mass market computer?

Thanks to the inability of Microsoft to produce a properly structured, symmetrical, easily understandable (i.e. a logical directory structure etc.) and efficient OS over the last 15 years (even the 17 yr old Tandy TRS80/LDOS operating system was better structured than MS-DOS in my opinion) the PC is totally unsuitable as a mass market domestic product. Domestic mass market items need to work reliably direct from the box for 5 years without any significant maintenance and without specialist operating knowledge (for ordinary tasks such as 'typewriting', games playing, and Internet connection, at least).

PCs currently have a 15 month lifetime and in business generally cost around £6k per annum to support, per unit. I believe it was the cost of trying to



Stefan Ossowski

support the PC in the domestic mass market which sank Escom. I had a long talk to the ICL Sorbus engineers whenever they came to fix our PCs, and, yes, it frequently needed a 6 hour engineering call out to fix elementary problem in a domestic situation (e.g. a PC boot problem because a backup disk had been left in the drive), and yes, Escom paid ICL on a time and materials basis.

Until now there hasn't been much of a long term outlook for the Amiga! We hope this will now change.

Mick Tinker

So the Amiga still has an excellent opportunity in this untapped, non-technically-self-reliant, unaccessible-to-the-PC, domestic mass market with minimal tweaking. The key, as always in mass market merchandising is good packaging, good reliability, and marketing, marketing, marketing. And by Amiga I don't just mean the A1200, but a repackaged CD32 aka set-top-box aka Ed. In fact, the easier to plug in and use the better.

Our business is still doing quite well and we are in the position to invest into new exciting Amiga products.
Stefan Ossowski

I'm sure that the Chinese could knock out a plug-in-to-the-TV-and-go CD32 for around US\$40, and think of the distance learning potential (e.g. Chinese learning English via autobooting CD32 CD-ROM) once that hardware were installed! And once the mass market is there then the hardware can be used in business for dedicated application areas of business where PCs are too expensive or just not suited, e.g. to replace the slide projector in sales presentations at one twentieth of the price of the equivalent PC notebook, for kiosks, and so on.

MT: The retail market is in need of:

- Stability
- Product availability
- New products

Corporate projects have been hard to sell in the last 2 years because of the long term outlook of most corporate buyers and until now there hasn't been much of a long term outlook for the Amiga! We hope this will now change.

I am much happier with the Amiga in the hands of VISCorp.

How's business?

IG: Business is good, but last year was definitely better.

SO: Despite these negative circumstances our business is still doing quite well and we are in the

position to invest into new exciting Amiga products.

JR: Fine. How's yours?

AR: The Amiga market is only a relatively small (but still expanding) part of our overall business. Our origin was in providing Unix systems and consultancy to the transport and distribution industries and we got into the Amiga market when we started to use Amigas as low cost multimedia delivery platforms. We only supply products which we use ourselves and know to be reliable and supportable. But our Amiga mail order business continues to go from strength to strength fuelled, I guess, by our focused approach to products and support and our refusal to deal with second rate products.

MT: Excellent. Our business has doubled each year for the

CyberVision 64 are good sellers.

SO: Regarding our range of productivity software, programs like TurboCalc and XiPaint are doing very well. We also successfully distribute localized versions of well known international products like Digita's Wordworth and Directory Opus in the German market. Last but not least, our Aminet CD-ROM series and other Shareware CDs are performing excellently.

JR: Photogenics 2, of course! A lot of our Amiga programming work is now on the corporate/contract basis, which means you're very unlikely to ever see it, or if you do you'd probably not realise we were responsible. Not as high profile as Photogenics 2, but it brings in the money which allows us to carry on developing Photogenics and other things.



Jolyon Ralph

last 5 years and unlike many Amiga based companies that has continued even during the last couple of years. We specialise in corporate projects and we have had the good fortune to be able to continue supplying customers with machines without interruption (but with difficulty!) and most corporate projects have much longer more stable life cycles than fickle retail sales.

What's been your best product or project for the Amiga?

IG: The new Cyberstorm II and

AR: There are four really. Historically, by value - our InstantDrive hard drive kits, the EnPrint 24-bit printer driver for the Epson Color Stylus range of printers, and in the specialist market - the SX32 expansion system for the CD32. Finally, in growth terms - our CDPlus 4 and 8 speed CD-ROM with heavy duty power supply and buffered EIDE interface - helped I'm sure by being the first highly specified unit on the market for less than £150.

MT: Hard to say, there have been several which have stood

out for different reasons. The Harlequin 24-bit graphics card software was fun, achieved excellent performance and the card was the leader in the video market at the time. The London Transport Museum project was the biggest and most complex Amiga software and hardware project of its type and it put us on the map for corporate projects.

A lot of our Amiga programming work is now on the corporate/contract basis, which means you're very unlikely to ever see it,
Jolyon Ralph

A more recent corporate training project stands out for its scale and excellent use of the technology. We have designed and manufactured 7,000 CD32 expansion units, as well as supplying many of the CD32's. This is certainly the biggest Amiga project in the world and it gave us some stability while the Amiga market was in turmoil.

Which new products or projects for the Amiga do you have in the pipeline?

IG: The DraCo video workstation is shaping up as our main product.

SO: During the next months we plan to publish TurboCalc 4, a German version of the brand-new Directory Opus 5.5, PrintStudio Pro, the Amiga Repair Kit CD (including DiskSalv 4) and a couple of other interesting projects.

JR: I have to be cryptic because nothing has been officially announced, but I can predict at least one new Amiga product, some interesting Amiga-related products, and Photogenics owners will be happy too.

AR: The SX32 Mk.2 - same price as before (£199.95 Inc. WB3 and utilities on CD), but with an FPU socket - shipping September 1996. The SX32 Pro with '030 MMU 25/50 MHz, FPU socket, up to 64Mb of RAM, IDE controller, and a target price of £299.95, for the 25MHz version and £349.95

for the 50MHz one. Plus a 17" multisync monitor 15-64kHz, available now for £579.95

MT: We are designing an Amiga compatible, mainly for corporate projects. This is powered by the Motorola ColdFire processor to give it a much improved performance over the CD32/A1200 and with expansion facilities built in. We are designing new ASIC's for this machine to help reduce the cost while improving performance.

Are you going to stay with the Amiga?

IG: Yes, as long as there are still people who still want to buy, but we are concentrating on DraCo.

SO: Yes, we are 100% dedicated towards the Amiga platform and we do not waste any time or money to start experiments on other platforms. As long as the Amiga market remains viable and profitable for us we will continue to release new products at a rapid pace.

JR: Of course. We've stayed in the Amiga market so long now we would be silly to leave now - especially now that we've got so many friends and loyal customers in the Amiga world. If we were in business purely for the money we'd have abandoned the Amiga years ago - like so many other companies - so we're hardly going to rush off now.

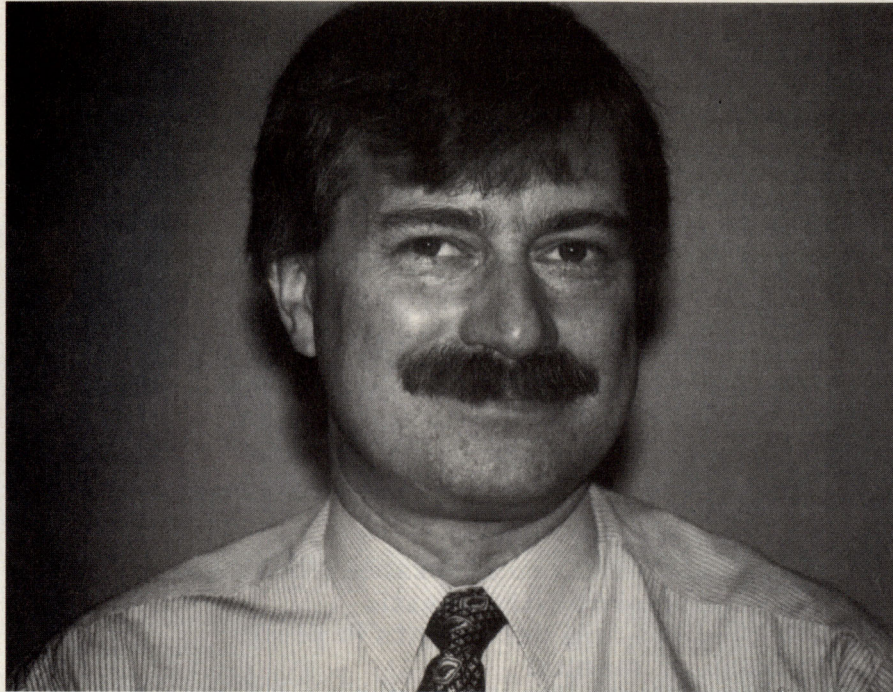
AR: Yes, as long as there is a market and magazines like **AUI** with advertising space and editorial competence.

The DraCo video workstation is shaping up as our main product.
Ian Greenaway

MT: Yes. We have been exclusively Amiga since we started in business over 5 years ago and personally since the early A1000's and the C64 and VIC20 before that. I believe that the Amiga technology has massive potential for corporate applications and I will continue to work to expand its acceptance in these markets.

How do you see the future of the Amiga progressing?

IG: I don't see the Amiga progressing very much further unless we see positive things from VISCORP, or others, with regard to pricing and machine specifications. VISCORP have bought the technology and are



Alan Redhouse

willing to licence it to others so that they produce 'Amiga' computers.

SO: In my opinion this will solely depend upon VISCORP's licensing strategy. I cannot imagine that VISCORP will or can afford the development of new a generation of Amigas alone. If they fulfil their promise to license parts of their technology to third parties then I am sure that with a joint effort of some of the leading Amiga companies we may see new powerful machines in the near future. VISCORP has a fair chance to make it better than ESCOM did, but they have to make the right decisions without any further delays.

JR: Amiga owners are going to have to be patient. Things won't change overnight, and everyone must realise that in order for the Amiga to survive the VISCORP set-top box is the priority. When that is a success the technology will feed back to the Amiga computer, but it might take a year or more for that to happen. In the meantime I would suggest people be very wary about so-called Amiga 'clone' machines that have been

announced. Remember that these could end up being incompatible with the next generation of Amiga software - it may be best to wait and see what all the options are going to be.

AR: It's mass market or nothing.

MT: The Amiga was, and still is, exceptional for its price/performance in applications that require video output. This is an area that we wish to extend in capability and expand into non-video applications. Improving the price/performance will include the current technology at lower prices and higher performance machines at the same price. I do not see that there is a huge market for high end PowerPC based Amigas, they would be bought by only a small number of power users, there is the scope for a low end PowerPC machine in the next couple of years however.

This is what Petro Tyschtschenko, the boss of Amiga Technologies told AUI.

The current situation?

Our Amigas are in good shape. VISCORP has signed a contract between the trustee (Receiver) to take over all existing intellectual

properties and inventory.

Our order intake is OK and we are continuing our business as usual.

The A1200 and the monitors are our current best sellers. The A4000 Tower is also very popular.

VISCORP in Chicago is at the moment strategizing to develop new products and an upgrade for the OS, and I'm sure that they will come out as soon as possible with an announcement.

Are you going to stick with the Amiga?

Yes, I will stick with the Amiga. As you may know, I brought to Escrom the Amiga deal and I continue to save the Amiga, because I brought in VISCORP and the new deal is finally successful.

I'm still convinced that the Amiga technology and our smart operating system are the best existing technology for TV set-top boxes and TV linked accessories. I'm sure that we will have a great future going into the new TV-related products and maybe my dream is coming true,

as I mentioned before in several speeches that the Amiga technology will be available in millions of households.

I'm still convinced that the Amiga technology and our smart operating system are the best existing technology for TV set top boxes.
Petro Tyschtschenko

So these are the views of five influential people in organisations of the kind whose decisions will be life or death for the Amiga plus the boss of Amiga Technologies. VISCORP has too a great potential for influencing the future of the Amiga but without the support of these and others whose professional life is bound up with the Amiga, it will certainly cease to exist as a viable computer.

What they have said indicates that they do not intend to desert the Amiga and they all express a measure of cautious optimism. That alone should give all of us some hope that there is life in the old machine yet. **AUI**

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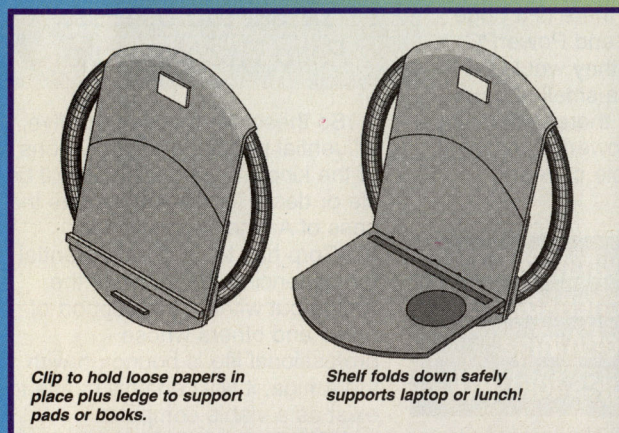
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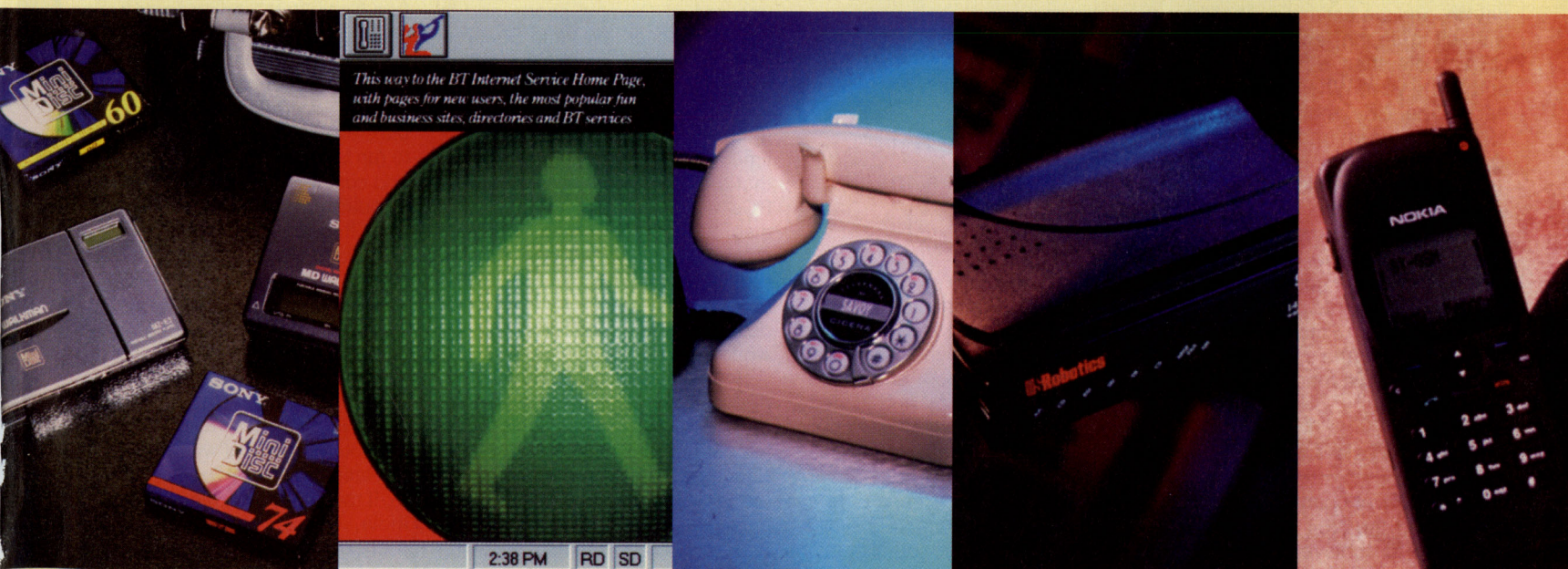
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This TechnoWorld

52 Joe Gene Parris, *AUI's* US correspondent, reveals the growing problems facing the multinational manufacturers as they try to market a product that they fervently hope will keep the merry-go-round of consumer electronics turning. **55** Martin Witton touches all the innovative bases and picks up the novel home runs in the ever entertaining TechnoWorld. **58** Getting into the money business may-or may-not be your route to a rich future online, reports Anthony Mael. **66** The road to success is littered with failures... This month David Ward recounts how some of the one time wonders of the compression systems fell by the wayside. **68** The battle between Motorola and Intel hots up in the latest episode of Simon Goodwin's definitive series on chips, the little things that mean so much.



This TechnoWorld... AUI - Boldly going where no Amiga magazine has gone before.

Not The **NEXT** Big Thing?

Joe Gene Parris, AUI's US correspondent, reveals the growing problems facing the multinational manufacturers as they try to market a product that they fervently hope will keep the merry-go-round of consumer electronics turning.

Electronic Boutique - a chain of computer and games stores in the USA and now in Britain too - is selling the Sony Playstation for the special offer price of just \$99. So for about £60 the "lucky" American gamesplaying public can buy a console that came out less than a year ago originally priced at around £250.

A colleague in the Media asked me why there had been such a fall in price for what is apparently the most successful "home" machine in the world. "And what's happened to DVD", he asked, "wasn't that supposed to be the "Next big thing?"

The answer to both questions, if not precisely the same, is surely connected. Sony is not only the creator of the Playstation, but also one of the originators of DVD. And having seen off the previously launched Sega Saturn by out-selling it at a ratio of nearly eight to one, it is desperate to pre-empt the next challenge for home games market domination from the once all-conquering Nintendo.

Nintendo have brought their new console, the N64, to the Japanese market with the usual long queues of fanatics wanting to buy the latest device, and are estimating that they will sell in Japan, and soon in the USA, more than a million by the end of the year. Whether it will appear in the UK before the end of 1996 is unknown and probably unlikely.

These figures, and the apparent explosive response to the 64-bit console by the Japanese games playing public have terrified Sony who have barely got the sales of the Playstation into seven figures and see their machine being pushed out of the market almost before they have made any money out of it.

Wish List

Yet whatever quantities the Playstation and the N64 sell, they are not going to achieve anything like

the millions of consoles that Nintendo and Sega sold each year in the late Eighties and early Nineties. Then, the hand-held 8-bit electronic "toys", and the later 16-bit ones, were on every subteen-age kid's birthday and Christmas wish list. That "one in every kid's bedroom" scenario was what Sony,

merchandise, have now dropped them. The fad seems to be over.

Whatever the reasons, and there are many, including the absurdly high cost of cartridges, the increased age and the "seen it, done it" attitude of the generation that played with those hand-helds and the far higher amounts midteenagers would

market. For Sony has learned what Sega and Nintendo once knew, that cheap hardware can sell expensive software. They can cut the price because they are hoping that if enough machines are sold, the players will buy the software on which Sony can make money, which is the way that Nintendo and Sega used to work.

Exclusive Software

Three years ago Sony bought the once Amiga and Liverpoolian based Psygnosis software company in order to get them to create games for the then planned Playstation. Now Psygnosis is being bought back from Sony by the far-seeing management team of Jonathan Ellis and Ian Hetherington, creators of the first British Amiga game Brattacus. They possibly see that the confinement of an exclusive relationship with a fading Playstation will not stand them in good stead in the uncertain future. Also Sony no longer need their own exclusive software company because all the games companies are eager to create Playstation software and pay Sony for the privilege. "Getting some games out before it's too late", one games house boss told me grimly.

As with automobiles, it takes years and buckets of cash to design and manufacture the complex electronic machines required to run today's games. The time scale and cost that complexity brings with it means that the next generation after the N64, if there were to be one, would be three or four years away.

Can anyone seriously think that into the next decade, with Net-style communications linked with the 100 million or so PCs that will then be selling annually, there will be the worldwide sales of another games console of the kind we have had in the last ten years?

It might happen, say, in China or India, where the populace would probably welcome a Vic20, but not



Not The Last Big Thing: Whatever happened to CD Video?

Nintendo, and Sega dreamed of recreating with their new and much more expensive 32 and 64 bit machines.

The public acceptance of electronic games seems to have undergone a major and perhaps permanent change.

Predictably, because nothing is ever the same and history rarely repeats itself in exactly the same form, that didn't come about and probably won't either. Sony and Nintendo may sell a million, or even two, but the public acceptance of electronic games seems to have undergone a major and perhaps permanent change. Supermarkets, which used to carry racks of Nintendo

now require parents to spend on such "toys". It could be the demands on the parental wallets of the upsurge of Olympic sports and in the UK, soccer fever and Shearer-type shirts, but electronic games have become just another minority early teen hobby. They are no longer the compulsive requirement of time, attention, loyalty, and money that they once were. The spread of PCs and even the Internet have also brought electronic activity a much greater scope and pushed gamesplaying into a position of being merely one more facet of the developing information technology world.

In the view of some industry experts, the Saturn, the Playstation, and the N64 are the last of the "dinosaurs" of their kind. Hence the desperation of Sony to defend its leading position by savagely cutting the Playstation's price before the feared N64 can grab its weakening

in the developed world. Certainly not in Japan, the USA, Europe, even Korea, where the big markets are.

CD-ROMs already outsell cartridges three to one. When the possibility arrives of not buying, but using entertainment software on those upgraded PCs or cut down NCs, who will need dedicated games consoles? That's why Sega, Sony and Nintendo are so desperately battling away in the final end of century shoot out.

Electronics Saviour

"But what", I hear you cry, "has all this to do with the DVD, supposedly the saviour of the electronic industry?" The saviour of the electronic industry? Why should such a fast growing industry need a saviour? Not only are consumers stunned and confused at the speed of recent developments, but the industry itself, or rather the companies within it, have been unable to deal effectively with that speed of change. They are stumbling over their own feet as they attempt to outdistance the competition. Incessantly cutting prices and increasing power.

The trouble is that it takes quite a long time, even with the most enormous hype, to persuade the public to accept a new technology, which itself takes a long time to develop. There are some, a relatively few, "early adopters" who will grab up the latest "big thing", but the general public as a whole do not see the need to trade up their electronic gadgets with the alacrity and frequency that the companies who produce the products would want them to.

It took 50 years or so for radio to spread globally, some 25 years for television to make it big, 10 years or so for CDs to be accepted,

about 7 years for VCRs to reach a large proportion of homes... Computers? They are still not a part of everyday private life for by far the greatest part of the world's population, even in the richer countries

Those companies have to bet - sorry, invest - huge sums of money to get into the fight for market share of whatever gadget is to be the "the next big thing."

True, the time scale of acceptance may be reducing, but it's still too long for those companies whose future depends on a radical change in public use of some electronic device every few years. And those companies have to bet - sorry, invest - huge sums of money to get into the fight for market share of whatever gadget is to be the "the next big thing" and they want that money back - and quickly.

Development costs are enormous and can take years to recoup, and even once developed there is a need for a continued R&D and marketing spend to keep the product ahead of the competition and satisfy what the experts believe the public is likely to demand.

Obsolescence

Very often this myth of public demand fuels development that the public would be quite happy to do without, for they would be content to go on using the product they already have. However, we live in the 'Obsolescent Society' where disposal of the old, even if it is perfectly adequate for present needs

and still usable, is an absolute necessity for the companies that are selling the new.

Most unprejudiced outsiders would say that the powerful PCs of today are more than capable of offering the consumers what they need. CD-ROMs provide huge storage space compared to what was available in the recent past, as do the now amazingly cheap gigabyte plus hard disks. Yet the fierce competition means that video has become a prerequisite of the PC, and video demands ever greater storage space. The technology of the conventional CD-ROM does not permit its easy expansion, so a new format was required. Hence DVD, especially for movies. A new format? Great, that will get the public buying something new and the industry can get onto that dizzying growth spiral again. Ah, if only life were that simple...

DVD - Digital Versatile Disc, as it is now denominated, though it began as Digital Video Disc and may yet return to that title - was due to reach the market this Autumn. September was to be the launch date for the first systems, which were straight entertainment sets intended to be, in effect, superior VCRs, though without the VCRs capacity for recording. Just a playback device with a mere 5 gigabytes of storage space to allow for a full feature film and a bit more on a single disc.

Film companies thought that the quality of the performance would be so much of an improvement over the video cassette that the public would rush to buy disc-based movies rather than rent them out. That would bring the film companies much higher profit margins than the poor reward they get from the video rental companies for their movies.

Format Wars

The manufacturers had learned their lessons from the format war of the Seventies when Sony fought without success for its Betamax system against Matsushita's VHS. That was why Sony and Philips agreed to toe the line on standards last Summer though they are reputed to earn some £300 million a year from their audio CD patents, and previously hoped to get the same returns from their own standard for DVD. They took the cautious view, some percent of something is better than a possible no percent of nothing.

To save the battling, and to ensure a smooth launch of DVD,



Not The Last Big Thing: Whatever happened to consumer Digital Audio Tape?

they gave way. Now the divisions have risen again, with Sony and Philips clashing with the rest over licensing arrangements for DVD. And there are other problems too, maybe even more serious ones.

Sony and Philips, perhaps irritated by the delays that have taken place largely due to the divisions last year, have started licensing their patents for DVD separately from the rest of the industry, which has infuriated the others involved who had hoped to establish a single collective licensing process.

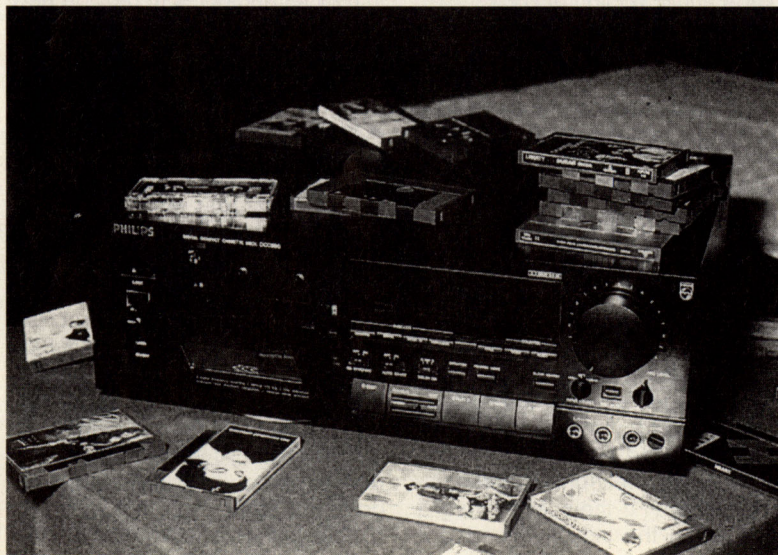
Because of these copyright problems there will probably be no software to go on the DVD players even if they were produced.

This has caused accusations of mutual deceit and is unlikely to help the unity of the industry who face a possibly even bigger problem.

This problem, or rather problems, arises through the copyright requirements of the film and the computing industries. These difficulties, which were supposed to have been settled months ago, are proving to be substantial obstacles, particularly in view of the DVD manufacturers urgent need to complete machines to get them to market in the time of the year when the biggest part of sales are made, the Christmas season. Yet owing to these copyright problems there will probably be no software to go on the DVD players even if they were produced.

"It's a mess", one electronics company boss commented. "There's no point in our bringing out hardware unless there's software for consumers to buy, but we don't know when that will happen."

The copyright problem with the movie industry evolved due to



Not The Last Big Thing: Whatever happened to Digital Compact Cassette?

plans to launch an advanced version of DVD in 1998. It will have a recording facility, and this caused Hollywood to shriek with alarm about pirates duplicating thousands or even millions of near perfect digital copies of TV broadcasts or illegally procured films.

The film studios forced the DVD manufacturers to accept certain concessions earlier this year, including one that there should be different formats of the discs sold in various parts of the world. This, they thought, would offer them some protection.

DVD-ROM

The computer industry complicated matters. While one version of DVD was only intended for entertainment and could legitimately restrict the use to simple playback, the computer industry intended to use a version called DVD-ROM. These would, as with all computer activity, require a facility for flexible copying. You can imagine that idea didn't go down too well with the frightened movie people. A flexible copying facility? That's just what they didn't want. Never mind that the whole point of computing is the ability to store and reproduce data. Copying perfect DVD data? Get lost, you encourager of pirates, you!

The three different industries have been fiercely negotiating for months without any agreement being reached. The electronics industry last month offered a compromise scheme, but has not yet received a response from either of the others.

The original September launch date has now been abandoned, but Matsushita, Toshiba, and Thomson of France still hope to bring out DVD entertainment systems before the end of the year. They could, in theory, launch DVD without a copyright agreement on a limited range of software that they could produce themselves, but such an independent launch could well infuriate other manufacturers and endanger the longer term prospects of DVD.

While most manufacturers are already geared up to produce DVD machines - they spent heavily on R&D in the early Nineties - the film studios haven't yet really got their technology together for the creation of the software. They too, are aware of the key Christmas market factor when, if DVD is to make an impact and achieve sales enough to draw the public, it must have both hardware and attractive software available. If the arguments over copyright go on much longer



The Next Big Thing: What will happen to Mini Disc?

the DVD manufacturers will face an interesting but unpleasant choice: either launch in the weaker pre-Easter period or delay the launch until the last quarter of 1997. A whole year without any return on their investment. Ouch!

They hope that DVD will have the same effect on the video market that the audio CD had in the late Eighties on the hi-fi equipment sales.

Overtaking Change

The main problem for them is that as time passes so too does the window of opportunity for DVD. The electronics industry sees DVD as the only big product to revive the flagging appetite of the consumer for major spending on electronic devices. There are, according to industry observers, no new electronic products under development that have such a strong sales potential as DVD entertainment systems. They hope that DVD will have the same effect on the video market that the audio CD had in

the late Eighties on hi-fi equipment sales.

Yet even with this new technology they have the threat of change overtaking them. Fujitsu are leading a consortium, including (surprise, surprise!) Sony and Philips - that is now finalising plans for a more expensive version of DVD with twice as much memory capacity and it is intended to be launched late next year.

Yet another complication will be that after the electronics companies have settled their copyright disputes with the film and computing industries, they will have to take on the music industry over the launch of the audio version of DVD.

Now that will really be a battle with lots of loud noises too.

The bind in which the whole sector finds itself is that the recent past of the market has been based on smash hit sales of some new device. That applies in the games market as much as in the more general sales of electronics. However, in very recent times, the only competition has been on price; not on new ideas. One industry financial adviser commented that the industry badly needed a successful new product to stop the vicious "competing for market share solely on price" circle.

And an electronics company boss added "If there ever were a time when the industry needed a

hot new product - it's now."

Like bringing a horse to water and not being able to make it drink, the DVD might be a hot new product, but getting it to market and making the public buy it is not an easy task. As with games and the desperation of Sony and the others to squeeze out profits from a possibly dying format, the DVD saga rests on the assumption that there always has to be something new to tempt the buying public. Although, in general, it's not the public who want the change from what they already have, it's the need of the industry to sell, to create markets, to make profits so that it can invest in new technologies to provide new products - that the public will have also to be persuaded to buy.

Do we need or even want all these new electronic products, are they - the N64s, the DVDs, even some PowerPC Amiga - really what makes life worthwhile? SHHHH! Hush your mouth! That's not a question you are allowed to ask! Because if too many people asked that question and thought carefully about the answer, the whole basis of the obsolescent society in which we in the developed and market-driven world live might just not survive the thought. No, no, the corporations insist, there's got to be a next big thing, or the whole merry-go-round stops. And that would be terrible, just terrible, wouldn't it? **AUI**

WHAT'S NEW?

Speak and Be Seen

One of the problems with video conferencing is that unlike real person-to-person or people meeting, it's not obvious who is doing the talking. A US-based company called PictureTel think they have solved that difficulty by creating a voice-activated camera device that automatically zooms in on the person or persons speaking.

The device has four internal microphones that locate incoming sound waves. An algorithm calculates the arrival time of the sound waves at each end of the microphones to work out the angles at which the camera should pan, tilt, or zoom. A voice processing circuit distinguishes human voices from any other sound.

PictureTel says it is able to track the position of people as they move around during the meeting. If more than one person is speaking - which generally happens at meetings when I am chairperson! - the camera adjusts its pan, tilt, and zoom angles to include all the relevant people in its view.

If you want to be the star of a talkie, contact PictureTel in the UK on 01753 673000

See What is Written

Concept Systems say their new Tieman TVi reading aid can be used with any television set so it is ideal for anyone who has poor sight and wants to read print off other objects. By using the hand-held mouse and camera, print can be magnified up to 27 fold. The device's autosensing technology is claimed to allow partially sighted people to read all types of material.

Concept say it optimises the contrast of the picture and enhances the readability of low quality text and then transfers it to a TV screen. The Autosensing aid is operated by a button on a hand held camera. The TVi is light and portable, and its versatility is said to permit difficult to read items, such as medicine bottles, to be magnified easily. Registered charities and visually impaired people qualify for zero rate VAT.

Ads Stack Up

Greenway Ltd., a company specialising in broadcasting, have told **AUI** that they have been appointed the UK distributor of the new ADT MPEG-2 ad insertion system for

Martin Witton touches all the innovative bases and picks up the novel home runs in the ever entertaining TechnoWorld.

companies who broadcast advertisements, but need to keep them easily on disk and quickly accessible. The basic configuration of the ADI MPEG-2 system is a 4.2Gb hard disk, providing up to five hours of storage, which is equivalent to thousands of advertising or short segment spots.

The system can be upgraded in multiples of 4.2Gb by daisy chaining additional drives using Fibrenet links.

The Pentium-based system, say Greenway, replaces tape cartridge machines with magnetic disk drive storage. Internal digital switching and frame buffering is claimed to allow instant and random access to the required clip. Segments can be played, based on the time of day, duration, manual initiation, or cue tone.

TechnoQuote

The system can be upgraded in multiples of 4.2Gb by daisy chaining additional drives using Fibrenet links.

As each system is custom-built to suit the intended application by clients, prices vary dependent on requirements.

Contact: Greenway Ltd.
Tel. 01635 528700

Multimedia Sex and Death

Described as "a whole new way of presenting music", 'Sex and Death' is a new CD-ROM/CD-Plus disc from Factory Records' artists, the Durutti Column. The disc includes ten tracks of 44MHz red book audio with the remaining megabytes (about 25%) taken up with the digital information making up the "virtual sleeve notes". About six hours of on-screen information is included on the CD, made up of text, images, performance, and documentary video, available on CD-ROM for Mac or CD-Plus for the PC.

The CD-Plus format also plays the audio tracks on a conventional CD player as the digital image data held on track 1 is skipped automatically.

For those techies who would like to know how this miracle of new technology was created, it was built by Multimedia development company The Boot Room. They used Macromedia Director and C++ and Metroworks Code

Warrior. Kodak PhotoCD scanning was used for the stills production with retouching in Adobe Photoshop and graphics were created in Illustrator. Get hold of all those useful tools and maybe you could create your own "new way of presenting music".

Versatile Scanner

US company Ultima Electronics Corp. have combined two technologies to develop "a new concept in a scanner". The scanner has been combined with a CD-ROM type loading mechanism to produce a miniscanner, or ScanRom. Designed to imitate the CD-ROM drive, the ScanRom fits, Ultima claims, into any PC system.

Marketed under the Artec brand, the ScanROM has been designed to scan photographic prints or slides and can be installed into a 5.25" floppy drive bay. It can also operate as an external device.

The ScanROM can scan up to a 6x4 inch photo, with a claimed maximum resolution of 3,200dpi. The ScanROM is compatible with Windows 95 and comes bundled with MediaHouse and PhotoStacker Pro software.

Contact: Ultima Electronics
Corp. Tel. + 886 2788 5657

TECHNO GEO

World Guide on CD-ROM

World Guide (price £50) is an annually updated database which is available on CD-ROM. It contains statistics and texts about 247 countries and regions in the world. This program allows users to select, analyse and present statistical data using a number of different tools. It will also allow export of all data, graphs, maps, and so on to any word processor or DTP program.

Users can select the country or group of countries they want to study in three different ways. These are from a map, by zooming in over any region of interest and selecting countries by pointing and clicking the mouse; from alphabetical lists, by selecting specific countries or all with a single click of the mouse; or selecting countries by value on one or more variables.

World Guide contains time sequence data for over 200 variables divided into twenty-one sta-

tistical subjects. Information is available for every variable in the database - data source, statistical year and, where needed, comments and explanations on how the variable was calculated.

World Guide also contains hundreds of articles on current international and foreign issues. A detailed map of each country is supplied in the database and the user interface is available in different European languages.

Contact: Microinfo Ltd.,
P.O.Box 3, Omega Park, Alton,
Hampshire GU34 2PG
Tel. 01420 86848

Hitch Hike through the Universe

RedShift 2, the successor to the award winning 1993 desktop planetarium from Maris Multimedia, is said to have been created with the help of hundreds of expert - and cheap - Russian programmers. The program explains astronomy using narrated 3D animated tours to 200,000 stars and 40,000 deep sky objects.

RedShift 2 claims to offer users the opportunity to "hitch a ride through the solar system" aboard a comet, witnessing the birth of a star on the way, investigating the surface of Venus, or to travel back in time to view the night sky as seen by the pharaohs of ancient Egypt. Maybe even take a look at that moment when life was alive on Mars.

Computerised Ordinance Survey

Every local, police, and national park authority in Britain is set to benefit from one of the biggest contracts ever negotiated with Ordnance Survey. Under the deal, expected to last 3 years, more than 500 authorities will get access to an extended range of highly-detailed maps and computerised data. This includes a copyright licence covering most users of the material, and a database that is claimed to locate the precise position of any postal address within seconds.

The Ordnance Survey maps are, according to Bill Bryson - US best-selling travel author - one of the great advantages of living in Britain. He recently wrote a book about his travels using the Ordnance Survey maps in the UK where he had been a resident for many years. Odd, isn't it, that he has now returned to the USA?

TECHNO COMS

Double Bill

It's good to talk to other companies, especially if they have something you need. So BT have been getting on the phone to Microsoft to seal a deal for the two companies to market networking and on-line services to small businesses.

Two years ago BT won a multi-million pound contract to develop a data network in Europe and the Asia Pacific region to distribute the US company's on-line information service. The new initiative will involve BT's direct sales channels and a group of Microsoft's approved dealers.

TechnoQuote

Will we soon see the verbose Billy Connolly with the nerdish Bill Gates?

BT and Microsoft sound like a formidable combination. Will we soon see BT's Bob Hoskins' replacement, the verbose Billy Connolly, with the nerdish Bill Gates in joint ads advising us all that it's good to talk to billionaires?

BT has a Voice

BT have been taking advantage of their own cheaper international calls to make all sorts of global contacts. Now there is news that they are working with International Telecom Japan to add voice services to the data services they are already providing in Japan.

The UK and Japanese companies will offer the new services through Concert, the global super-carrier joint venture between BT and MCI of the US. MCI distributes Concert services in the Americas while BT has responsibility with local partners for the rest of the world, and it seems they are finding them.

The voice services to be provided by BT and ITJ will, they say, involve virtual networks, a technical development giving customers the benefits of leased lines for the cost of public switched calls.

Phone Calls on the Internet

Making voice calls over the Internet is said to be a cheap but a cumbersome procedure that requires both ends to use PCs, pre-arrange the call, and use the same software. (Not that youngsters seem to have a problem. It is the parents



Is it good to talk for you or just for BT?

though, who report increased telephone bills as a result of hooking up to the Net).

IDT, based in New Jersey in the USA, has come up with an idea to eliminate the so-called hassles by allowing the person receiving the phone call to use a conventional telephone. (Now that will really please the parents!) The Net2Phone system allows voice data to be carried over the Internet's packet switching network until it reaches IDT's US telephone infrastructure. There the signal is converted to the 'circuit switch network' used by telephones, allowing the signal, they claim, to

be received by any phone worldwide. A call from overseas to the US costs using this system just 10 cents a minute.

A Beta version of the system which allows users to call any US based 800 and 888 numbers can be downloaded from Net2Phone's home page.

Converging Communications

The Institute for Public Policy Research has published a booklet entitled "Converging Communications, Policies for the 21st Century".

The publication investigates how, as technologies converge, information and communications will become ever more important to the exercise of power and democracy. The IPPR has conducted a major study of key issues in media and communications for policy makers and includes consideration of "communications entitlements in the digital age" as well as the vision for the 21st century.

Key recommendations by the authors include: easier consumer access to digital broadcasting; a single regulator for media and communications; access to communications as a right of citizenship and the building up of Britain's audio-visual industries.

They conclude that "The basic entitlement to self-expression and to the means of communication must be guaranteed regardless of the economic power, education and position of the individual". All in favour of that say "Aye". Passed unanimously. Price £4.95. Published by IPPR, 30-32 Southampton Street, London WC2E 7RA. Tel. 0171 470 6100

Phones for the Deaf

A new generation of telephones are being designed for people with hearing disabilities. Researchers at



Speaking - old style communications on the Info Superhighway.



The modem - the cause of all this Infobahn fuss.

BT - yes it's them again and this time doing something useful - and the University of Essex are working on a system that will enable, strange as it may seem, two deaf people to use sign language over the telephone.

The system uses a desktop computer equipped with a video camera and gesture recognition software. The latter is used to store a database of sign language as visual images. A deaf person sits in front of the computer and the camera records their signings, which are digitised and read by the computer by comparing them with the stored images. The information is then transmitted by phone and the signings displayed on the second caller's PC screen.

The system is as yet not commercially viable, but less sophisticated systems are already in use such as BT and the Royal National Institute for the Deaf's Typetalk where the spoken words of the caller to a deaf Typetalk subscriber are typed by an operator. The words then appear on the special Textphone which has a LCD screen and keyboard. The deaf person replies by speech or by typing a message which can be read by the operator to the caller.

Global One

Deutsche Telekom, France Telecom, and Sprint of the US have launched the world's third global telecoms alliance forecasting sales of \$5 billion - £3 billion - by the year 2000. The alliance, called Global One will offer clients around the world a new range of services according to the telecomms companies. "Global One is going to

offer customers communication to the world through a single point of contact, a single global network that is state of the art technology", said William Esrey, chief executive of Sprint.

"It will focus on three segments of the international telecoms market: worldwide voice, data, and video services for corporate clients; international consumer services, such as calling cards and international transmission; and support to other international callers."

Electronic calling cards are said to be the latest gizmo in corporate relations. No more bent-cornered visiting cards, which you can never find when you need them. Just create your card electronically and it's there on the Net whenever you need it. From such small things are huge financial rewards created - or so the telecoms giants hope.

TechnoJoke

New Virus

There is a new virus around. This is the Government Policy virus. This virus is known to be present when nothing works, but the software keeps saying everything is marvellous and you should feel good about it.

Switched Off

Prostitutes who advertise their services in telephone boxes are to have their phones cut off in an attempt to rid city centres of their calling cards. (Bang goes your lunchtime treat, so to speak.) And doubtless the telecoms companies won't be too keen on replacing this

particular kind of calling card.

Incoming calls to "sex for sale" numbers will be barred by engineers operating under new rules agreed by the main telecommunications companies. The cards appear in the telephone boxes, especially in central London, courtesy of 'card boys' who are rented by the prostitutes who pay around £10 for every 100 they put in boxes.

Unfortunately the rule about barring, sorry barring calls will also apply to taxi drivers, window cleaners, and other small businesses providing useful services that employ this innovative form of advertising.

BT got fed up with clearing the telephone boxes, sometimes several times an hour so increasing the card boys chance of income), after pressure from Westminster Council, so decided to take these new measures. They will act as clearing house for other companies whose numbers are advertised.

The calls will be logged on computers and when they appear more than eight times, letters will be sent to subscribers (Asking them how much and whether they also find it good to talk?). The offending ladies - or gents - will be given a week to explain or promise not to continue the card service before another letter is sent threatening to cut off incoming calls.

Isn't this a strange country? We pay attention to cards stuck in telephone boxes attracting fairly harmless sexual activity, yet we pay no or very little attention to the homeless sleeping on the streets often right next to those same boxes. The ex-nationally owned BT makes something like £100 a second profits and worries about a few hundred prostitutes advertising their services. Yet beggars are growing in numbers in our cities and social security is being reduced. As we said, strange place, this country

Mobile Fraud

Police forces and the Home Office are testing new equipment to help them tackle mobile phone fraud. The device enables the police to identify on the spot whether a phone has been stolen or re-programmed with the electronic identification codes of another cellphone user, a practice called cloning.

Suspect phones are placed inside the screening device in a metal briefcase which contains a computer that carries out technical tests. The screener identifies the phone number and electronic serial number of the phone and displays them on an electronic panel on the outside of the case.

Police officers can then contact the network provider company which provides connection to the mobile phones to check the two numbers are assigned to the holder of the phone. **AUI**



It's good to talk with your computer/phone, Nokia-style.

The **Online** Column

Cash in on the Net

Anthony Mael discovers that you can set up your own bank, get your name on the Kremlin wall, join the electrical Mormons in Salt Lake City, and send out messages to lots of different computers with some hot as hell new products.

Do you have a million dollars to spare? Or even a million dollars to invest? How would you like to own a bank? Just remember, as the late Bernie Cornfeld - a financial manipulator of billions - said, "If you want to get rich, don't horse around with steel or light bulbs, get into the money business." And you can, it is being predicted, make your fortune too if you start a bank on the Internet.

According to a recent survey by management consultants, Booz-Allen & Hamilton, the market for Internet banking is poised to grow sharply in the next three years. So that's going to threaten the traditional banks who, at present, enjoy a competitive advantage in all the ways we are used to dealing with our accounts.

Booz-Allen's survey found that 154 European banks already have pages on the World Wide Web, with sites increasing at nearly 90% per year; which is not surprising as they would have begun at a very low base, or from virtually none at all.

However, the use of these sites is growing fast and almost all the banks have plans to upgrade them and the services they offer.

At present, what seems to be on offer is mostly little more than a glorified brochure giving information on the bank's services and other marketing information. Yet more than half of the banks surveyed planned advanced Web sites within a year, offering full banking services.

Why the gadarene rush on-line for banks? Is it just another example of conventional businesses leaping onto some fashionable technological bandwagon? In this case, it's not quite as simple as that. The survey found that the average payment transaction on the Internet was far cheaper than carrying out the same transaction through traditional procedures. A transaction costs, according to the survey, \$1.08 at a bank branch, 54 cents for a telephone banking operation, 26 cents for a personal computer banking service using the bank's own software, but a mere 13 cents for the same transaction using the Internet. No wonder the banks want to get into the Online world.

"The cost advantages are so huge", says Michael Berger of Booz-Allen & Hamilton's financial services team, "that there would be no reason not to try it out."

Yet within this apparently interesting way of saving money for banks, there lies the threat. This comes from the cost of setting up such a service on the Web and the fact that if the traditional banks can create such systems, so too

can new kids on the financial block.

"Starting an Internet bank from scratch", comments another of the Booz-Allen & Hamilton team, Claus Nehmzow, "costs about \$1 million - you buy all the software off the shelf. But as a European dinosaur bank, you have to integrate it within your existing systems and that is where it gets expensive."

When this new bank rush takes place, the survey suggests that it will be easier for customers to pick and choose with whom they want to put their money and it will also be harder for banks to differentiate their Web sites from those of their competitors - who might turn out to be non-banks who can put together other financial services on the Internet. They could be such organisations as insurance companies and, ironically, their intervention might make the same impact on banking that the arrival of Direct Line had on the traditional car insurance market.

**Online services are
"unfriendly, cumbersome,
painfully slow and
inconvenient."
Is that the trouble?**

However, not all survey findings and the predictions that are based on them should be taken for granted as certain to come to pass. You might remember that over the last couple of years there have been many predictions that it's all up with the Marks and Spencers, Sainsburys, and Tescos. Online shopping was to be the big thing to do with the family budget. No longer was it necessary to wander dazed and impulsively grabbing along the baby-deafening, housewife-chattering, trolley-blocked aisles of the superstores. No, get yourself online, as the rest of world was reputed to be doing, and, hey presto! the goods were there and at your very door in just the time you swished through your golden credit card.

That prediction, like so many others since the soothsayer to Julius Caesar got it right that eventful Ides of March day, was less than accurate. According to another report, this time from a London-based retail consultancy called Verdict, efforts to develop electronic shopping are "floundering". Not only that, Verdict warns that "Electronic shopping will have no impact in the next five years and a minimal impact in the

next ten years." Ouch! Is that what the Online world was expecting?

The problem, says Richard Perks - appropriate name that - of Verdict, is Online services are "unfriendly, cumbersome, painfully slow and inconvenient." Is that the trouble? That's no surprise, some people would say it's a description that applies accurately to most of the services presently available on the Net.

Verdict evidences the problems with Argos, the catalogue chain, who sold just 22 items in nine months from its site on Barclaysquare, the UK's first "virtual" shopping mall. Others too have found the going slow and not very profitable in trying to sell through the Net.

Verdict does predict that the UK electronic shopping market will rise from £42 million last year to £55 million this. But that is peanuts compared to the overall £6 billion home shopping market and total retail sales in the UK of £160 billion.

It's interesting to see these two, if not exactly contradicting, surveys provide somewhat differing views as to the actual and potential of Net-based financial activity. A year or two back, the conclusion that Booz-Allen draw from the basic activity of the banks on-line, that the money business is going to boom Online, would have been similar to those of any organisations surveying the Argoses who were getting into the fashionable idea of electronic shopping which was to put all the corner shops and the super-markets out of business.

That, from the evidence of what is really happening, seems unlikely to come about. At least in the predictable future, if there is such a thing. The same may be true of banking on-line.

It's a little like the way that political polling organisations collect the views of all those ready-to-talk floating voters. Very often it turns out that the voter reveals that what they have said will fit more into the what they think that the pollster wants them to say than their actual voting intentions, if they have any at the time. In this case, probably banks feel pressured by the fashionable trend - and the apparent cost savings they can make if it all takes off - to say that they are going to leap ahead with their technology-based services and close up all those expensive and troublesome branches.

Can you imagine the view that would be taken of any senior executive within a bank who said "We think the whole Internet thing is load of codswallop and we're not going to put our or our customer's money into such a never-flying

turkey." They would come to his beautiful office and lead him gently off to the funny farm for a bit of financial brainwashing and re-education into the future of banking and the internationalism of money today on the InfoBahn.

And if he continued to maintain the same unfashionably Luddite viewpoint, probably bury him in the dung scattered floor of the barn. Now, is any banking person of career caution going to risk that?

However, it is not the banks who will decide the success or failure of Online banking developments. The banks will surely provide more advanced facilities which will, to some extent, be used. Yet it is the overall public acceptance of the idea of on-line banking which is what will make it work... or not. The Online public obviously have not found the shopping facilities so irresistibly attractive, and shopping would seem to be a natural for looking and buying through the convenience of one's own home screen. The reason may be that, in general, the public are far more reluctant to adventure into new technological territory than they are given credit for by the enthusiastic experts, or those who carry out surveys.

Still, if you have that million dollars loose change in your pocket, and want to put it into something that looks good (Would you like to buy an "antique" Amiga A1000?) You could challenge the banks at their own game with lower costs and more convenience for you and your customers, and you might remember what Bernie Cornfeld said. The way to make money is to get into the money business.

Just think for a start of all that green stuff lying in current accounts on which we get minuscule interest, and the travellers cheques that are paid for and not cashed in for months or years, while the financial organisations that issued them have the use of the money and the interest on it.

That's what banking is about, and banking Online won't be any different, borrowing cheap and lending dear. Although whether it will become a real threat to conventional banking and the future of our money transactions we all make, in spite of the surveys' predictions, is yet to be proved.

For a banking view on what just might come true, you could try the NatWest Electronic Markets 'Banking on the Future' project on www.botf.natwest.co.uk

Europe Online Offline?

Perhaps the first signs of cracks in the apparently ever advancing solidity of the Internet are appearing. First it appeared that the multilingual online service Europe Online was being put into jeopardy following the news that Burda, the German publishing group who had financed it, was withdrawing funding from the venture.

The Luxembourg-based company said it was holding talks at an 'intensive level' with new potential partners, thought to include CompuServe, the US Online group, and was engaged in a major restructuring process which would involve changes in shareholding structure.

Burda said it had decided to change its online portfolio and concentrate on Internet content production, particularly in the German market, and so had decided to stop current financ-

ing of Europe Online.

Now it looks like Europe Online is in serious trouble, for as yet no financial supporter has emerged and the whole service could just disappear if none emerges quickly. With so many service providers, small and cheap, large and expensive, offering clients entry into the wonderworld of the Superhighway, competition is bound to find its victims. At present, it appears that Europe Online may be among the first.

Pigs Will Fly

Pigs could soon be flapping themselves through cyberspace. The National Farmers Union is about to launch a new service on the Internet to provide a "one-stop" service of information and discussion for those in rural businesses.

The intention is to offer space for up-to-date market information, such as prices for wheat or pork bellies. (Don't tell me you are not into pork bellies - it's big business!) The Internet service may even carry a "Pig Discussion Group". Now there's a mind boggling idea.

Mark Thomas of the National Farmer's Union commented, "This is the medium of the future. We felt we need to get involved in some way." Oh really?

If you are thrilled by the idea of getting into the Pig Chat Line, you should be able to bring home the Cyberspace bacon sometime late in the Autumn of this year.

Chatting Up

And talking of chat, one of the original main purposes of Internet-style communications was to allow individuals to exchange ideas. This was often in the form of bulletin boards and other ways in which "chat" took place. When the paying online services came along it was possible, but somewhat expensive, to continue this kind of communication. There were still discussion groups and the famous news groups, but as the World Wide Web takes more and more of the activity of the Net, in some ways the individual chat communications seem to have become of less importance than the commercial activities.

Until recently, keen chatters had only one alternative to paying online services - Internet Relay Chat (IRC). This has been accused of being chaotic, public - anyone could join in, and somewhat frustrating unstable.

Some people are fonder of chatting than anything else on the Net. One enthusiastic chatter even had a professional set-up created in his sitting room so that he could spend hours online with other chat lovers around the world, even though it cost him a fortune to do it.

The whole idea of online chat is a somewhat peculiar one. Practically anonymous, you can sit and key in whatever "conversation" you wish

to other semi-anonymous solitaires out there in cyberspace. Isn't it more "normal" to communicate with real live beings in person? Perhaps not. For even when we read a book - if the nerdish chatters of this world ever do read books - we are in touch with someone else's mind, but not in person. And the chatters of cyberspace are at least in an interactive situation.

If you watch late night TV, you will often see adverts for telephone chatlines. "Get on the phone to fifty people you would like to meet" or even "Talk to those MEN you would like to know" which is intended for the Gay community. All at 39p a minute or so.

For the Online world such "chattering" is available also at some cost. And sometimes though you get opposition. Apparently a favourite Nerd's game is to use "bots" (robot software) to colonise a "topic" and crowd out all the other participants. This is the equivalent of a party taken over by yobs who grab the drink, switch the music up so loud that the neighbours complain to the police, and then start fights and throw chairs through the windows.

Perhaps the online chatters and their generally nocturnal meetings of minds are just a reflection of how like the whole of life that the Net is becoming. There are lonely people seeking soul mates, others who want to talk about their interests and have no-one who will personally listen to them, or those who feel isolated in the society in which they live. Commercial activities are starting to drive out this friendly amateurishness. As someone once said, "We get the government we deserve", we will doubtless also get the Information Superhighway we deserve too.

Happy Days

Bad news is good news, or so say the media in general. Would newspapers sell if they didn't serve up the diet of evil tidings day after day? Some time ago a BBC newsreader objected to the "bad news" emphasis of the news services. He was echoing the sentiments generally offered by "conservatives", not necessarily of the political party kind, who want the good news to be brought to the fore.

Unfortunately, as was once pointed out to someone who made the same point in my presence, no-one much wants to read about how well a dam is continuing to produce hydroelectricity at exactly the rate for which it was designed.

However, if you yearn for something to counteract the flow of info about dams breaking, you could get onto the Athens Institute's Positive Press on www.positivepress.com which has been "founded to counteract the tendency of the mainstream media to focus on the negative".

THE POSITIVE PRESS™

Good News Every Day™

Start spreading the good news.

The whole idea is to supply "good news every-day".

Perhaps the trouble with "good news" is that while bad news can be pretty general, hurricanes, train crashes, sudden deaths, and epidemics are understood and probably shared threats, good news may not appeal to all. If the England football team get beaten then that could be bad news for some, but in Berlin...

That's the difficulty with real life, it's more difficult to deal with than you would think, especially if all you want hear is Pollyanna stuff.

Union of Minds

You Can't Get Me I'm part of the Union.. went the song - which by the way, a certain political party, guess which, tried to get banned from the BBC. If you want to see what a part of the Union can do on the Net, at www.ibew.org you will find the International Brotherhood of Electrical Workers local branch in Salt Lake City in Utah, USA. It shows what even a small organisation can do having information for its members, a bulletin board and plenty of related links and other helpful stuff.

Drink Up

Of course Coca Cola is on the Net, but so is, in a slightly more original form, Pepsi. There is a special site for the activities of the third most drunk drink in the world - water comes first - in Russia. The Pepsi site is naturally intended as a marketing device for the recently blued can refreshment and, if you answer a few simple questions, you get to see your name in Cyrillic script on the Kremlin wall. As vodka goes reasonably well with Pepsi, we'll drink to that.

Fly By

One of the most agreeable airports in the world, with a myriad of excellent restaurants and very low priced duty frees is Changi Airport in Singapore. This go ahead place - don't spit, it



INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS

Above: Some bright sparks of the union.
Right: Children on the line.

could cost you a \$5000 on the spot fine - now has its own Web site.

If you want to dream of an oriental holiday, borne there on the best airline in the world with all those delightful smiling girls making you effortlessly comfortable, you can go to www.changi.airport.com.sg for the information on how to get it.

The site also has some clever animation in which the control tower moves slowly and, some have said, rather threateningly toward you. We thought it was the planes that moved, but in Changi, it seems, it's the air traffic control tower.

Child Cybersearch

A Canadian site is being welcomed for providing a useful service to help trace missing children. Child Cybersearch - www.childcybersearch.org - uses easily updated and searched databases to keep users informed of missing children.



If anyone finds that a child on that database appears, then the information can be relayed back through the Internet or by other more conventional means. It also ensures that information on missing children is quickly available to all the services, public, and organisational, who need to keep a watch for them.

Infernal Mess

If there is one thing sure about the Internet, it is that so-called the Information Superhighway is causing a huge complication in the technology world. The problem is that although the idea of a universal communications system accessible by a wide variety of machines sounds simple, it isn't easy to achieve. This is one of the reasons for the welcome that has been given to Java from Sun Microsystems.

Java is a programming language that allows coders to create a single program that can run on different systems. And, what makes it more valuable still, is that it can be distributed cheaply and easily over the Internet.

Java has been accepted and is supported by such luminaries of the InfoBahn as Netscape, Microsoft, IBM, Novell, and Apple. Javasoft, the Sun subsidiary company that controls Java, has now even announced that it is going to release a Java operating system.

The interest Java has aroused may have been what has instigated the creation of Inferno, a rival offering. Inferno comes from Lucent, the



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recent split off company from the USA's giant telecoms corporation AT&T. Lucent deny that the success of Java has had any influence on them creating Inferno, and say that they have actually been working on the operating system for over a year.

One key to the possible success of Inferno is that it is very small. The whole OS will fit into 1Mb which compares very favourably with Java, and particularly with such operating systems as Windows95 which demands 8Mb or more, preferably 16, to run successfully. This small size of Inferno means that it can be easily incorporated into the coming cutdown devices such as the NC, set-top boxes, or even games consoles. After all, how big is the AmigaDOS which is to be the basis for VISCORP's set-top boxes?

As with Java, Inferno has been designed to run across a whole range of computer platforms with other operating systems. Lucent claim it will be equally effective on Intel-based machines as on the PowerPCs from Motorola, which could make it interesting for forthcoming Amigas, if they arrive from VISCORP or any licensee.

If you are wondering what all this magic is good for, Lucent suggest an example of the kind of variety of reception that may be available according to the quality of the receiving machine. Take an interactive Internet-based shopping catalogue, they say. A user accessing the data through a standard modem, telephone line, and personal computer may just receive text and still pictures. However, if you have a cable modem which is much faster than an ordinary modem, through the cable network it would be possible to receive video and audio as well as the text and still pictures. If a user of a hand-held device tunes in then with a slower connection, it might only be possible to receive the text.

The key is that it all would have been sent from the same program and would not need separate programs for the different platforms.

Going into Limbo

Inferno is the operating system that Lucent are offering, but they are also providing a new programming language to go with it called

Limbo. They claim that the combination is superior to anything Java can give.

As with anything technological, it's not always the superiority of the product that counts, and Lucent may have a hard job in getting the Inferno/Limbo combination accepted over Java. Already thousands of programmers are working at creating Java-based applications. That level of activity, and the support it has from those major companies, gives Java a lead, if not in technology, at least in financial commitment which often plays a vital role in the success of a product.

It will be equally effective on Intel-based machines as on the PowerPCs from Motorola, which could make it interesting for forthcoming Amigas.

On the basis of joining them instead of trying to beat them, Lucent is saying that it will be happy to co-operate with Sun and let Inferno applications run on Java and vice versa. They are also saying that they will be able to announce within a few months those third party developers and hardware manufacturers who will be supporting Inferno, which is available at present only in a test version. Lucent say that it will be commercially released at the end of the year.

What is clear is that both Inferno and Limbo, Java and JavaOS, are the result of the confusion, the mess some observers have called it, that has come about with so many different systems trying to communicate over the Internet. It didn't matter so much when the discrete systems belonged to companies who could manage them with local area or wide area networks. They only needed to establish their internal compatibility. Yet now that computer systems, through the Internet, are going public and communicating with outsiders, it's altogether different. Some companies, as we have reported

before, are even using the Internet, through Intranets, as internal communication systems on incompatible platforms within their own companies. So the ability of programs not to have to take into consideration the differing standards is increasingly important.

Nightmares

Imagine a TV broadcast from the BBC. There isn't or shouldn't be any problem in receiving it on a variety of different makes of TV set. But TV sets don't all have different operating systems and are not controlled by varying programming languages. If they were, we would all have nightmares trying to connect our sets in such a way as to receive the TV programmes in a usable form. Either that or the TV programmes would have to be broadcast in a multiplicity of different formats.

The ability to create, send out messages - programs... applications - all in one format and get them read by all those different operating systems is the reason why Java has been received with delight by programmers and their companies who use the Internet. It's like that old analogy of petrol being usable, in general, by all cars, instead of their being many different incompatible kinds of petrol. Yes, there may be some differences, leaded or non-leaded, super and so on, but petrol conforms to the standards of cars. And that's what has to happen over the Net, otherwise the costs of creating scads of different programs all offering the same thing to a diversity of machines would make the whole thing impractical. This is especially true now that programs of greater and greater complexity are going out into cyberspace.

Hot Products

Whether Lucent's Inferno can overcome the already established lead that Sun's Java possesses, we shall await with interest to find out. We shall see which the Internet market chooses as the hottest product; Inferno, which Lucent apparently considers, to judge from its name, as hot as hell; or Java from Sun, and you don't get a much hotter object than the burning force that powers our solar system, do you? No doubt it will be a hotly contested battle for the universal language and operating system over the universal communications system.

Making It Happen

If you want to know how to make it happen, ask an entrepreneur - or his bank manager - how it's done. There is now a magazine on the Net that seeks to explain the miracle of those whose ability lies in creating and exploiting successful situations. The Entrepreneur's Mind on www.benlore.com offers case studies and interviews with successful entrepreneurs who let you into the secrets of making it happen when all about you think it can't and have given up hope that it ever will.

The site is sponsored by the Emerging Business Consulting Group at accountants Arthur Andersen who would unquestionably like to hear from other successful entrepreneurs to help them, the entrepreneurs, make their second, or third, multimillion. **AUI**

the Entrepreneur's Mind™

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Volume 1, Issue 4. August-September, 1996

Welcome to **The Entrepreneur's Mind**. The EM is a web resource that presents an array of real-life stories and advice from successful entrepreneurs and industry experts on the many different facets of entrepreneurship and emerging business. Every two months a new issue of the EM will present in-depth profiles of entrepreneurs and how they grew their successful companies, as well as interviews with industry professionals discussing an aspect of starting and growing a new business venture.



[Keynote Entrepreneur](#)

The founder of Bertucci's Italian Restaurants and mogul of Steve's Ice Cream discusses why the core philosophy of "taking the I have a dream..."

USING YOUR ED

**Kevin Bryan continues his coaching for command line learners.
This month he explains the customization of the Shell.**

In the August **AUI**, I promised we would have a go at sprucing up our SHELL a little and we'll do that by editing the Shell-startup file using ED, which is the text editor that comes with your Workbench. It's a little quirky to use and if you are one of those fortunate people who use something better, (almost anything) like CygnusEd or Gold Ed, then the bit about ed-backup will not apply to you, but the rest will. Enter the following:

```
1.> cd SYS:
1.> ed S:Shell-Startup
```

A new window will open up with your Shell-Startup file displayed in it. If a BLANK window opens up with the words "Creating new file" at the top, then you have made a typo in which case you should click the Close gadget and start again. Your Shell-Startup file should look something like this:

```
; $VER: shell-startup 38.13
(13.2.92)
```

```
Prompt "%N.%S> "
Alias Clear "Echo
***E[0;0H*EJ*" "
Alias XCopy "Copy CLONE "
```

This is a Workbench3 one, don't worry about it if yours is slightly different.

What we're interested in are those ALIAS commands. ALIAS allows you to abbreviate a command into something easier to type, or something easier to remember. For instance, to close down the SHELL you normally have to type ENDCLI or ENDSHELL or even, reach across the desk for the mouse and click the Close gadget.

Let's create a new command. Press the DOWN Arrow key and move the cursor down onto the A of the first ALIAS command and press RETURN to open a new line. Now press the UP Arrow key to position

the cursor on our blank line and type:

```
alias e endcli >NIL:
```

If you press RETURN a new blank line will be created, we'll probably add something else here later.

Now to save the file. Press the Esc key and an asterisk (*) will appear at the bottom of the screen. This means ED is waiting for you to enter a command, type x and press RETURN and your new Shell-Startup will be saved, the window will close and you'll be returned to the SHELL.

Remember, the Shell-Startup file is read whenever you start a NEW SHELL so our new command won't work yet so close down this SHELL and open up a new one to try out the command.

```
1.> e
```

There, if you've done everything correctly, e now means ENDCLI (the ENDCLI command still works too). Care to add some more? How about;

```
alias d dir
alias eds ed S:Shell-Startup
alias edseq ed S:User-Startup
```

Or for hard drive users;

```
alias lon lock DH0: ON
alias loff lock DH0: OFF
```

The possibilities are endless and fun.

Note: Every time you use ED, a backup of that file is placed in SYS:T called ed-backup so, if the above example went wrong at some point you can repair the damage by copying this file over the original e.g.

```
1.> type SYS:T/ed-backup
```

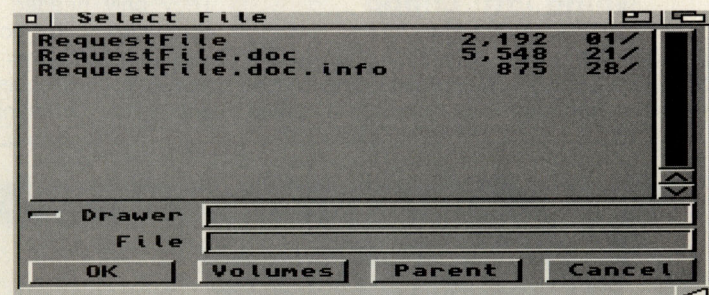
to check that it's the correct file, then

```
1.> copy SYS:T/ed-backup TO
S:Shell-Startup
```

Remember ALL files get called ed-backup so it might be better to make a backup of the file first, like we did last month with:

```
1.> copy S:Shell-Startup TO
S:Shell-Startup.bak
```

Are you getting fed up with all this typing yet? Here's a neat feature of the SHELL: Press the UP Arrow key a few times. See how all those commands you have been typing in have been remembered? If you want to enter a command again just press the UP Arrow key until it is displayed and press RETURN, saves a lot of typing.



Finally, here's a treat. Have you ever wanted to add a file requester to a command that doesn't usually have one? DELETE (to make the command safer to use) for instance. From Workbench3 onwards there is a lovely command called REQUESTFILE that has been added to AmigaDOS to spruce it up a little. It is designed to be used in script-files, but with an ALIAS we can use it to create DEL, the **AUI** safe DELETE command.

All you Workbench2 users will be delighted to note that there is a special Workbench2 compatible version of REQUESTFILE on this month's SuperDisk just for you,

courtesy of Simon Dick of the Amigaaholics Club.

To create this new command, edit your S:Shell-Startup with;

```
1.> ed S:Shell-Startup
```

and on a blank line type in this single line of text:

```
alias del delete `requestfile
TITLE="Select file(s) to delete"
MULTISELECT PATTERN=""
POSITIVE=Delete`
```

Note the ` character is on the key beneath the Esc key. Press the Esc key, type x and press RETURN to save your updated Shell-Startup file. If it all goes wrong, remember that your original Shell-Startup has been put in the SYS:T directory as ed-backup.

Open up a new SHELL to load in your new command and whenever you type DEL, you will be presented with a file requester so that you can select file(s) to delete. If you want to select more than one file, hold down the SHIFT key while selecting up to ten files. If you make a mistake click on Cancel and nothing will be deleted.

Read the REQUESTFILE docs to learn more.

Okay, that's it for this month except for one quick warning:

NEVER EVER protect the T/ed-backup file from deletion or there will be tears... I'll leave you to work out why. **AUI**



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ARexx Info

Creating Form-fill Applications using AmigaDOS Windows

Fed-up with using Pull and Say for collecting and displaying data in your scripts? Then pay attention as AUI's resident ARexx Guru Paul Overaa explains how to add 'form-fill style' console windows to your scripts instead.

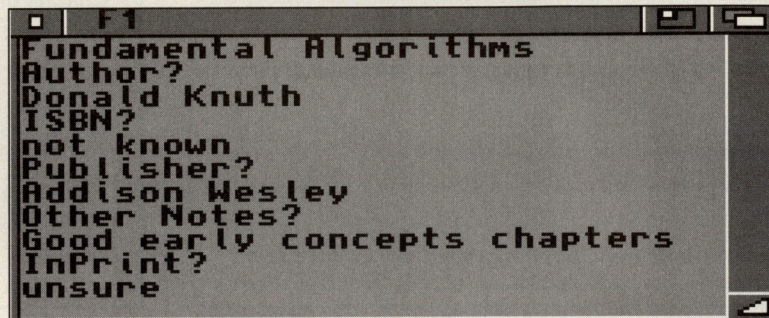
Many ARexx users tend to write stand-alone scripts using Say/Pull instructions which work via a conventional Shell window. It's easy, but the approach has a number of disadvantages including the rather primitive 'command line' style of user interaction. One way of improving things is to opt for collecting data using form-fill style displays, but in order to do this you have to forget about Say and Pull completely.

That Say always generates a terminal linefeed, and with a conventional Shell window Pull needs the Return key to be hit before the program takes notice of any input, makes it difficult to produce form-fill style front ends. The solution is to use ARexx's file-oriented I/O (input/output) instructions with a raw window, because this makes it possible to keep a constant check on which characters are being typed at the keyboard.

As far as opening a raw window is concerned it's easy - you use the Open() function in this fashion:

```
call
Open(window,'RAW:40/40/560/20
0/mywindow')
```

The second argument specifies the console type, top left position and initial size of the window. The first argument, which I've called window, is the file handle used for I/O operations. To write text strings



Using Pull/Say commands for your standalone scripts is a little archaic given the Amiga's otherwise excellent graphics capabilities.

into the window for example we would use Writch() like this:

```
call Writch(window, 'How
about that then!')
```

The corresponding input function, Readch(), needs a file handle plus a count of the number of characters to be read and to collect one character and place it in a variable called keypress\$ we'd write:

```
keypress$=Readch(window,1)
/* read character */
```

With an AmigaDOS raw window this function returns immediately a keypress is detected (and hitting the return key would generate yet another keypress that could be detected).

The console sequence needed to cause a change in cursor position takes the form: 9b [R] [3b C] 48. The first value, 9b hex, is known

as the control sequence introducer (CSI), R represents the display row and C the display column (the 3b hex value is a 'separator that allows the console device to distinguish between the two real row and column parameters). The brackets indicate that items can be treated as optional and this means that not only can either row or column positions be omitted but the 3b hex separator (which is an ASCII semicolon character) only need be provided when either both row and column values are given or when just a column value is specified. So a row position on its own can be moved by sending the three character sequence: 9b R 48.

One possibility for generating these sequences is to create a cursor controlling function that takes a pair of row/column co-ordinates and sends the appropriate command sequence to the console window. Of course it's possible to go one better than this and create a function that takes both the cursor position and the text to be displayed as function arguments thus allowing

ASCII Code (Hex) Chosen Action

- 0-7 Ignore these characters
- 8 Do a backspace and remove last character
- 9-19 Ignore these non-printing characters
- 20-7D Print normally
- 7E (~) Ignore this character
- 7F (delete) Ignore this character

Table 1: Make a note of the operations to be performed by the parser!

you to position and field names, write error messages and so on using statements such as:

```
call
WriteToForm(20,0,ERROR_
MESSAGE).
```

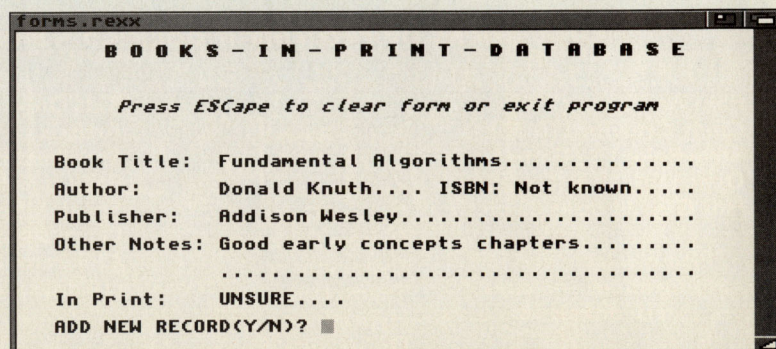
Collecting Information

Opening a raw window and creating a form by displaying various text items at particular places on the screen is easy enough, but to develop form-fill applications you also need to be able to collect and display keypress data at the appropriate screen positions. This is where things get more complicated.

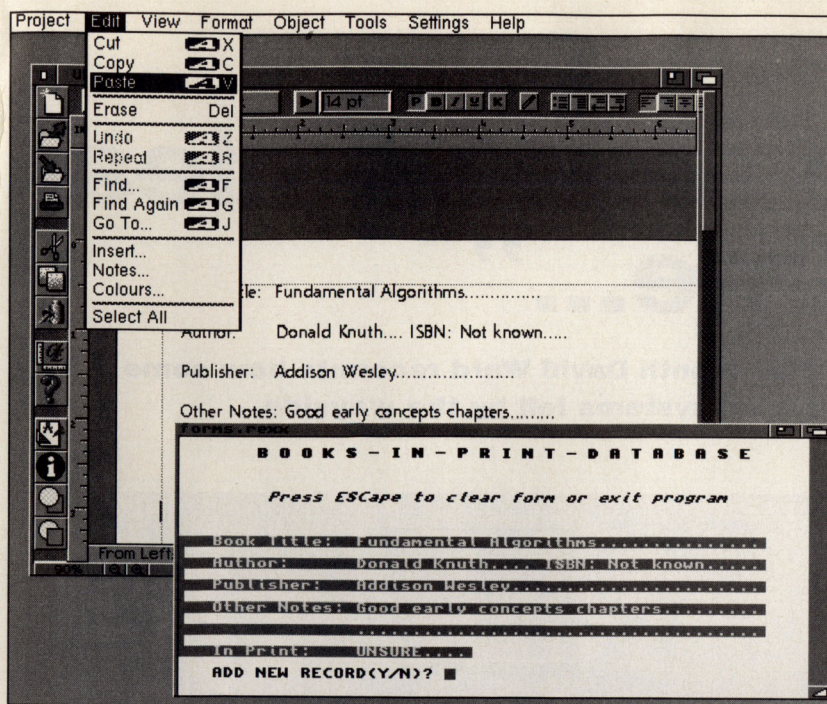
The reason is to produce any useful form-fill application it is necessary to carefully control what a user can, and cannot, type. Input fields need to have their length controlled (so that the user does not overwrite areas of the display assigned for other uses. Similarly some key presses (such as function keys) may need to be ignored while others, like backspace, have

```
set cursor to selected position
do while received input character is not a carriage return
  if count of characters received is LESS THAN allowed count
  do
    Select
      When char = function or special key
        ignore all associated characters
      When char = backspace
        remove last character
      When char is printable
        print and add to input string
      Otherwise - ignore character
    end
  end
  else force an exit from parsing routine
end
```

Listing 1: Build up a pseudo-code framework for your keypress parsing routine.



It's easy to convert scripts into form-fill type equivalents like this!



You can copy data from a raw window so both form fields and entered data items can be pasted into other applications.

to be recognised so that special actions can be taken. It is necessary to parse the input stream so that only those keypresses that are deemed to be useful are used.

When the keyboard is read using Readch() the Amiga keyboard keys labelled with ANSI standard characters will be translated into their ASCII character equivalent. With other keys an escape sequence will be generated and the number of characters generated can and does vary from key to key. One solution to this is to choose which key presses you want to support and then use a character collection loop whose exit condition is either the reception of a carriage return character, or the reception of more characters than specified when the routine is called.

To do this effectively you need to be able to monitor the use of special keys (like Home, End and so on) so that the various characters generated by these keys can be safely ignored. Displaying ordinary characters in routines like this is simple - just increment a character count, print the character to the screen using Writech(), and add the character to the input string being collected.

Backspace handling is a little more awkward for two reasons: firstly, printing a backspace only moves the cursor back one position - it doesn't remove the character passed over so we need explicitly to do this as a separate operation. One solution is to print a backspace, then a blank, and then backspace again to re-locate the cursor (the console device does provide a control sequence for character deletion, but this has a disadvantage for form-fill applications as it physically shifts up other characters on that display line causing any other field names on the same line to move).

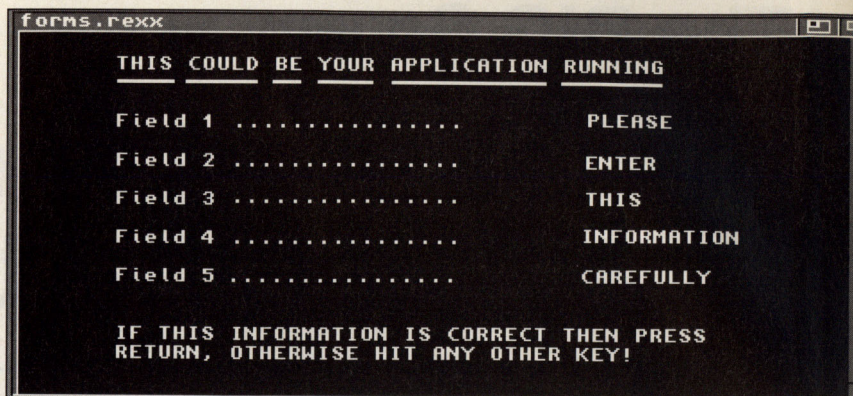
The best idea with this 'parser creation' stage is to make a preliminary list of the actions to be carried out as particular characters are received (see table 1) and then work on each part of the problem in isolation. It also helps to have some type of pseudo-code plan of the routine itself (see listing 1 for an example).

Defining Field Name And Position

I've found that the best approach for representing field names, screen position co-ordinates, and

```
g.TRUE=1; g.FALSE=0; g.CR='0D'; g.BACKSPACE='08'x
g.SPACE='20'x; g.APPROX='7E'x; g.ESC='1B'x; g.CSI='9b'x
g.BACKGROUND = g.CSI||'3e'x||'32'x||'6d'x
g.CELL_COLOUR = g.CSI||'34'x||'32'x||'6d'x
```

Listing 2: Awkward control strings are easy to hide by building up static definitions like this.



Next month we'll show you how to add routines from your own scripts to the framework provided with this issue.

lengths of reply fields is to use compound variables because this allows do/end type loops to then be used both to set up the forms and to collect data. This also solves the problem of passing field names to routines that have been defined as procedures because, as you probably know, ARexx provides an 'Expose' keyword which allows you to make particular variables 'visible' to a procedure.

By defining a suitable stem for the field definitions all that needs to be done to make the whole visible to a procedure is to make the stem itself visible using a single 'Expose' declaration. You can do the same thing for control character definitions or any other constant items that need to be available throughout the program. The advantage is that all these definitions are then defined in just one place, yet to access them from within procedures you only have to expose a couple of stems!

Example Code

The forms.rexx script that you'll find on this month's SuperDisk provides a skeleton framework that can be easily modified to suit any number of applications. It is fairly large and you'll notice that I've made a point of setting up a block of static definitions for handling the console command strings (see listing 2 for an example fragment). This type of arrangement for hiding

the real control sequence values is important since it helps keep the code used within the various form handling procedures easy to read. The compound variable (f. stem) form definition also helps things along as the form creation routine shown in listing 3 illustrates.

The great thing about the console window form based approach is that not only do you end up with a rather more presentable front end for your scripts, but you automatically get all the other bells and whistles that come with modern day console windows. You can, for example, mark out a form (or part of it) using the mouse and hit the left-Amiga-C key combination to paste the fields and field contents to the clipboard for use by other programs (and the clip preserves all the field positions present in the displayed form).

This month's example form itself is just that - an example - and you'll see that the information entered into the form gets passed to a DoSomething() routine that does nothing! There's a reason for this - I wanted to provide some skeleton code that was free from any application specific functions. Next month however we'll show you just how easy it is to take a simple Say/Pull based script, plan a form layout, extract the relevant routines, and then add them to this month's skeleton form fill code. Believe me - once you've seen it done you'll realise how easy it is. **AUI**

DisplayForm: Procedure expose f. g.

parse arg window

do i=1 to f.FIELD_COUNT

call WriteToForm(window,f.i,r,f.i,c,f.i.name)

end

return

Listing 3: The benefit of setting up form information using indexed compound variables is that the form procedures become particularly easy to implement (and to read).

The BIG Squeeze PART 3

"It seemed like a good idea at the time..."

The road to success is littered with failures... This month David Ward recounts how some of the one time wonders of the compression systems fell by the wayside.

Like garden shed inventors, there is always a programmer somewhere trying to re-invent the wheel. They spend hours tinkering with bits of code in an effort to come up with the definitive piece of software.

We at AUI are partly to blame for a recent outbreak of Lottery prediction programs for instance, but on the whole every type of program is being 'improved' upon by others than the original author.

Compression programs are no exception. Many a packer and archiver has appeared on the scene with fanfares of "This is the best because..." in the accompanying documentation files, only to fade into obscurity as the general Amiga using public continued with what they already possessed.

The user wants to be able to rely on something. And a new program is untested and could therefore be unreliable, which is something that you don't want to apply to your precious data.

Then there is the ingrained reluctance to change to anything new. How else can we explain why thousands of home users and companies still use the frightful DMS to mash disks.

In this month's article we will cover several programs that have yet to become the de facto standards their authors had hoped and may never do so. The reasons why, on the whole, I'll leave up to you.

HPack

Peter Gutmann, of Auckland in New Zealand, decided that the world would be a better place if there were an archiving program that was common to all platforms. Sounds like a sensible idea, don't you agree? Ah, if only life were that simple.

Peter Gutmann developed a compression system called HPack that ran on Archimedes, Atari, and

Amiga, and under MS-DOS, Windows, OS/2, and UNIX. He was assisted in this task by a team of programmers who ported the source code over to the various platforms and translated the documentation - all 75 pages of it. An achievement indeed.

HPack is an archiver that has more features than LhA, including encryption and support for PGP - the Pretty Good Privacy encryption standard. It can also archive a group of files as if they were one, so called 'unified' compression, in a similar way to the method used by LZX. HPack manages to produce smaller archives than those generated by LZX in tests we conducted, although compression times were generally much longer and the extra space savings not that significant. (See the box for details.)

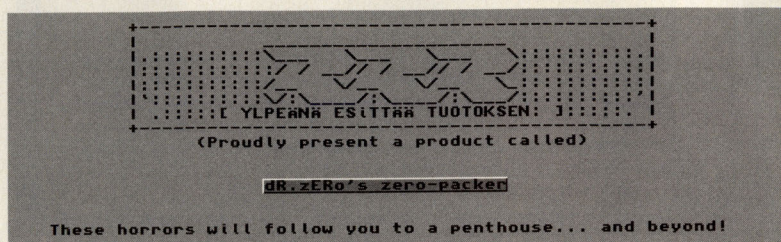
HPack manages to produce smaller archives than those generated by LZX in tests we conducted, although compression times were generally much longer

From an archiver that looked promising, to a packer that could have rivalled Nico Francois' PowerPacker.

P-Compress

Across the water in Australia, Chas A. Wyndham developed the 'P' suite of programs: P-Compress, P-Index, P-Reader, and P-Unpack. The main program, P-Compress, could be used to pack data, executables, fonts, and libraries.

Unlike PowerPacker et al, P-Compress did not create self-extracting compressed files. The



dR. zERo's zero packer proved to have zero efficiency when we tested it.

program was designed to increase disk space by shrinking what was already on there, purely to satisfy Mr. Wyndham's own personal needs.

The main idea was for the user to employ P-Reader to handle the compressed data files, for this program could display text, anims, pictures, and playback sounds. Or, if you wanted transparent file handling, a special P-Fixlib program could patch DOS so that Amiga applications could load P-Compressed files without user intervention.

Doesn't this remind you of PowerPacker and its utilities? P-Reader certainly combined the features of PPAnim, PPMore, PPSHOW, and PPTYPE into the one program. And the patch provided a similar function to PowerPacker Patcher by Michael Berg. So was it the compression ratios which let P-Compress down?

No, P-Compress will outperform PowerPacker (in 'Best' mode), and even CrunchMania and StoneCracker in their 'normal' modes. The secret behind this lay in Chas. Wyndham's use of the LH algorithm.

The reason why P-Compress never 'made it' will never be known,

but I propose that it was the user interface that was the main cause for the lack of uptake.

It just doesn't look 'professional'. The poor colour scheme and the amateur graphics do not inspire confidence in a program which you are going to use to alter your prized data.

The later P-Compress2 looked a bit better (it was re-written for Workbench 2.0), but still lacked polish. Good design is often more important than technical proficiency and the car industry has had more than its fair share of examples - the current Ford Scorpio is a decent car mechanically, but it looks awful and so it hasn't sold in the same sort of numbers as the previous model. On the other hand, the Mini is over 30 years old and still being made despite a poor safety and reliability record. Archiver creators, please do not go for the Mini (DMS) formula nor that of the Scorpio (P-Compress).

Department 'S'

Chas. Wyndham continued the development of his 'P' series of compression routines and support

HPack - how it stands up.

Total size of files: 178k

Archiver	Archive Size	Time Taken
LhA	64244	14 seconds
LZX	57283	18 seconds
HPack (normal)	59087	110 seconds
HPack (unified)	56943	250 seconds

programs. In particular, he always wanted to achieve the self-extracting capability that programs such as Imploder and PowerPacker had with executables.

He accomplished this ambition with the release of S-Exec in late 1993; a Shell driven piece of software that could compress a program using the 'P' algorithm and attach a special header to automatically unpack and run it when it was called.

There was a drawback. S-Exec could not handle software that uses a special programming procedure known as overlays, and Deluxe Paint has always been a prime example of software that employs this technique.

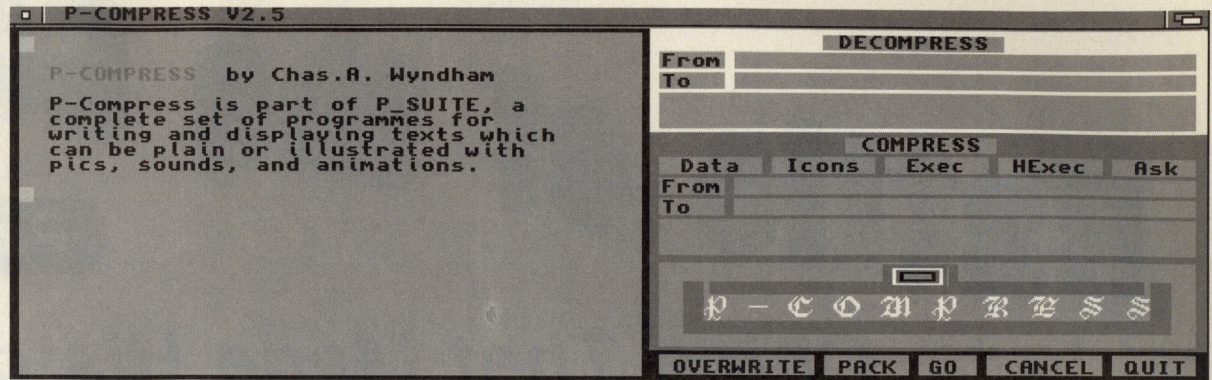
Let down by its lack of a GUI and the ability to handle the overlays, S-Exec couldn't draw attention away from Imploder, even though it could compress the bytes better.

S-Exec was not the first of the 'S' series. Along with S-Omni, which was designed to compress together files into a self-extracting archive, there were S-Anim, S-Pic, and S-Text.

These last three compressed their appropriate files (anims, IFF pictures, or text) and attached decompression and display headers. So a document that had been put through S-Text would end up smaller but with a reader program attached.

When any of these utilities were used, only the compressed data would be output. It was up to the user to attach an icon if he/she wanted to make the thing Workbench friendly. And this is where Chas. Wyndham went wrong.

With the release of Workbench 2.0 the main idea behind the new OS was to get away from the CLI/Shell interface and to rely more on the ease of use given by Intuition. A suite of programs that



Although P-Compress could outpack rivals, the public preferred software that was more professional looking.

made heavy use of the Shell might appeal to techies, but the average Amiga user wants point and click.

LZ Power Utilities

Before the various archive handlers became available, Karim Bennadi of Rome, Italy, came up with a bunch of utilities designed to handle software compressed by LZ and LhArc, and LhA when set to lower compression modes.

Once again the idea was to have these superiorly packed files operated upon as if they were normal Amiga datafiles. If it were a compressed picture, then the appropriate LZ Power utility would unpack and display it.

You could rename your own favourite tools to match, a method I chose for testing the software, but one that is definitely 'illegal'.

Bennadi, and his assistant Davide Pasca, came up with LZexe, LZplay, LZshow, and LZtype, which are similar to the programs produced by Nico Francois for Power

Packer and Chas. Wyndham for the 'P' series.

However, the latter three pieces of software did not work without additional support. For example, both LZshow and LZplay required an external program to show the picture or play the sound file.

The authors used their own favourite programs, which were rather obscure and were not supplied with the Power Utilities archive. A bad move, don't you think, giving people only half the goods?

You had a choice. You could spend time and money trying to get hold of only the programs with which the Utilities would insist on running. You could rename your own favourite tools to match, a method I chose for testing the software, but one that is definitely 'illegal'. Or you could forget about the whole thing in the first place.

This latter choice was followed by many, I am sure.

Dr. Zero's Zero

Those of you who remember the TV cartoon series of the seventies called "Wacky Races" will no doubt recall the fiendishly clever anti-hero Dick Dastardly and his side-kick, the more intelligent, Muttley the dog.

Dick's car was the appropriately numbered Double Zero (00), which

role playing gamers will instantly recognize as being the best possible score available from percentile dice but the worst number that can come up in roulette, if it's even allowed to be on the wheel. Unfortunately for Dick, 00 was never his lucky number; his wicked plans always backfiring. A similar fate appears to have befallen Ruskean Reian Ritarit's Dr. Zero's Zero (dr0) packer.

The idea behind this, if it ever were meant to be nothing but a joke, is a packer that's very quick and efficient at removing strings of zeros from datafiles.

A good example would be a monochrome bitmap image - typical clipart - in which the single bit-plane picture will be made up of thousands of 0s and 1s, some of which will be in long strings. Where there is black ink, there is a 1, where there is white background, there is a 0.

The benchmarks given by the author(s) certainly looked impressive, with dr0 outperforming LZX by a factor of 10 or 100! However, when I tried it, it either sent my Amiga to guruland or generated a file of exactly the same size.

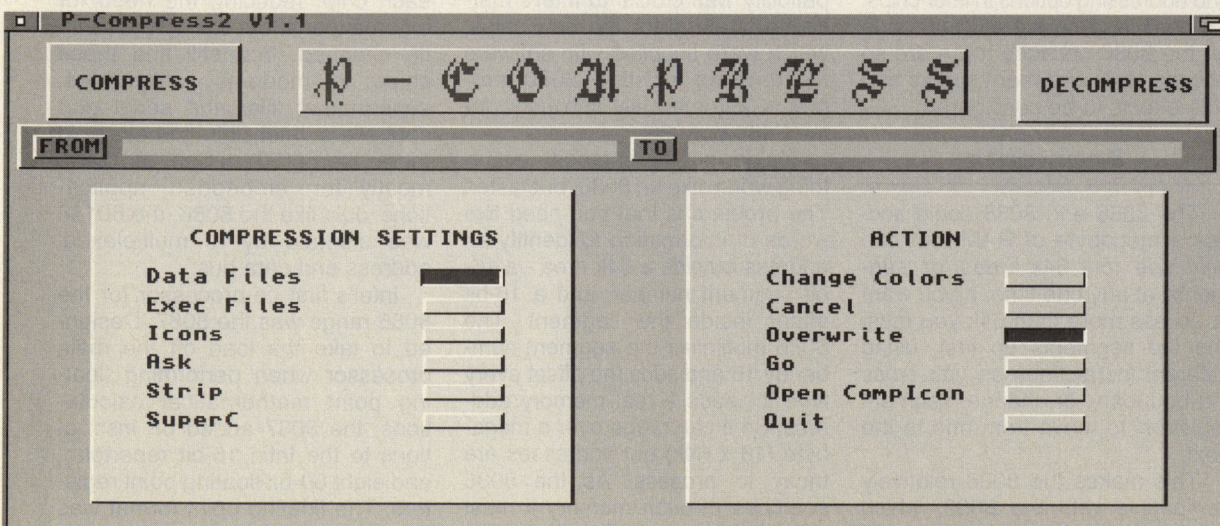
Ha ha, April fool!

While trawling the Aminet for exotic packers and archivers I came across one system that claimed it could generate any program ever written purely by the user entering a code.

There is a logic behind this, and the program actually works, but I'm afraid that the length of the code string needed is larger than the actual program. In my test a 50k program ended up as a 100k code string. Try typing that in!

SoftCode, by Michael Reimann, can be found in Aminet/util/pack or on disc 6 of the individual CD-ROMs.

I checked the date the program was uploaded to the Aminet and found it was only a few days after All Fools Day. Coincidence? **AUI**



P-Compress2 looked better than its previous incarnation, but still didn't entice users.

Battle of the Giants

Part Three

Chips That Made History

The battle between Motorola and Intel heats up in the latest episode of Simon Goodwin's definitive series on chips, the little things that mean so much.

When computer users felt the need to expand from the first 8-bit microcomputer systems, the most common justification was 'the 64k limit'. Early 8-bit processors were limited to 64k of memory, and that was the major reason for the move to new designs in the 1980s. The contest between Motorola and Intel continued, but the battleground was the new 16-bit chip ranges.

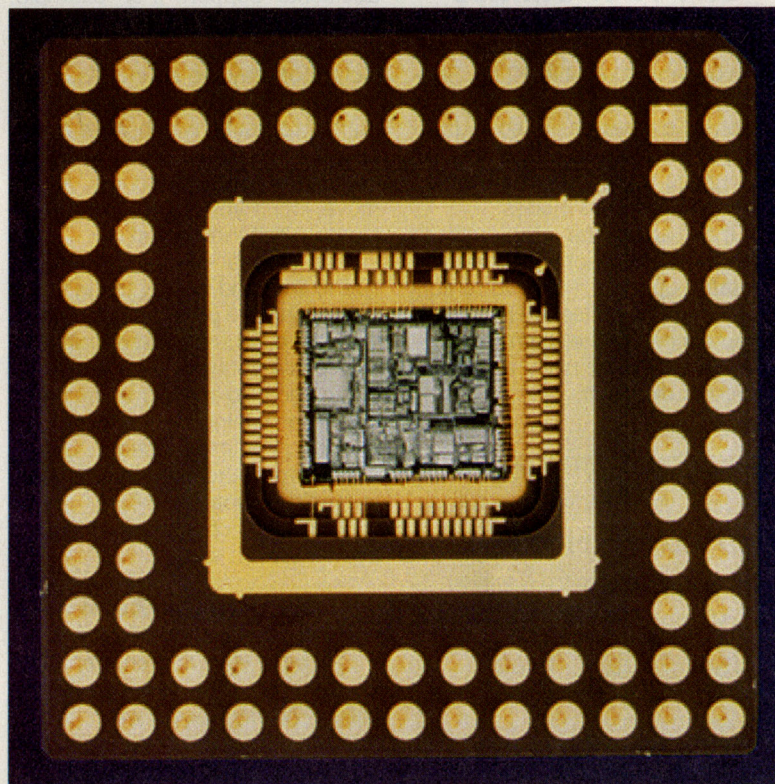
Intel's 8086

Intel's 8086 was launched in 1978. It had a 16-bit data bus and 20-bit addressing and came in a 40-pin package, like an 8-bit microprocessor. To keep the package size down, Intel used the same pins for data and addressing. This 'multiplexed' bus reduces cost, but introduces delays because the 8086 must wait for an address to be accepted by external circuitry before it can write the corresponding data to the same pins.

Intel abandoned the 8080 binary format to allow better instructions, including 16-bit integer multiplication and division, to be slotted into the 8086, but they kept the original instructions and quirky function-specific registers, so 8080 source code could be quickly converted to run on the 8086. This, and early availability, was crucial to its acceptance.

Ironically memory expansion was one of the selling points of the original IBM PC. This used a slow 8-bit 8088 processor - a version of the 8086 with the same instruction set but only 8 data lines, rather than 16, making it compatible with 8-bit peripheral chips.

At first it was convenient that 8086 code could be converted from 8080 stuff, but that left many people running slow, verbose code that ignored improvements in soft-



The brains of a 286.

ware design, and better arithmetic and addressing options in later chips. It's hard to generate efficient code for the 8086 because there are so few registers and many quirks and side-effects to be considered.

Segments

The 8086 and 8088 could access a megabyte of RAM, but can only 'see' four 64k areas, or 'segments' at any one time. If you want to access more than 64k you must line the segments up first, using different instructions as you cross the boundary, or change 'segment registers' to move from one to the next.

This makes the 8086 relatively compatible with the 8080, which

could only access 64k in total. Compatibility was crucial to Intel's marketing strategy for the new chips, which were supplied with software to translate existing 8080 programs automatically into code for the 8088 or 8086.

Inside a 64k segment everything works like an 8080, but faster. The problem is that you need two words of information to identify an address outside a 64k area - a 16-bit segment number, and a 16-bit offset inside the segment. The 8086 multiplies the segment number by 16 and adds the offset every time it needs a real memory address. So it can range over a megabyte (16 x 64k) but addresses are tricky to process. As the 8086 searches through memory it must

check for offset overflows and add 4096 to the segment value every so often. The hardware is no help as you cannot propagate a carry from the offset register to the segment.

Thus PC compilers come in several versions. The difference between 'small', 'medium', 'large', and 'huge' memory models on most PC compilers is the amount of work the program must do to keep track of segments. If you can fit your code or data into 64k, you get fast, concise code. If you cross the 64k barrier, clang! You must re-compile your programs, and accept that they're gross and slothful, because they need to keep track of segment registers.

Things are even worse if you try to mix the memory models, because Intel made a mistake when implementing subroutine calls on the 8086. This cock-up doubles the size of many PC compiler libraries.

Intel Improvements

The 80186 and 80188 were improved versions of the 8086 and 8088. They had more hardware on each chip, reducing the need for external parts, but the CPU was little changed. You still find these chips in modems, cellphones, supermarket tills, and serial port controllers. Intel claim to have sold more than 150 million of them, mostly for 'embedded' applications. Just like the 8086, the 80186 was sluggish by a 'multiplexed' address and data bus.

Intel's first co-processor for the 8086 range was the 8087. Designed to take the load off the main processor when performing floating point mathematical calculations, the 8087 added 68 instructions to the Intel 16-bit repertoire, and eight 80-bit floating point registers. The floating point format was

the ANSI/IEEE standard, later adopted by Motorola and Commodore. There was no Intel 80187.

Intel's 286

In 1982 Intel made better use of the new Pin Grid Array (PGA) package, with a grid of pins beneath the chip, and introduced the 80286 (later known as the '286'). This finally eliminated the multiplexed bus, catching up in that respect with the 68000, and added new features into the bargain.

The biggest limitation of the 286 is the segmented addressing scheme inherited from the 8088. Even today this holds back PC applications such as Microsoft QBASIC, bundled with most PCs, which limits its program and data areas to a measly 64k each, even on multi-megabyte machines.

Segments still haunt Windows 3, which uses a 64k table to keep track of memory. Once that's full, it reports 'out of memory', however many megabytes you have. Windows 95 simply allocates "two" 64k areas instead of one! Segmentation is slow as well as clumsy - loading a segment register takes eight times longer than loading a data register on the 286 or 386.

The 286 has two modes. Real mode is like the 8086. Protected mode supports memory management and handles segments better, but it is still rather tricky, and incompatible with programs that shuffle segments the old way. Unfortunately few programmers used protected mode, as MS-DOS needs real mode and you can't swap from one to the other without resetting the 286.

The 80287 was a version of the 8087 maths co-processor with support for protected mode.

286 to go

Back in the early 1980s Intel never intended the 8086 architecture to survive after the 80286. They designed that chip as a 'bridge' to their 32-bit multi-chip IAPX432 series. About this time the '80' prefix was dropped from Intel part numbers, so the 80286 became known as the IAPX286, or more commonly just the 286.

The 432 was a radical design, built on four integrated circuits introduced between 1980 and 1983. Arguably it's not a 'real' micro as the processor was split between two chips - but it deserves mention to explain what Intel was up to in the early 80s.

The 432 was a stack based machine designed to run high-level

languages like Ada. Instructions were bit aligned, ranging from 6 to 321 bits long. All values were stacked, so there were no data registers. It had 32-bit addressing, albeit still split into 64k segments.

A 68000 could run rings around the 432 on many tests, and was much easier to program and design into systems.

The 432 did not catch on, despite its advanced features, because it was slow and complicated. A 68000 could run rings around it on many tests, and was much easier to program and design into systems. IBM became concerned that Intel was losing the plot, and pumped money into the company to develop a new 32-bit version of the Intel architecture. The result was the 80386, a colossal step forward when it arrived in 1985 and the saviour of the PC architecture.

Enter the 386

It was not until the 386 that Intel made a processor that could work well with direct 32-bit addressing. Unfortunately programmers carried on using segments. You see little advantage when running MS-DOS, as the 386 emulates all the foibles of its predecessors. Intel added two extra segment registers, much appreciated but rather a mixed blessing as segments caused so much trouble.

The chip's registers are 16 bits wide when running MS-DOS. They are a full 32 bits wide, and can range all over RAM, if you run an operating system designed to suit linear addressing; Unix - particularly the freely-distributable Linux - is the prime contender. Microsoft Windows 95 still uses 16-bit code, although it supports 32-bit applications. 'Modern' MS-DOS and Windows programs start out in 16-bit mode, and use add-ons like EMM 386 and QEMM to switch the processor in and out of 32-bit mode.

The 386 has advanced addressing modes, just as the original 68000, but it is still relatively short of registers and lacks Motorola's 68020 advances. Address calculations are pipelined so that instructions using the new modes are just as fast as the original, simple ones. The main performance

benefits on old programs came from faster memory access and much higher clock speeds.

The 80387 co-processor was the first significant advance in Intel floating point hardware, two or three times faster than the original 8087 at a given clock speed.

Towards the end of the decade Intel introduced a cut-down version of the 386. The original became known as the 386DX and the new model was the 386SX, with a 16-bit data bus and 24-bit addressing.

The 386SX is the minimum recommended for modern PC software - it has memory management and support for full 32-bit internal operations, so you can even run Linux on it. It's slow compared with modern Intel chips, but fully compatible. It was followed by a 16-bit version of the 387, known as the 387SX.

Motorola

Unlike Intel, Motorola deliberately abandoned their 8-bit heritage - the 6800 and 6809 - when they went on to the 68000, opting for a new mini-computer style architecture. Motorola's 68000 powered the original Mac, Amiga, and ST. It has 24-bit linear addressing, and fetches and stores 16-bit words. Multitasking is straightforward because the processor has two modes - user and supervisor - with a separate stack for each, and hardware protection to stop user-level programs fiddling with supervisory resources and thus upsetting other tasks.

The 68000 is more advanced than the 286, although roughly comparable in terms of memory limits, clock speeds, and code throughput.

It took a while for Motorola to catch up with Intel for software support; but when they did, they had the advantage of a new, consistent architecture that made the new code easy to learn from scratch, and allowed compilers to generate efficient code automatically. Since the 68000, Motorola processors have allowed direct access to any area of memory. The 32-bit address and data registers mean you can move data to and from arbitrary places without worrying about falling off the end of the world (or

segment). 32-bit pointer arithmetic and comparisons run almost as fast as 16-bit operations. This is a boon if you have large amounts of memory - and these days, who hasn't?

The 68000 is more advanced than the 286, although roughly comparable in terms of memory limits, clock speeds, and code throughput. Better addressing modes made it relatively easy to handle large structures such as moveable code, lists, and tables. The 68000 can compute two addresses by combining four 32-bit register values and two offsets, perform two external 32-bit memory accesses, and test the result all in one step, using a 32-bit instruction.

Equivalent 286 code would use at least three instructions, with 16-bit limits throughout, and only two registers available for each purpose rather than the 8 base and 16 index registers available on the 68000. The 286 can process more instructions, at a given clock rate, as the minimum instruction length is 8 rather than 16 bits, but the Motorola instructions are more powerful.

Intel's scheme does save time and memory when everything fits within one 16-bit segment. For instance when a program calls a subroutine in the same 64k area it only need store two bytes of return address, where the 68000 would have to store four.

The 68000 allows 'short' 8 and 16 bit offsets from the calling instruction to the target, but either way it stores a full 32-bit return address. In theory it could get by with just 24 bits, but it prefers to work in whole units of 16 bits so it can be sure of fetching both halves of a 32-bit value in one step.

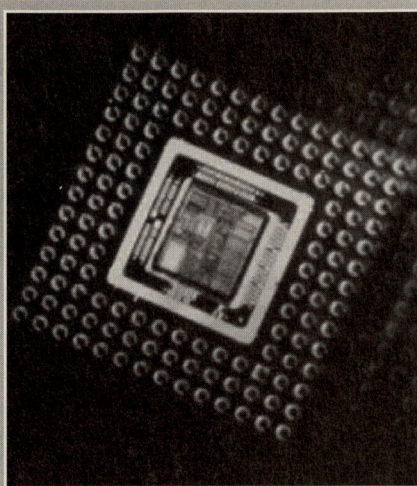
Motorola challenge

Two years later Motorola produced the 68008. This had an 8-bit data bus and only 20 address bits, for a maximum address range of 1Mb. It was actually more complicated than the original 68000, but fitted a smaller 48-pin package by the omission of some address and data bits, and one interrupt line. It's code-compatible with the 68000, and found favour in Sinclair QL and ICL One Per Desk micros.

The 68010 and 68012 were similarly small tweaks on the established formula. They suited external memory management chips by supporting re-execution of instructions that fail for memory reasons. Another small change optimises the execution of tight loops, which could be slow on the 68000.

A 'cache' - literally a 'hidden store' - is a fast memory area which can in principle over-ride any part of main memory. A cache can be built outside the processor, but the fastest are part of the main chip.

Software engineers observe that most programs tend to run in loops, repeatedly reading the same short sequence of instructions or data values. This 'locality of reference' means that a processor can run much faster if it keeps recently-used memory contents 'cached' internally.



You can plug a 68010 into a 68000 socket and it will work. Some Amiga owners did just that, to take advantage of the loop optimisation. The snag is that one of the 68000's special-purpose instructions, MOVE SR, was changed for the 68010 and 68012, to make memory management more reliable; this instruction causes an exception if it crops up in user-level code - including many early emulators - on a 68010 or above. An Aminet utility, TUDE, can patch programs to use the new MOVE CCR instruction instead of MOVE SR, but it's easier to revert to the 68000...

32-bits

The main thing holding back the 68000 was its appetite for memory access, with big 16-bit instructions and 32-bit data values. Some instructions access as many as 18 bytes, meaning that the processor spends much of its time waiting for memory.

The solution came two ways. In 1984 Motorola extended the data bus to 32-bits, fetching twice as much code or data in each step. They also introduced the minicomputer concept of 'cache memory' to their range.

The 68010 had a very simple instruction cache, called 'loop mode'. It recognised instructions in tight loops, storing them internally to avoid the need to re-read code. This speeds up sloppy routines, but 68000 programmers in need of speed normally 'unroll' their loops, writing the code out several times to avoid needless counting steps. This defeats the loop mode because the sequence becomes too long for the 68010 or 68012 to store internally.

The 68020 has a 256 byte internal cache which can be accessed 50% faster than the quickest external memory. The cache is loaded

32 bits at a time. Many instructions are only 16 bits long, so there's a good chance that every other code reference will find data already waiting in the cache. A more important advantage is that the 68020 can read the cache at the same time as it accesses data in external memory.

The 68020 runs at clock rates up to 33MHz - three or four times the speed of the 68000 and 68010. Overall performance can be ten times faster, thanks to the caches, 32-bit bus, and internal improvements.

Addressing was extended from 24 to 32-bits, which caused problems for some programs, particularly on Apple Macs, which had used the 'spare' 8 bits for their own purposes. New instructions and addressing modes include 64-bit multiplication and division, bit field operations, and memory indirect modes similar to those on the 6502, but much more general.

Later Motorola introduced a cut-down version, the 68EC020, which is just as fast but reverts to 24-bit addressing. This is the chip used in the Amiga A1200.

At first Motorola chose to implement memory management with separate chips, rather than follow Intel's lead and build it in. Philips' SCC68070, used in CD-i players, has an on-chip MMU and runs 68000 instructions under licence, but performs relatively slowly.

The first Motorola MMU was the 68451, soon followed by the 68851 used on Commodore's first 68020-based Unix board, the 2620. The 68020 and 68851 made a popular engine for mid-80s Unix workstations, so Motorola developed it into an all-in-one model, the 68030.

The 68030 has two 256 byte caches: one for instructions, the other for data. Both caches can be

independently accessed at the same time as external memory. This represents a return to the 'Harvard Architecture' of the first microprocessors, substantially boosting performance on complicated instructions.

At best, it triples the throughput of the processor, as data and code can be read simultaneously in two clocks, rather than in two successive three-clock external cycles; alternatively the 68030 can read data and code words at the same time as it performs a three-cycle external access, for the same three-fold (9/3) advantage.

These are best-case figures and in practice the improvement is much more modest, except in special case like the Amiga Qdos 8 colour screen driver, which is specially written for 68030 and above, using a 256 byte data table for chunky to planar conversion.

Programs that work extensively on registers are boosted by 50% at most by caches - less if they use relatively slow instructions like multiplication and division, which stall in the execution unit. The 68030 data cache does not accelerate writes to memory, although the value written is cached in case it will be re-read soon after.

And the rest

Intel and Motorola were front-runners, but they were not the only firms naming microprocessors in the 1980s. The Japanese NEC (Nippon Electrical Company) out-integrated Intel with their V*0 range. The V20 can run either 8088 or 8080 machine code. The V30 is a 16-bit equivalent - like an 8086 and 8080 in one chip. It is often used as a plug-compatible replacement for the 8086; Amstrad used it in their PPC portables because it was cheaper, faster and took less power than Intel's original.

Later versions like the V50 are often used as SCSI controllers on hard disks and DAT drives. They're not particularly fast, but incorporate lots of extra hardware - timers and ports - which simplifies the design of peripheral control circuits. The software is readily available as all SCSI devices - whether controllers or targets - work essentially the same way. Controller code can easily be adapted to service a particular peripheral.

National Semiconductor failed to break through with their own 16016 and 32032 chips. These corresponded in power to the 68000 and 68020, but were introduced later and lacked software support. The first number indicates the internal data size and the last the width of the external bus, so versions like the 32016 were also produced.

Zilog's Z8000 was eagerly awaited, and found a home in some early workstations, but when it eventually arrived it was a bit of a disappointment. It had a similar architecture to the 68000, but worked rather more slowly, and complicated its design with Intel-style segment registers.

Zilog followed with the Z80000, a full 32-bit chip released in 1986, but this failed to catch on, not least because it arrived after the Motorola 68020 and Intel's 386, which had similar 32-bit architecture and much more available software. The Z80000 did introduce the world to the six-stage pipeline, which was not adopted by Intel or Motorola till the 486 and 68040 at the end of the decade.

Floating Point

With its 32-bit registers, a 68000 performs simple floating point operations in its integer unit faster than corresponding values can be loaded into an Intel 8087, processed and copied back! Floating point hardware is still handy for trigonometry and ray-tracing, where values are processed much more than they are converted. Motorola built a co-processor interface into the 68020 and 68030 to forward special instructions and data to dedicated number-crunching chips.

The first Motorola FPU (Floating Point Unit) was the 68881, running at speeds from 16 to 25 MHz, with similar throughput to Intel's 387. It was followed by the 68882, with an extra pipeline stage which at best doubles performance, and support for higher clock speeds - up to 50MHz, making it two to four times faster than a 68881. The hardware difference is small - 155,000 transistors in the 68881 and 176,000 in the 68882. If you're strapped for cash on a slow machine a 68881 will give you most of the benefit, at relatively low cost.

In the November issue **AUI** examines the challenge of RISC chips from IBM, MIPS, SUN, Acorn and others. Don't RISC next month without it! **AUI**

SUPER TENNIS CHAMPS AND CHARACTER DATA DISK

AUI discovers how Mark Forbes spends his leisure time; playing tennis, and also when a data disk is not what it seems.

Audiogenic £19.99 + £7.99

After recently witnessing Pete Sampras get horribly beaten by Richard Krajicek at Wimbledon, I decided to have a bash at rallying on my own, and play a few sets in Audiogenic's marvellous game - Super Tennis Champs.

First, I must say this: here is a game that should put developers on other platforms, and even some on the Amiga, to shame. Why do they insist on hiring tennis stars to greet the gamer in the opening sequence, or go to the expense of employing a live band to do the music? It's ridiculous when you think about it. And these extra glossy bits only cover up what's usually an awful game. It's great to have atmosphere and realism, but that does not mean economies should be made in the gameplay so that there is money available for royalties and appearance fees.

I first experienced this game when it was released on an Amiga magazine's coverdisk. Tennis Champs was a superb simulation of real tennis, and I played for many hours against friends. Although often beaten, Tennis Champs was so influential I even took up playing the real game. But that's another story. However, I foresaw a bright future

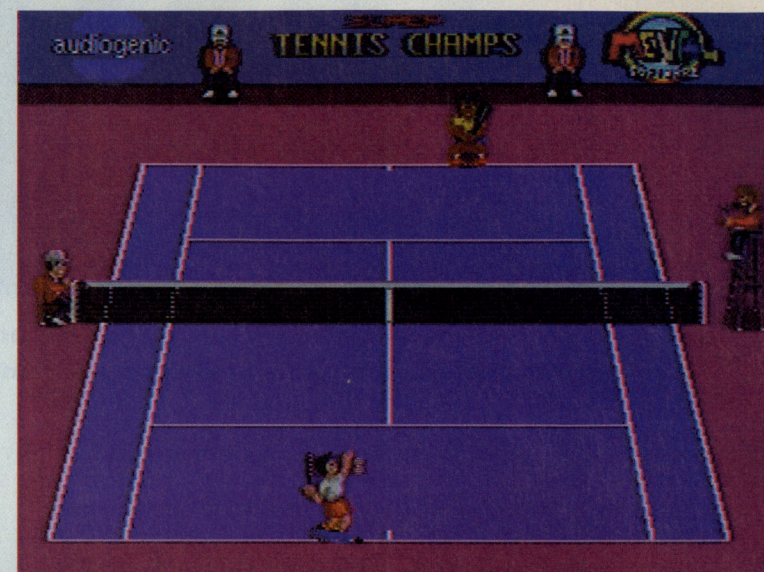
for the programmer of this little gem.

When Super Tennis Champs was released earlier this year, the much improved sequel allowed you to play doubles with one to four players as a mixture human or computer controlled opponents. There are sixteen CPU players to choose from, and you will recognise many as being likenesses of famous players from years past.

As far as I'm concerned, the original Tennis Champs game was good. The new version is even better, and more efficient as Audiogenic have managed to code the program to fit on a single disk, rather than the two the original used. They have even added some jolly tennis style music on the title page to warm you up before the real match proceedings begin.

An additional data disk has now been released which adds a further sixteen players, this time female, so you can now play Navratilova-like in tournament or exhibition matches. There are also a selection of 8 men and women for use in mixed double games, but these cannot be used separately.

Gone are the tacky audio comments that littered the original, which is a plus, and the graphics



are still decidedly average, but the perfect gameplay more than makes up for this. After a seemingly never ending stream of football games, Super Tennis Champs and its data disk makes a wonderful change and is so enjoyable to play. The doubles matches are amazing when you play against the computer or even a human player. And it's even more exciting when you play it against or with three of your mates at a time.

Super Tennis Champs is a stunningly addictive and playable game which relies heavily on the thing that most sports games on other platforms don't possess - PLAYABILITY! Game set and match, it's a winner.

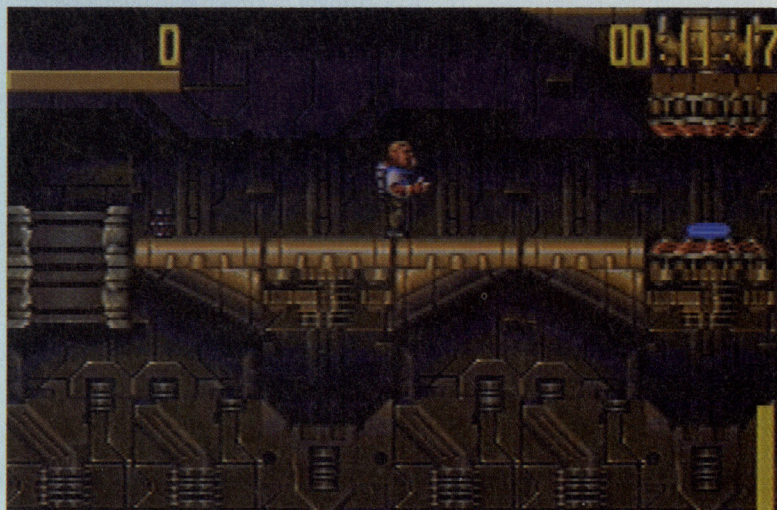
VERDICT

Graphics:	75%
Sound:	78%
Gameplay:	96%
Overall:	95%

Audiogenic products are available direct from:
Guildhall Leisure, Unit 15
Guildhall Industrial Estate, Kirk Sandall
Doncaster, DN3 1QR
Tel. 01302 890000

EXILE DISCOVERY DISK

Audiogenic £7.99



When **AUI** reviewed Exile AGA earlier this year, Ashley Cotter-Cairns said that it was "a very old game". He was right, because this game was originally programmed for the long dead BBC Micro. An Amiga version was released that was practically a straight port of the BBC version, and it wasn't until Audiogenic revamped it with AGA graphics and stunning level designs that the game could be considered decent.

If your not familiar with Exile, then it is safe to say that it is a platform-style adventure where you control a jet-packed fellow who must retrieve a device stolen by a mad scientist (as usual) from a spaceship named 'Destinator'. Once this task has been done, and it's not easy, you can then leave the planet.

To supplement the game there is now the Exile Discovery Disk, which you might think gave you extra levels, weapons, or other bo-

nuses. You'd be quite wrong. The Discovery Disk only allows you to access any of the original 12 levels by using the teleports provided - a disk of saved game positions in fact. A cheat's disk.

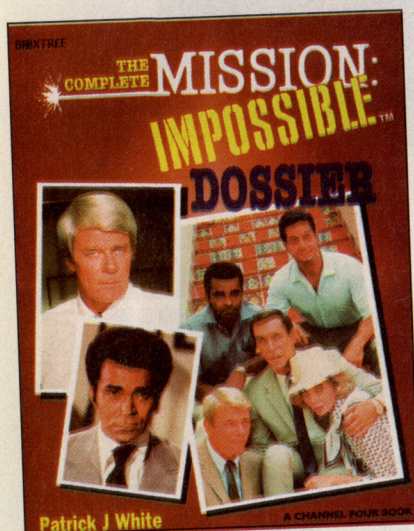
How on earth Audiogenic can charge £7.99 for this is beyond me, but if you are desperate enough to want to complete this difficult adventure then commonsense will give way and you'll be easily parted with your money.

VERDICT

Graphics:	71%
Sound:	59%
Gameplay:	70%
Overall:	64%

HOORAY FOR HOLLYWOOD

Blockbuster movies that rely not only on computer generated effects, but also computer powered plots... We review the supporting publications and a new spy thriller too.



The Complete Mission Impossible Dossier

Cult TV programmes always get a book that supports the series, and 'Mission Impossible' is no exception. However, this book's sheer size puts it into a class of its own. This is no glossy tome that uses many colour illustrations to cover up for a lack of interesting text. The Complete MI Dossier is quite the reverse. True, there are pictures here, black and white photos of the cast and still frames from most of the 168 episodes that were filmed, but the bulk of the book is solid, interesting information.

How the series came about, the casting, the studio politics, the tantrums, threats, and cajoling, it's all in here. 'Mission Impossible' seemingly lived up to its name. It was almost impossible to produce.

Patrick White tells a fascinating story of how Bruce Geller created a series that lasted seven seasons regardless of the obstacles put in front of him by studio bosses and sometimes his own cast. The Dossier details the biographies of all the main characters of the MI team and

gives a complete plot summary for each and every episode made, both in Hollywood and Australia.

Like the UK's 'Avengers', 'Mission Impossible' returned many years after its original run with a new cast, except for Peter Graves who still played Jim Phelps, and a new location. The Australian settings helped remove the series from its previous studio-bound constraint, but the loss of many of the talented people behind the original kept it from returning to the dizzy heights of success it once held. The famous dossier scene went too, to be replaced by a computer screen.

Born at the Desilu Studios, MI outlasted its stablemate 'Star Trek', but it never achieved anywhere near the cult following the space serial garnered. There were fans, of course, particularly of Peter Lupus, the strongman who played Willy Armitage with very few lines. When he was 'temporarily' laid off, the clamour raised by the fans ensured his quick return. Other popular characters were not so lucky. Husband and wife team Martin Landau and Barbara Bain got the push when their contracts came up for renegotiation and the ugly question of cash was raised.

'Mission Impossible' was only a money-spinner after the last episode was made and it could go to 'syndication'. Prior to this it 'belonged' to the television station CBS, who had been offered the show by Desilu for less than it cost to make. A similar fate befell 'Star Trek'.

Both shows had cross-overs. Production staff often worked on both series, but actors only seemed to head one way. From 'Star Trek' came guest star William Shatner (Captain Kirk) as a villain twice, Leonard Nimoy (Mr. Spock) as series regular Paris, George Takei (Mr. Sulu) appeared once in a minor role, and Marc Lenard (Spock's father) often guested as a villain too.

When it was good, it was very, very good. When it was bad, it was awful. 'Mission Impossible' was a show that was destined to run out of plots very quickly, but reworking earlier storylines kept the series going. It surprised everyone by lasting as long as it did.

And now we have the film. The idea was not new. In 1984 a movie version re-uniting the old cast had been put forward. After all, the 'Star Trek' gang had been busy churning out features since 1979, so why not Desilu's (now Paramount's) other 'hot property'. It was not to be. The Dossier was written in 1991, so it does not cover the film. Many fans would be glad of this, for they feel that the film does not follow in the traditions the television series. And as for killing off...

I'm not saying who in case you have not seen it. But I will say that if you're a 'Mission Impossible' fan, then the Dossier is a gem worthy of an impossible mission just to obtain it.

INFO

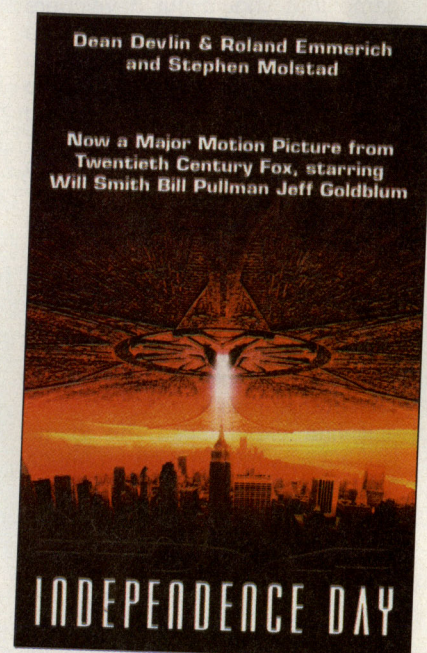
THE COMPLETE MISSION IMPOSSIBLE DOSSIER

Author: Patrick White
Publisher: Boxtree Books
ISBN: 0 7522 0210 3
Price: £12.99 (Paperback)

Independence Day: The Novel

This is the book of the film, not the film of the book. What's the difference? A lot. Many films are based on existing books and bringing the story to the big screen can often be a nightmare. Simple ideas are easily executed, but some storylines, particularly science-fiction ones, are difficult.

Occasionally the idea behind



the book is used, and what ends up on celluloid bears no resemblance to the original story. Much to the chagrin of the book's fans. At other times, the story is so grand that the film-maker cannot realise it as the author intended. Witness the movie versions of Frank Herbert's 'Dune' or Tolkien's 'Lord of the Rings'. However, by approaching things the opposite way round as it were, great movies can be made. For example '2001' and 'Alien'. Here the film came first, then the book, and 'Independence Day' is banging away at those precedents. And banging is the right word, for the film certainly has lots of big bangs!

Twentieth Century Fox are definitely in the money this Summer. In the USA 'Independence Day' overtook their other blockbuster, 'Mission Impossible', to grab the No.1 top grossing slot even though it does not feature top stars with anywhere near the drawing power of Tom Cruise. The public know what they like, and they like a disaster movie.

Preferably with a few horrific aliens thrown in for good measure.

'Independence Day' does not disappoint. The wholesale destruction of Earth's population centres by spectacular pyrotechnics is conveyed convincingly by the authors, but lovers of destruction and mayhem may find themselves skipping the parts of the book where background characterization occurs.

This is the book of the film, and the film must appeal to its audience. It usually does this by making them identify with one or more of the lead characters. To broaden the appeal we must have more characters, so in the film we get a gung-ho young pilot; a craggy general; a computer wizard, his crusty old father, and his ex-wife who works for the President; several single parents plus children and dog; and an heroic President, his wife and daughter. Chuck in a few others and you're bound to get someone to whom you can relate. Consequently a major part of the beginning of the book is devoted to fleshing out these people.

Luckily, the unpleasant aliens arrive and start killing everyone, so we can then move on to the exciting part of the story.

Stephen Molstad has done a good job in converting director Roland Emmerich and producer Dean Devlin's script into a readable book. It certainly holds the attention and I was compelled to read it in one sitting. So far so good, but I felt that I'd either read or seen bits of the story before. The aliens use of 'organic' ships, which they have grown, is a popular concept in science-fiction, and the earthling's solution which brings about the alien's downfall has been used so often recently that it is becoming a cliché. However, for those whose taste runs to destruction from extra terrestrial sources this could prove an entertainment for an autumnal rainy evening or an escapist relief from a bedbound bout of human flu.

INFO

INDEPENDENCE DAY: THE NOVEL

Authors: Dean Devlin, Roland Emmerich, & Stephen Molstad
Publisher: Bantam Books
ISBN: 0 7522 0281 2
Price: £4.99 (Paperback)

The Making of Independence Day

This slightly smaller than A4 tome contains the story of how the

film was made. From seed idea, to casting, to how the special effects were done, The Making of Independence Day tells us almost all. Almost all because it doesn't always tell the truth. It produces the feeling that one of the authors, Rachel Aberly, has worked for a public relations agency somewhere in her past. Volker Engel, on the other hand, was the main effects man on the movie and may be excused.

Why is this impression produced? In the profiles of the director, producer, and leading characters, their previous credits are listed. And these are often implied to have been all 'hits'. Emmerich's and Devlin's 'Universal Soldier' is a prime example, for only a PR person would describe it as that.

That was then, and this is now... 'Universal Soldier' showed promise if nothing else, and their next feature, 'StarGate', was definitely a lot better. 'Independence Day' shows that they have now hit the big-time box-office receipts.

Someone recently called 'Independence Day' the 'Star Wars' of the 90s. But how do you go about creating a film where everything is new, where members of the intended audience are not going to sit there and say to themselves "Oh yes, they got that idea from....". It's quite difficult, and if you look hard enough you will find similarities in "Independence Day" - unintentional or not.

What comes through in this book is the amount of model work involved, when today apparently digital image manipulation is all the rage. That's not to say that the computer graphics department was not also heavily involved. It was, and it makes its presence felt in the generation of wave after wave of fighter craft on both sides of the conflict.

For realism on the big screen you must still use models, albeit computer controlled ones, especially with close-up shots. Computer generated images still lack that "used" look that real things have, and the special effects team claim that no computer can yet "blow-up" a building in a realistic way. So models, from a few inches wide to many tens of feet, were constructed for the movie.

Having seen the film, you will be amazed at how that scene that looked so realistic was, in reality, a small collection of models being obliterated. The movie maker's special effects art really comes to importance in the action picture, and this book certainly lifts the lid on the trade's secrets.

INFO

THE MAKING OF INDEPENDENCE DAY

Authors: Rachel Aberly & Volker Engel
Publisher: Titan Books
ISBN: 1 85286 731 0
Price: £8.99 (Paperback)

Hard Target

Let's get one thing straight right now. The blurb on the cover of the book hails David Nash as "The New Cyberspy". He isn't. This is not a near future Neuromancer clone. David Nash is in no way intimate in a physical, mental, or emotional way, with the Internet or any other electronic data system. Our hero is not a hacker, far from it. This is not the gripping yarn of a lone youth patiently, painstakingly, and with frequent flashes of brilliance, picking his way through the subtly trapped layers of a national security system. That novel, perhaps, remains to be written.

Indeed, The Computer Guru is, in this tale, still an extra character to be wheeled in when the plot has hit a bumpy bit. To grin grimly and rattle the keyboard as the hero looks on in admiration tinged with doubt, and instantly produce the seemingly insignificant, but oh so crucial, piece of information that will send the gallant agent of MI6 or SIS, or whatever collection of capitals they go under at the moment, off to the next exciting location. I wonder if the sort of mind that understands the intricacies of computer systems is just not the type of mind that can write an exciting novel about it. And vice-versa.

So, now that we all know what Hard Target isn't, what is it?

In short it's a James Bond for the 90s. James Adams may prefer to be compared to Frederick Forsyth, but he is firmly in Ian Fleming territory. Of course, I'm referring to the James Bond of the books, not the films. I had just finished reading a selection of the Bonds when I was asked to review Hard Target. I didn't need to read very far for the similarities to strike me; the apparently unconnected preamble or "teaser"; the high octane action sequences contrasting with the authoritative revelations of the workings of the various intelligence organisations; the villain's apocalyptic plots, only just this side of believable; and the variety of exotic places the narrative visits. Being a product of the P.C. 90s, "New Man" Nash misses out on Bond's hedonistic lifestyle; no high-cholesterol gourmet meals; no martinis, neither shaken nor stirred; certainly no smoking, and a rather thorough frisking from a female assassin is the nearest he gets to a sex scene.

The plot concerns the plan by disgruntled members of the post-Soviet Russian military, and sections of the thriving Russian Mafia, to use biological warfare to carve out a nice little independent empire of their own and threaten world peace at the same time. Adams paints a bleak picture of post-communist Russia, and an even bleaker one of the West's chances of beating the international drug barons. Since he is acknowledged as one of the leading defence journalists, I suppose we must assume this is not far from the truth.

Of particular interest to AUI readers are the technological wonders that Adams suggests are, (or at least, are soon to be,) part of the world of espionage. These range from unbreakably encoded, animated holograms, via Surveillance Rocks, (apparently packed with enough technology to run a small country), to exploding hair. (Baldly going where no agent has gone before?) When you read it, it all seems rather plausible.

With all the action, drama, and whizz-bang technology, the sum of Hard Target is a damn good read!

INFO

HARD TARGET

Author: James Adams
Publisher: Michael Joseph
ISBN: 0 7181 4137 7
Price: £9.99 (Paperback)

HARD TARGET

Laser-guided loner, David Nash
Thriller fiction's new cyberspy

James Adams

Win! Win!

The Great

"AUI Gratis and For Nothing Movie Book Tie-In Freebie Giveaway It's All Yours Competition!"

You wanted bigger and better special effects. You got them. Summer this year saw the release of two enormous blockbuster movies - have there ever been tiny blockbusters? - where computers and computer generated special effects were a key element.

First out into the cinemas was 'Mission Impossible'. Based on the cult TV series, currently being repeated on Channel 4 every Sunday morning, the film starred Tom Cruise as the Internet-ready discredited impossible missions agent determined to prove his innocence and right the wrongs for which he has been framed. For those with long memories there was a Mission Impossible game (from US Gold) in the days of the C64, which involved little blocks moving around the screen in eight colours or less. The teeny-weeny blocky hero

ran up and down corridors and didn't do much else. Despite the popularity of the TV series, the computer game was a flop. Ah, those were the real Mission Impossible days.

Next out of the studios came the explosive extravaganza 'Independence Day'. The all star cast of the Earth versus the alien invaders movie includes science-fiction stalwarts Jeff Goldblum and Brent Spiner, as well as actors known better for their comedy roles such as Will Smith and Judd Hirsch.

Independence Day smashed box office records in the USA as the burger-biting, coke-swilling - no, not coke-sniffing - teenagers of the drive-in cinemas sought visual thrills and spills in between the real action in the back seats of the Cadillac.

So wouldn't you just love to know what lies behind all those millions of dollars spent on bringing this highly cultural baloney to a screen near you now, if not sooner?



What could we at **AUI** do, other than make it happen for you - with a little help from our friends those ever generous folks at Titan, Boxtree, and Michael Joseph Publishing? They have presented us with a selection of publications that tie in with these action smaction movies. We have thirty books to give away to the lucky winners of this very special easy-to-win competition.



How to win

The competition is split in two parts. Get all the questions right and you will be put into the draw to win a copy of each book. Get the 'Mission Impossible' questions right only, and you will go into the draw to win the book of the TV series. While getting only the "Alien Invasion" questions right guarantees your entry to the draw for the Independence Day books.

The Prizes

The overall prize winner will receive:

'Independence Day: The Novel', 'The Complete Mission Impossible Dossier', 'The Making of Independence Day', and 'Hard Target'

The Independence Day winners will receive:

'Independence Day: The Novel', 'The Making of Independence Day', and 'Hard Target'.

The Mission Impossible winners will receive:

'The Complete Mission Impossible Dossier' and 'Hard Target'

And there will be a number of other prizes of a copy of the cyberspy novel, 'Hard Target', for the runners-up.



How to enter

Send your answers to both or just one set of questions, together with your name and address, written on the back of a postcard or closed envelope to:

The Great **AUI** Movie Book Competition
Unit 2, Utopia Village, Chalcot Road, London, NW1 8LX

The closing date for entries is November 1st 1996 (to allow for any postal strikes) and prizes will be sent out soon after that date. Winners names will appear in the next **AUI** after the competition winners have been drawn. The Editor's decision is final and no correspondence will be entered into.

Good luck and Happy Reading!

Here are the questions:

The Alien Invasion Questions

1. Perhaps the most famous story about alien invasion is the 'War of the Worlds'. Who was the author?
2. Which single letter formed the title of the late 1980's TV series about reptilian alien invaders of Earth?
3. Complete the title of this famous 1950's Hollywood B-movie about invading aliens: 'Earth versus the F _ _ _ _ _ S _ _ _ _ _'.

The Mission Impossible Questions

- A. The taped message at the start of each Mission Impossible episode began with the phrase 'Good morning Mr. _ _ _ _ _ ...' What was the name of the chief agent who received the instructions from the second series onwards? (And don't say 'Ward' just because he set such a complicated competition!)
- B. Name the actor who appeared in MI and led the crew of 'Space:1999'.
- C. Name the actor who appeared in both MI and the original 'Star Trek' series as a regular character.

THEY THINK IT'S ALL OVER... ...IT IS NOW!

Ashley Cotter-Cairns relives Euro96 by taking part in Domark's Total Football.

Total Football – Domark £34.99



What a wonderful time to be writing this review. I've got the replay of England's win in the 1966 World Cup Final on in the background and, while I'm sure it must have been great at the time, I have to report that the standard of football was rubbish. Never mind what your uncle, dad or grand dad might tell you, it is all lies. The quality of passing was generally lower than the exam results in a school for especially stupid people, the goalkeepers played like they had been tranquillised and the goals were softer than a duck feather duvet that's just backed out of a fight with a small marshmallow.

Mind you, it gives good atmosphere for writing a review.

What a time for Domark to release its latest football game. Gremlin may have the rights to the official Euro '96 license, but that's no guarantee of quality, as anyone who's bought an official World Cup licensed game in the past decade or so will testify to. Total Football also joins the melée at the same time as the European Championship version of the Sensible World of Soccer, so it has got some competing to do.

It's a game closely modelled on the arcade pub football games which were so popular in the 1980s. The ball 'sticks' to the feet of each play-

er once he receives it correctly and then he'll dribble with it, though usually at a slightly slower pace than the rest of the players can run, to give them a fair chance of making the 'Moore tackle.'

Once in control, your player has three options. A single tap passes to the nearest player in the direction he's facing. On occasions when there's nobody left to pass to, all that happens is a rather duff forward ball that Superman couldn't

run onto. A double tap on the joystick button unleashes what's supposed to be a shot, which may then be bent using aftertouch (if you're skilled enough). Finally, a triple click lets you hoof a high one as far out of defence as possible (or straight into the goal if you're close enough).

This system doesn't work very well, I'm sorry to report, unless you have an extremely good joystick and very good anticipation skills. That's because if you should accidentally make one press too many or too few, the whole move you've built up breaks down big time. In other words, the long ball out of defence becomes a sad pass to the opposing centre forward, the pass you had in mind becomes a shot - and the shot, when it finally occurs, is a hoof that goes in completely the wrong direction because you expected to be angling a cross. That shooting thing again. Because there's something like half a second's delay between you shaping up to shoot and the shot arriving, you'll already be doing the aftertouch as the ball leaves your feet - which means you'll have turned your striker 45 degrees away from goal and, if you're lucky, the effort might be worthy of a Bobby Charlton

in the '66 final (ask an elder relative about how close he got to the corner flag on several occasions).

This really is a stumer, because it is the foundation on which the entire game is built. There is the option of using a two-button joystick, but if (like me) you don't have the luxury of that rare beast, you're going to have to make do.

It's a shame, because Total Football is superbly presented and there are some nice features. You can play a friendly, league or championship; there are oodles of teams to choose from, with realistic strengths and weaknesses. Sound is entertaining, with much babbling of crowd, cheering and thumping of leather on leather and, while the graphics aren't the world's greatest, they do the job more than adequately. If you're lucky enough to ever score a goal, you can control your own celebrations (wicked fun).

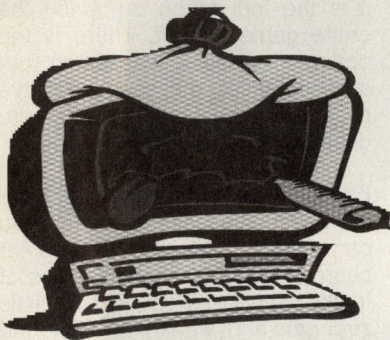
If you can put up with the control system, Total Football might grab your attention and keep you playing for weeks. However, once you have created eighteen chances on goal and seen seventeen end in row Z of the crowd left of the corner flag, you will probably give it all up for something more healthy - watching videos of Euro '96, for example.



VERDICT

Graphics:	84%
Sound:	79%
Gameplay:	78%
Overall:	80%

The Amiga Answer Machine...



That master of the mysteries of the Amiga, Andy Eskelson, Guru of the groundbreaking question and answer, is here again with the magic response wand to wave over and waft away your problems and perplexities of a typical technological type.

Answer Types

APPS	Programs etc]
VIDEO	Video related problems
COMMS	Communications
PROG	Programming
OS	Operating System
PRINT	Printer Problems
COVERDISK	Cover Disk problems
OTHER	For Anything Else

HARDWARE



Dear AUI,

I've just bought an A1200 and a Reno CD-ROM player with a Squirrel SCSI Interface, and I am having trouble getting the two to communicate. The computer is the basic model with no other peripherals added.

I used the Squirrel master disk to create a CDBoot disk as per the instructions, but it does not seem to work when I insert CDBoot and a CD, the latter just runs and runs, and nothing changes on the screen, just the RAM disk and CDBoot icons. If I click on CDBoot/devs/DOSDrivers/CD0 I get the message 'device CD0: is already mounted. Should the CD's icon not appear and at THIS point in the proceedings.

I have the feeling that I'm making a basic error that I'm sure you have long spotted, but to me it's completely unfathomable. What on earth am I doing wrong?

Neil Gregory
Birmingham

Dear Neil,
I assume that you have connected the CD correctly. If you only have the CD and no hard drive, make sure that the CD is

terminated. Also check that the CD is set to a free SCSI ID number. Set to 1-6 and avoid 0 & 7.

If that is all okay, and it still does not appear, the next thing to try is: open a Shell and type CD cd0: [return] if the drive and everything is set up correctly it should see the drive, then try a dir [return]

Sometimes a disk does not put up an icon for various reasons, and the Shell commands will force the system to read it if there is a disk in the drive.

Once you have a response from the Shell you will probably see an icon appear, which you can then use in the normal way.

If nothing works, then you may well have a more serious problem, perhaps even a faulty drive.

HARDWARE



Dear AUI,

A few months ago I sold my A600 and bought a second hand A1200. A few weeks after I got my A1200 I was using DPaintIV to mess about with a picture. When I was changing the colours I could not get one of the colours to change (the colour on the bottom right of a 32 colour palette), it would only stay white, but the other colours

changed okay. I noticed in some games that one of the colours was not its proper colour, it was white.

I have tried the following: disconnecting external disk drive, disconnecting the printer, using a TV instead of a monitor, disconnecting audio leads, and using a different power pack.

None of the above works - I still have this annoying problem.

I also recently bought an internal 2.5" 120Mb hard drive and I installed WB 3.0 and MagicWB AGA. I copied a lot of programs and games to it, and Mega ED v1.5, Civilization, and many other programs keep crashing (Mega ED crashed 5 times while I typed this letter!). Sometimes they work okay, sometimes they won't load at all. I think I have enough memory because about 1.5Mb is free. I wrote down the following task codes 0009A6C0, 0008F3E0, 000968A8, 0009C2B8...

When I entered these codes and many more into GUI-Guru most of them were: CPU exception, close library failed.

Could you please help with both my problems?

M. McVickers
Stirlingshire

Dear M. McVickers,
You may have a couple of

problems. The colour one is odd. Try using another paint program, such as Personal Paint (on a SuperDisk some time ago) There is an AGA version of DPaint IV, and if you are running the non-AGA version this may be the problem. Personal Paint will prove this.

The crashes could be almost anything. Poor power supply, general lack of RAM (not likely), overheating. However, my first suggestion would be to get rid of any Workbench add on programs such as Magic Workbench. ALWAYS test from a clean and as basic a system as possible. It's quite possible that a couple of programs are interacting.

Check your hard drive installation carefully, making sure all the connections are good. Try a bigger power unit, as by adding the hard drive you might have tipped the balance and the power unit may be suffering the strain. If nothing resolves itself it may be time for a visit to the repair shop.

HARDWARE



Dear AUI,

My setup is an Amiga A1200, presently without hard drive (broken), and waiting for a new one coming by snail mail,

Commodore 1085S monitor, Seikosha SL95 Colour printer, and two external 1Mb floppy drives.

These drives are the problem - or perhaps not? You will see.

In Germany I had an Amiga A500, 8Mb RAM for several years and could not afford a hard drive with controller. Therefore I bought 3 external floppy drives, for those were still much cheaper over there than a hard drive - about £20 each! They are the same drives as advertised in every magazine in England - 1Mb external replacement drive with Sony mechanism.

A short while ago I bought an A1200 and my trouble began. Since I connected the drives to the A1200 I could only use them for reading disks. No writing on disks or formatting - only a requester telling m: write error on DF1, 2 or 3 and after that not a DOS disk in DF1, 2, or 3. My first thought was: too many drives and the power supply is pushed to the limit. So I disconnected one drive, but there was no difference. And, of course, only one drive didn't change anything either. A bit annoying for I used to buy unformatted disks in bulk, and with X-Copy pro it's nice and quick to format 4 disks at the same time.

So what do you reckon is wrong with it? Could it be that the drive port is faulty or something more fatal? I thought it could be the drives being too old, but I have no way of finding out, for I don't know anybody around with another external drive. And buying one for about £50 only for trying out, if that were the problem, is a bit too expensive for me.

Finally, could you please tell me, if it's possible to connect an A4000 keyboard to the A1200? Can I build an adaptor for it to connect the PCB socket to the keyboard lead. I'm not afraid of some soldering and how much roughly would the keyboard cost?

George Deis
Cornwall

Dear George,

Firstly a small request from me, and all readers please note. Please try to use simple fonts in your letters. Standard NLQ Courier or Times is fine. The reason is that to speed Amiga Answers up, I make use of an OCR system, and script type fonts just don't work with it!

The problem with your drives is very simple, and a bit terminal I'm afraid. The A500 disk drive port was supplied with a -12V line which disk drives needed. The more modern drives generate all the required voltages from the +5V line, and don't need external -12V. The -12V line was removed from the disk drive port on the A1200. If you want to, you could mount the drives in a PC mini tower and use it's power unit to supply the drives.

The A1200 has the keyboard decoder electronics on the main board, and there is no way to break in after this without carving up the A1200 motherboard.

Expect to pay between £50-£80 for a keyboard.

HARDWARE



Dear AUI,

Firstly, may I congratulate you on producing the best Amiga magazine which has a good balance of games and utility software and hardware articles and reviews? The SuperDisks, as always for January and February were excellent and packed full of useful utilities. Anyway enough praise and grovelling, let's get down to business.

My system: A1200, 202Mb (internal 2.25") hard drive, extra external DD disk drive, Citizen 120+ 9-pin dot matrix printer, Philips HCS 35 (SCART connected) colour monitor.

Plus my new purchases:
Blizzard 1230-II
Accelerator board,
50MHz 030 +
MMU + 50MHz
PGA 68882
FPU (No
memory yet) and
Blizzard 1230 SCSI II
DMA controller board.

Now my queries about my system really revolve around my new 2nd hand purchases. I understand that my accelerator board is pretty useless without any memory on it so I plan to buy a 4Mb 72-pin 32-bit SIMM for it. What I would like to know is, is there any general information about the MMU? I have a very vague idea of what it does, but would really like to learn about this chip and how it works and how to use it properly.

In addition to this can you tell me if my Blizzard 1230-II board clashes with my PCMCIA card

slot as I have heard that some accelerator boards do and therefore means that this slot is useless. If my board does clash with the PCMCIA can I physically disable it (apart from physically removing it)?

Following on from this I really want to get a CD-ROM drive for my A1200. Now all the adverts I see at the moment offer CD-ROM drives plus a Squirrel interface to run them. Obviously, if my accelerator clashes with the PCMCIA slot then this is useless to me, but I do have the Blizzard 1230 SCSI-II DMA controller which allows me to connect external SCSI devices such as a CD-ROM drive. What I really want to know is can I buy a cheap external PC SCSI CD-ROM drive and connect it up to my Blizzard controller? I only want a dual speed and have seen then quite cheap in a number of shops. If I can't, which drive would you recommend, and if I can which cheap PC drive can you recommend?

Please find enclosed a copy of a manual for a Maxtor 5.25" hard drive which I have recently been given. It has no power supply, casing or SCSI-2 ports, but if I could get it to work on my SCSI controller it would be great, do you have any idea if it is possible? I don't have a clue.

Do you know how I can get hold of the Exploding Layers Commodity which I believe makes windows expand out of drawers or devices rather than just appearing, does this make sense?

Mr. J. Parker
Nottingham

Dear Mr.
Parker,
The 1230-50
will almost double
the speed of your

A1200, probably more. If you do add memory to the 1230 then the effect will be even more dramatic. As RAM prices have just crashed, currently to about £60 per 4Mb at the time of writing, you could probably afford to shove in 8Mb.

The MMU is not very useful in general programming. All it does is keep a table of memory addresses and maps read/write events to a specific memory range. The developer tool 'enforcer' makes use of the MMU, this helps track down bugs. Its other function is to allow the use of hard disk Mb as 'virtual' memory, expanding the apparent RAM fitted to the

computer. If you want to find out more then the Motorola technical documentation will be required. You will need to find a technical bookshop, or library for this info.

I do not think that the 1230 clashes with the PCMCIA slot, however, in your case it does not matter. It is best to check with the manufacturer on such matters. Once installed it is not possible to disable it.

The Squirrel interface is a SCSI interface. As you already have one just add any SCSI drive you fancy. Be slightly careful as some PC CD-ROMs come with their own interface cards specifically for the PC, and are not SCSI. Anything advertised as SCSI should be okay.

Your drive is a SCSI drive. J1 is the SCSI connector. Just daisy chain it with the CD-ROM, connect up some power to it (J3), set the addresses to be unique (JP35,36,37), correctly terminate the chain (RN17,18,19) and that's all there is to it. A small PC tower case is useful for holding such devices (and CD-ROMs) and providing power for them.

Exploding layers, waste of CPU time! Still if you must have such things. The multi purpose commodity KCommodity has such a feature. I found it as KCX25.lha on Aminet CD set 1.

HARDWARE



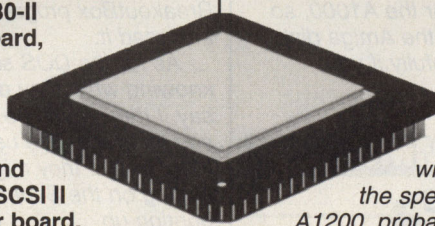
Dear AUI

May I say thanks for a very informative and interesting magazine always a good read with superb SuperDisks?

I write in hope that you may be able to help me solve a very annoying problem that I have with my Amiga computer.

My setup consists of an A1200 with a 80Mb Seagate hard drive, a GVP Series II Accelerator card with a 40MHz 68030 with a 68882 co-pro attached, 8Mb of 32-bit Fast RAM in 2x 4Mb GVP SIMMs.

My problem is bootstrap failure when I switch on the A1200. The hard disk light comes on then goes out after about 10 seconds, then the power light flashes after a reset using Ctrl-Amiga-Amiga. The computer will boot sometime only after several attempts after giving a software failure message. After the computer has booted, the computer will boot faultlessly even after being switched off for



several hours, but if left for more than 8 hours the original problem crops up again. I have tried replacing the power brick with one from an A500 with no success. The PD program Da Last Alert gave these readings:

Alert Number \$8000000E
Alert Task \$00002768
Alert Name A CPU FORMAT
Spec Alert STACK FRAME
FORMAT ERROR
Spec Error HARDWARE/CPU

An S.A.E. is enclosed for an early reply as the computer is in constant use with my daughters college work. Your help and advice in this problem will be very much appreciated.

Charles Carsberg
Shropshire

Dear Charles
I would think
with the
expansion that
you have in
your A1200,
you need to
consider a
heavy duty
power unit
just to be
safe.

Some
Seagate
drives,
particularly old
models had a very
long power on self
test which took longer
than the Amiga did to boot, so
a warm reset was required. I
would not expect your drive to
have that problem, but it's worth
bearing in mind.

This problem could be almost
anything, it has the 'feel' of a
temperature related problem,
perhaps a dry joint somewhere.
The only thing that I can suggest is
that you try reseating the
accelerator and see if that helps. If
not you will need some
engineering services from a repair
shop.

HARDWARE



Dear AUI,
Thanks to Andy Eskelson for
his help when I wrote last with
problems with MME etc. His
advice was clear and helpful.
Now I have another small
problem.

I recently attended an auction
of electrical and computing

hardware, and among other
things, I picked up a Minidata
5.25" DS-DD twin disk drive
(tower type), model 2061. It has
its own PSU, and I was
wondering if you could tell me
how to connect it up to my
Cumana 3.5 model CAX354 so I
can expand my A500 a bit?

Also will I be able to use it
when I upgrade to an A1200?
Bruce Andrews
Hastings

Dear Bruce,

Firstly, a general plea. Please
don't mix topics in a single letter, if
you have questions for Amiga
Answers please keep them
separate, the same goes for any
comments to Write to Reply etc.
By all means put them in the same
envelope, but make sure you put
your name and address on
each one.

It may be
possible to
connect the
drives up to
the Amiga.
It is not a
simple
connect the
wires up job.
You will
need to
build a
small
electronic
circuit to
identify the
drive to the

Amiga, and to control
the motor. The information
to do this can be found on a very
old PD disk called Amicus 8. Note
that this will be for the A1000, so
be sure to check the Amiga disk
port pin outs carefully if you
attempt this.

COMMS



Dear AUI,
I read with interest your
"Laptop" feature many months
ago and then saw the advert for
the Z88 laptop computer at a
bargain £40. After buying this I
realised that a connector cable
was required for me to exploit
the laptops capabilities (i.e.
networking). Seeing as how I
wanted a network not a network,
I decided to consult your
hallowed pages for advice.

I am hoping that a standard
9-pin to 25-pin adapter lead will
do the job. I am also hoping
that I can just use NComm or

something similar to perform
the data transfer.

I have decided to ask your
advice as I want an unbiased
opinion (obviously the company
advertising the lead will say
"Oh, of course you must buy
our very expensive connection
package at £16.99", whereas a
£6.99 cable and some PD
software will do fine.

Please help me as I would
like to use the laptop at school
as I usually convert all
homework to disk and print it.

I enclose a photocopy of the
details of the Z88s serial
"joystick" port.

Pretty please with sugar on
top, could you reply in the given
envelope?

I have written a few very
basic DOS Scripts, please tell
me in your reply whether you
are interested in them. If so I will
write documentation for them
and send them to you.

Ta for the X-Files Backdrop.
You can tell this is important to
me as I have just written this
letter instead of watching my
fave program.

Alan Graham
Ayrshire

Dear Alan,

NComm will do the job with no
problems. The connections given
in the Z88 documentation should
work fine. You need a crossover
cable and this is what the
documentation describes. I doubt
that a standard 9 to 25 way will do
the job, you may need to get the
soldering iron out.

I did produce a toolbox on basic
comms to accompany the
BreakoutBox program. Dig that out
and read it.

As for the DOS scripts, without
knowing what they do I can't really
say if they would be of interest. If
you think they are useful send
them in and they might be worth
putting on the SuperDisks or
printing up.

COMMS



Dear AUI,
I need advice! First my
system. An A500 with 2Mb chip
RAM, 6Mb fast RAM, 270Mb
hard drive, Mitsumi fx400 CD-
ROM drive, Highway 144 fax
modem, Matador 105 scanner,
Alfadata optical mouse, two
external drives, a Citizen Swift
90c dot matrix printer, a Canon
BJC70 bubblejet printer, and
last but not least Commodore

active stereo speakers. Sorry
about the long list, but I think it
might be relevant to the advice I
need.

First of all I would like to say
that I think your magazine is A1.
The question I would like to ask
is this. With my present system,
is it possible to link a new
A1200 to my A500 so that I can
take advantage of the
equipment I already have, e.g.
can I use the A1200 for the AGA
chipset and the 68020 processor
using the A1200 keyboard? Can
I also still use the hard drive &
CD-ROM drive through the
A1200? That goes for the rest of
my equipment. I would be very
grateful if you could help me.

If it is possible, what do I
need to achieve my goal and
where do I get what I need?
Once again I would like to say
keep the magazine's coming I
look forward to reading them
each and every month. THANK
YOU, AUI.

Graham J Barnaby
Newport

Dear Graham,

You can network the two
machines. However, to do this
cheaply means that you have to
accept that things will be a bit
slow. You just need one of the
many networking packages. Start
with the Weird Science Network
CD. This has everything in
software that you will need.

A cable to connect the two
machines will be required. You can
use the serial port or the parallel
port (slightly faster), either way a
couple of switch boxes may prove
useful. You can either build or buy
the cable.

Once the network is established
you will be able to see the various
devices on each machine, and
open them in the same way as if
they were locally connected. The
only difference will be the speed.

OS



Dear AUI,
I wonder if you could help me
with a very annoying problem
that I am having trying to get a
CrossDos Driver to work on my
new A1200.

I had until recently an Amiga
A500, but I put it in part
exchange at Escrom in the Office
World complex in Kirkstall Road
in Leeds. They were
unbelievably helpful. To say
they are PC orientated only,
when they have two staff well

keyed up on the Amiga scene, which I was very pleased to come across having read all over that Amiga help was poor in the Escom shops. I can recommend this shop for anyone hoping to upgrade to the A1200.

Anyway, as I was saying, the problem is that when I follow the instructions in the manual it states: The standard DOSDrivers for CrossDos are PC0 and PC1 which correspond to DF0 and DF1. These two drives allow you to read and write 720kb or 1.44Mb MS-DOS disks depending on the capacity of your Amiga disk drive.

You can activate a CrossDos driver whenever you boot by moving the PC0/PC1 icon to Devs:DOSDrivers on your Workbench Disk and clicking on its icon to mount, it will stay active until you reboot, (I have noticed a soft reboot will not kill the mount). You can do the same temporarily by clicking on the DOSDrivers PC0/PC1 icon in the Storage disk.

I have followed the instructions as laid down above, but I still can't read or write to or from PC disks, it appears to mount the drives correctly as if you try to remount the drives a requester comes up at the top of the screen and states that the drive is already mounted, but according to the book there should be two icons for each drive every time you insert a disk with the names: DF0???? or PC0???? alternatively DF0???? or DF1???? depending as to whether you have inserted a Amiga formatted disk or a MS-DOS formatted disk. All I seem to get is DF0/DF1???? for the MS-DOS disks and no icons for PC0/PC1. This is very frustrating as I have tried all that I and I still can't get it to work.

My daughter is starting College in the Autumn and will be living away from home during the week, but will be home at the weekends and she will be doing work on an MS-DOS system with Windows 95. She will need to work on her disk at home from time to time and I don't particularly want to go out and buy a PC after sticking with the Amiga since 1989 and having just upgraded. Can you please help? I sincerely hope you can.

I am using an Amiga A1200 with 2Mb RAM, two external disk drives a Seikosha Speedjet 200 inkjet printer using HP-Deskjet-

plus emulator (no hard drive as yet) and a Penril Datacomm 14.4k Modem v42bis. I have typed this using Final Writer 4 Lite with Zfont.

Mr. G. N. Farnell
West Yorkshire

*Dear Mr. G. N. Farnell,
Last things first, and as a general plea to anyone writing in to Amiga Answers. We get A LOT of letters, and in order to help speed things up I scan the letters in and convert them to text using an OCR program. This program is good, but it does get confused especially with fancy fonts.*

Please, if you do send in typed letters stick to Courier, Times, or Sans Serif type fonts. Above all don't use fonts that run into each other, either horizontally or vertically. This will help me greatly.

I've come across your problem, but I've never found a real reason for it. The solution is quite simple, and there are two methods that you can use. The first is to open up a Shell and type CD PC0/1 for whatever drive you need. This will force the OS into reading the drive. The more permanent method is to drag PC0/1 from the storage drawer into your DOSDrivers drawer on your boot disk. (Please only work on copies of your disks).

Reboot from cold and you should then find things will work as per the instructions. Also check that you have the CrossDos filesystem in your L: directory.

OS



Dear AUI,
Brilliant! Great! My name twice in AUI (doesn't take a lot to keep me happy?). First, just a passing thank you to Mr. J. Hall of Stockport, then a reply in AUI Answers - albeit cut down (cut away?), my daughter still thinks it's great. Anyway, now for the serious stuff, late last year I bought a RAM expansion from Siren Software which died in April this year (sad day). I tried different tools to check the board which told me that the memory was duff. So off to Siren I went ready for at least a good moan but no, the happy chap behind the counter said here's a new board and fastmem (great!). So off home happy with my new RAM. A few days after

fitting said RAM crashes occurred. Check the RAM. Checked the Amiga. All okay.

At the time I was using fastmemfirst, assuming that this would make the computer faster, but while using DOpus the CPU was registering up to 99% use while copying etc. So out went fastmemfirst and now no crashes and DOpus registers up to 69% use? I thought that using the fastmemfirst would speed up the Amiga and cut down on the CPU (obviously not). More of a query than a plea for help.

Joe Hall
Stockport



*Dear Joe,
I'm happy that you saw your name up in lights as it were!*

Thanks for the info that Siren (0161 796 5279) do a Dataflyer SCSI unit for the A1200. I happen to know that Ian Aisbitt has sorted out a SCSI system.

Now your problem. Where did you get fastmemfirst from? This program dates back to Workbench 1.2/1.3. The internal ROM software of the newer machines, Workbench 2 and, up have the same function built-in. It also auto detects the RAM and uses it correctly. Running fastmemfirst would confuse things quite well.

OS



Dear AUI,
Many thanks for your reply to my letter. I'm sorry I haven't got back to you before, but I've been away for a fortnight.

You may recall that I was having problems getting my standard A1200 (no HD) to see the attached Reno CD drive. Your advice was twofold, to set to a free SCSI ID number avoiding 0 & 7 and or 2. Open a shell, and type CD cd0: [return]

Sadly neither of these suggestions worked, but you

did get me thinking so I tried the Squirrel's CD32 boot option instead of the CDboot and hey presto! It worked. The CD32 option put up a CDDevice prefs menu at the end of the installation which allowed me to click and save Reno CD etc. The CDBoot option didn't do this.

Unfortunately this has given me two further problems:

1. Although I can now access my CDs I'm getting a lot of messages along the "Unable to open your tool C:IconX" (or other lines). Is this because I'm using the wrong boot disk, lack of memory, or hard drive, or is there a problem with the operator's brain?

2. I'm finding it impossible to view picture files or hear music modules. They seem to be in two forms: there are those which are simple lists and others which are found behind the hammer pseudo-icon. I've tried clicking on just about everything only to be told that the files are not

executable and have failed returncode 10. I tried to access these through Multiview on one CD, but nothing seems to work. And how do I unpack DMS files?

I've studied the Workbench manual long and hard with a slowly sinking feeling. Why are these things always written as if beginners understand the jargon and have some basic idea what they're doing? After all I flatter myself that I am at least average intelligence!

Finally, can you recommend a PD house that offers a CD Boot disk that actually works and allows me to specify which CD drive I'm using?

Neil Gregory
Birmingham

*Dear Neil,
I'm glad that you got things going. I really cannot understand why some manufacturers make things so awkward.*

Your first problem might be due to using the CD32 boot, but it is actually the most common problem that I get asked. All that is happening is that the default tooltype set in the Icon is saying use the program C:more to display this file.

Normally I would simply tell the reader to edit the Icon file and change the default tooltype. However, as these files are on CD, which is read only, you have to use a different method.

You will need to have a search through the CD, and find where it's

more program is located. Make a careful note of the path. This is the description of exactly where the program is on the disk. It looks like this:

cd0:A-Drawer/Another-Drawer/Another-Drawer/TheProgram

There could be many drawers each separated by a slash. This is known as the path.

As the icon is telling you that it expects for the more program to be in the C: directory, you need to tell the Amiga that it has an extra C directory to search.

Open up a shell and type

Path c: cd0:A-Drawer/Another-Drawer/Another-Drawer ADD [return]

If this throws up an error that the path command could not be found, find the path command (normally in the C: directory) and just CD into it. Then it should run.

The Amiga will first search its default C: drawer, and then any others that you add. You can add as many extra paths to the various directories that you like.

Your second problem is related, the hammers and lists are different views, (select Window menu and look at the options in the View and Show items). The point is that these files are DATA files, not programs. You need to find a player program, or a viewer program, and point it to the data files. Many viewer programs have a file selector that pops up to allow you to do this.

You should find the necessary viewer/player programs on the CD.

DMS is a disk archiving program. Rather than compressing files, it compresses a whole floppy. You normally copy the DMS file into RAM and then run the DMS program, this will have the necessary options the uncompress the disk. Note that this only uncompresses to floppy. (It can be done to a special type of RAM Disk as well, but we will not go into that here).

The DMS archiver should also be on the CD somewhere, often such programs are in the utilities drawer.

I don't know of any specific CDboot programs, apart from that supplied with the various drives. It is more common to build your own boot disk by modifying the relevant startup-sequences.

I understand your comments about the manual, but I have to disagree. The Workbench manual is too simple. What you are lacking

is some fundamental knowledge on how the Amiga operates. You expect things to work by clicking on them - this is where the whole concept of WIMP systems falls apart. What is really needed is for a couple of chapters really explaining how the Workbench system works from the inside. This would answer so many questions and queries. The lack of this is one of reasons that I wrote the Toolbox series. Dig out your back issues and read the Toolboxes, and I think that you will begin to see things in a much clearer light.

VIDEO



Dear AUI,
Needing a computer for business start-up, a friend who is already an avid owner talked me into an Amiga A1200 and Philips 8833 MkII monitor. I find it impossible to use even with an anti-glair filter due to the screen flicker as this gives me headaches.

Can you please help? After reading some of his back issues of AUI I found a feature in the June 1995 issue about monitors. Being a layman to screen/picture technology it seems to me to this is interlacing. Can the Amiga generate a high quality picture output and would my present monitor show it, or do I need to change monitor and/or computer/or add flicker fix it device/software?

Please find book of stamps attached.

Mr. C. P. Kingston

Dear Mr. Kingston,

Sorry to say this, but we found no stamps. We don't mind sending out a reply, PROVIDING that there is a stamped addressed envelope supplied. Anything else just gets used as scrap paper or thrown into the bin. We just don't have the time to address envelopes, or manage the supply of stationary with my current workload for Amiga Answers.

Your flicker is due to the combination of the monitor and the screenmode that you have selected.

Open up preferences and select screenmode. Select the PAL LOW RES mode. This will give you a nice clear flicker free image.

If you want to use the higher res images, then you will need a multi sync monitor. The important

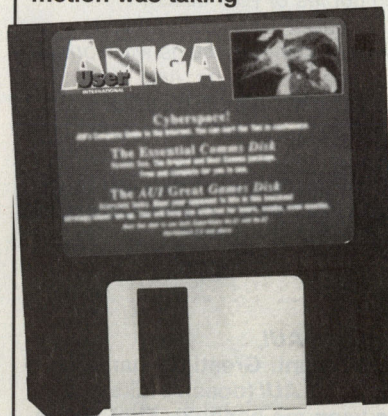
thing to know is that such a monitor must sync down to 15kHz to be able to display all the Amiga video modes. Microvitec produce such a monitor. (Note that most, if not all, PC monitors will only sync down to about 30kHz)

VIDEO



Dear AUI,

Two years ago I purchased a Microvitec 1438 monitor. It worked perfectly, showing all normal Amiga modes as well as DblPAL and NTSC without flicker. About a year after I got the monitor I sent my computer away to get a hard drive fitted. When I got the computer back I turned it on and waited for Workbench to load. The screen was in 640x256 so I went to the Screenmode prefs to change to DblPAL 640x 512. But when the monitor switched to the new mode, the entire display started to move smoothly in a wave motion (resembling the WB hack Wavebench). I have not been able to correct this problem. On closer inspection of the 640x256 screens that the Amiga displays as standard, I noticed that the same wave motion was taking



place here as well, but to a lesser extent (barely noticeable). NTSC screens (like when you press a key on the boot selection screen) also shudder in an unusable way. I tested the monitor on an old A500 and the screen still slowly waved in 640x256, so the problem appears to be within the monitor as opposed to a display chip in my A1200.

What do you think could have caused this malfunction? Could it be that a display chip in the A1200 was damaged during the hard drive installation, and sent a damaging signal to the monitor

when I connected the two? Or could the problem be a result of a power-cut/surge/spike, as featured in your 'Keep on running' feature in AUI July 96? On the page before the feature an ASC advert shows a picture of a computer suffering a surge. The monitor suggests some of the things that can go wrong, including the phrases 'VDU distortion' and 'Screen Flicker'.

Do you think that the monitor is repairable? If so, how much would it cost? I would be very very grateful if you or an AUI reader would be able to advise me on this problem.

Joseph Robinson Hants.

Dear Joseph,

It is highly unlikely that the hard drive installation has caused any problems. What you are describing is good old fashioned hum. This is simply a 50Hz signal getting into the monitor circuit somehow.

There are a couple of possibilities, the first is that the monitor has developed a fault, if so the cost of repair will depend on the fault. It's not possible to say how much, but some repair houses offer fixed cost repairs, so have a look around.

Secondly, you might have a transformer near the monitor. Is the A1200 power brick out of the way? Make sure that there are no other electrical cables running near the monitor.

You might have a broken shield wire inside the monitor to Amiga lead. (Especially if you used the same lead to test the A500 and the monitor on).

Surges and spikes don't cause this type of problem (normally), they do cause random crashes and sometimes they can blow up things, but that does take quite a lot of energy. (I once had a rack of comms equipment damaged due to a voltage spike. As the spike was caused by a nearby lightning strike it's not surprising).

OTHER



Dear AUI,

I wrote to AUI some three years past and was fortunate to have the letter printed, my moment of triumph was spoilt though by the miss-spelling of my name. Anyway, here we go again.

1). I am in need of a little

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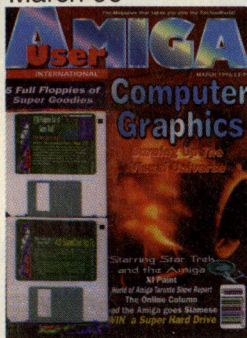
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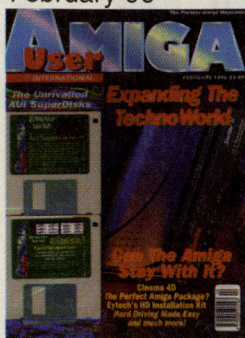
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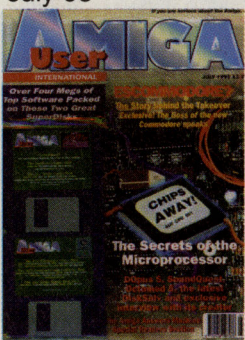
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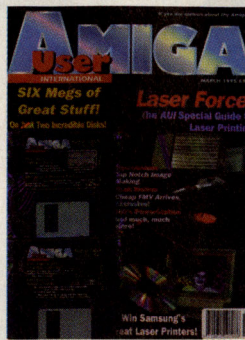
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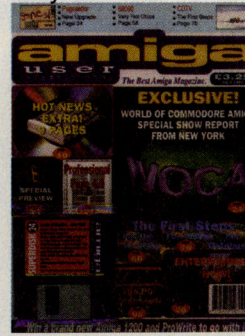
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advice with regard to the prospective purchase of a Zip, SyQuest, or similar SCSI storage device. Which one please?

2). It is my intention to store all the AUI SuperDisks and previous disks on one or more disks instead of surrounding myself with umpteen disk boxes. Will it be possible to do so and then unpack them as required, or will I have to unpack them and then store each month separately, or is there some other way?

3). I use Final Writer 4 for letters etc., and the more I use it, the more I like it but for one small problem, after every page, whether it be a one page letter or many paged document, FW4 issues a blank page no matter what I do. With or without Citizen Setup and Citizen Print Manager running, one extra page for every written page every time. I have tried other WP's and Text Editors and they work okay. I have spoken to Softwood, but they are unable to offer a solution. Can you help?

Ron Newsam
East Sussex

Dear Ron,
Sorry about the spelling of your name last time, it was probably my typing! Just to make you feel a little better I used to have about 30 examples of how not to spell my name!

The choice of storage device depends on your pocket. Consider the JAZ as well. You will have read a review of a couple of such drives in AUI by the time you read this. They all work, and vary only in cost. I use the Panasonic PD drive, as this is a CD drive as well I find it very useful.

When dealing with the SuperDisks, I would unpack them manually and then store them. You could decide to compress them, or use whatever method you prefer.

Your printer problem seems to indicate that you have set your page length slightly too long, causing the printer to eject a page, and then FW4 to do the same. That's the area to check out.

OTHER



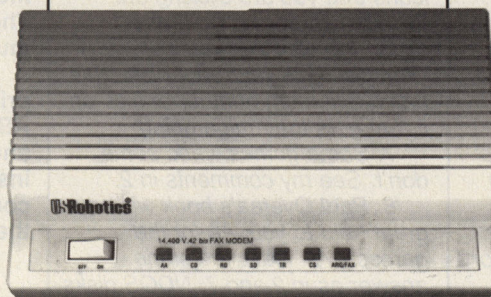
Dear AUI,
Please solve this one for me, as it's driving me mad!

At work, we've an Internet connection, and I've downloaded a few Amiga demos, utilities and the like. As we use mostly PCs here, I transfer the archives onto Amiga disks using CrossDos or MessySid. All is well until I try to expand the LhAs, at which point either the Amiga shuts down totally, or (with Sid) a box comes up, saying it can't unarchive the file. "File not found" or something to that effect, despite it being highlighted, and its size and type displayed on the screen.

I've tried all the unarchiving programs I have, and run them on a couple of Workbench clones. I even moved the archives into RAM, where there's plenty of room, and tried expanding them there, but no soap. And I'm the only Amiga owner in the building, so I can't ask anyone else here what's going on. Thinking maybe the PC formatted disks were possibly to blame, I formatted them using the PC, Amiga, and even PC Exchange on the office Mac. This made no difference at all, but I was getting desperate. I doubt it could be a problem with the machine or the disks, as this is the only trouble I've ever had with either. It's a bog-standard, pre-Escm (old) A1200, no hard drive (yet), no second disk drive, no extra RAM, or accelerator board.

Something that would make my life maybe a little easier would be a utility to read/write Amiga formatted disks on either a PC or Mac. Does such a thing exist?

Wayne Ryder
London



Dear Wayne,
Thanks for sending me a disk with a couple of programs on it to try out. I'm pleased to say that there is absolutely nothing wrong with them, as you can see from your disk, I've unarced the programs without any bother at all.

The problem must be down to your archivers, or how you set them up. I would suggest that you

always try unarcing from the Shell when things like this happen, that takes a few unknowns out of the loop, and often gives you a few clues as where to look.

I've popped a copy of the LhA archiver I use on the disk, compare this with your version, and I expect that this is where the problem is.

The disk controllers in the PC and Mac are not up to the task of reading/writing Amiga disks.

OTHER



Dear AUI,
Hardware details are as follows:-

Amiga A4000/030, with 18Mb RAM and co-processor. 80 Mb Hard drive with Workbench and Work partitions plus a GVP 8Up SCSI board controlling, at the moment, a 44Mb SyQuest drive and a 540Mb hard drive with five partitions. HP 550C Printer and SupraFAXmodem 288.

My problem is with your cover disks.

Having installed and mounted DiskSpare as per instructions, it appears that I can only read the first disk, i.e. this month, AUI 79, but not AUI 80. In fact, because I have inhibited non-dos disks from appearing, through DirOpus, then no icon appears at all.

What have I done wrong? DiskSpare is apparently operating, according to Scout anyway.

My next question is to do with a PROGDIR requester that appears when I try to run

Organiser. Organiser has run correctly ever since I installed it, but recently has been throwing up a requester to insert PROGDIR in any drive. Have I deleted something from Workbench or what? No other program has been affected and none produce this requester.

By the way I am having fun with my new monitor, a Samsung SyncMaster 15GLi and screen modes. I realise that I cannot see normal Amiga screens that need 15kHz sync, but running DirOpus 5 as a Workbench Clone screen, (for which I use Multiscan Productivity), produces some quite strange results with screens stacked one behind the other. Have you any tips, and is there any software around or

forthcoming to allow 15kHz screens to be viewable on the Samsung. I have heard some whispers!

Thank you for a really excellent magazine. I note that it has gotten decidedly slimmer over the past months, but the contents are great and the articles very well written - better not go over the top though.

R. Stephenson
Preston

Dear R. Stephenson,

If you have installed Diskspare correctly then it should work. Don't use any fancy file managers like DOpus, in fact don't even load them as that might be the cause of the trouble. Always start from basics and work from the Shell.

Open a Shell, and make sure that you have a diskspare disk in the drive and type `cd ds0: [return]`. If that does not work then you have something wrong with your diskspare installation.

Progrid is an assign that Organiser needs, perhaps you have managed to delete it. The simple cure is to re-install from the disk.

I spotted something a while ago on a flicker fixer, but I've not seen anything else since. I seem to recall that the price was quite high. Keep an eye on the news pages. AUI will put any such announcements there.

The page count of AUI is fairly stable, at 100 pages, and has done so for the past 6 or 7 issues. The amount of editorial has not been reduced. It is a matter of the advertising being less because of the sad situation of the Amiga through the Escm and VISCorp periods.

OTHER



Dear AUI,

I have an Amiga A600 with a 1Mb trapdoor expansion and a 250Mb IBM hard drive. Before I go any further I must tell you that my knowledge of computers is somewhat limited. My son has a lot of games that he plays on it, but now he is in high school he uses it a lot for his work, so I thought it a good idea to buy him a Citizen ABC colour printer and with that Wordworth v1.2. Unfortunately I was not aware that Wordworth takes approx. 10 swapping of disks to load it, hence the reason I bought the hard drive. But sadly things are not going

all that well with the hard drive, and to be frank I'm getting a bit peeved with the whole business. I wrote to Amiga Format explained everything and asked them a few questions. I sent a pre-paid envelope in the hope they would just jot the replies on the back of my letter and return it, sadly to date some 2 months later they have not replied. Could you please help me?

1) I have Deluxe Paint III installed on the hard drive and it was installed as per the disks instructions. When I try to use it sometimes it will ask me to insert a certain disk in DF0. Why is this, when it already has the information on the hard drive?

2) My partitions are DH0workbench - 10 Mb. DH1work - 120Mb. DH2games - 120Mb. I want to copy a games installer disk on to my games partition. I created a drawer and called it "HD" as I did not want to have my games screen all cluttered up with lots of games installer icons, and any way I wouldn't know what to delete if anything went wrong. I have tried this through the Shell, but cannot get it to accept it. I know that I am doing something wrong, but what? I have enclosed a printout of the window. No don't laugh, I'm pulling what little hair I have left out of my head!

3) Why is it when I copy a disk to hard drive using the Shell and type "COPY DF0: TO DH1: it will copy only the icons. I cannot open any drawers or icons? Do I have to put "ALL" after DH1:?

4) When I click on a tool icon and get a requester saying "ENTER COMMAND ARGUMENTS". Give me a clue as to what I put there just to see what happens.

5) When I type in the Shell, "DHO:UTILITIES/CLOCK" or what ever, just to list its files, a requester then tells me that it is an unknown command.

6) When I try to back up the hard drive through the hard drive back up icon on Extras, and when all the files have been listed and backed up a requester the comes up for me to "INSERT VOL: WORK IN ANY DRIVE" then another saying "DIRECTORY ERROR" then "BACK UP COMPLETED" even though I may change the partition name to anything it will still say "INSERT VOL: WORK IN ANY DRIVE". While it is

listing and backing up the files, it will show that a particular action will take so many disks. So say if I back-up Workbench from hard drive to disk, it will request up to two and a half disks to complete. How is this when Workbench is only 1 disk? I have added nothing to it in the hard drive.

7) I still have quite a few games that I can install on to the hard drive, but they won't run. Do I have to make up a user startup script. How do I do that? I know how to look at the files, but how do I get in to them to alter them if I wished?

8) What of the games that wont install on the hard drive and come up with ..NDOS..? I have no installers for them and there aren't any apparently. What can I do with them?

I know this is an awful lot of questions to ask of you and I know that I am on the wrong track altogether, but I do hope you can spare the time to reply. I noticed in the July issue of AUI there was an ad for a new book by Paul Overaa. A guide for absolute beginners. I intend to buy this book for just one last shot. After that who knows, I shouldn't give up the day job anyway!

Many thanks in anticipation,
Bill Gray
South Wirral

Dear Bill,

1. This should not happen, I suspect that you have an Icon with a tooltip that is looking for the floppy. You need to tie things down a little better before I can zero in on the problem. Things might improve after you read the rest of this reply.

2. What's a games installer disk? There is no such thing in my mind. Games are a law unto themselves. Some can be copied to hard drive, some provide an installer program to do the job (hopefully), others cannot be installed to hard drive at all. You really are at the mercy of the game programmers.

Creating a separate drawer for each game would be the better method, putting all these into the games partition.

The thing that I have spotted is your hard drive names. DH1Work etc. The Amiga knows things by their name. When a program looks for Work: it is looking for a disk called Work. The colon indicates that it is a 'device' i.e. a physical lump of hardware. (usually) I suggest that you rename your partitions as Workbench, Work

and Games. This will make things easier. You can also use the ASSIGN command to make a temporary device name. This is useful for checking things out.

ASSIGN Work: dh0work:
[return]

will make the Amiga think that your partition is also called Work.

3. Copying a disk with the Shell. There are a few methods that you can use. The first is to drag the disk icon into the drawer where you want it. A directory utility is another method. With the Shell you need to give the precise destinations which is where you have made a mistake.

Copy DF0: to
dh1work:mydrawer ALL

This will copy all the files and subdirectories on DF0: into the drawer called mydrawer on your dh1work: partition. Pay close attention to the device names and colons.

4. By a tool icon, I suppose you mean the hammer. This is a 'pretend' icon. Select window/show/only icons and they will vanish. These are the commands and programs like copy, so if you find copy and click on the hammer you will get the requester. You would type in the same things there as you would on the Shell input line.

5. This is because you are telling the Amiga to execute the program called clock. Try DIR DH0workbench:utilities [return]. Or for more information use LIST instead of DIR.

6. The backup is suffering from the partition name problem. Again check the default tooltips on the icons that you are clicking on. Workbench comes on 5 or 6 disks, the disk that you call Workbench is your boot disk. This has a minimum number of files on it that gets the Amiga going.

7. Some games work, some don't. See my comments in 2.

8. Paul Overaa's book will be a great help to you. As for the games, well that's the same answer as in 2 and 7. NDOS disks normally have special disk formats. This is all part of the anti copying efforts, designed to stop people doing just what you are trying to do, copy the disks.

Your main problem is that you are trying to run before you can walk.

The first thing I would suggest is that you start from scratch. You should have been supplied with some sort of hard drive installation

disk. This should have copied Workbench and set up your drive correctly. It sounds as if it would be worth going through that again. Pay careful attention to the device names.

Hard drives can have two names per partition. The first is the hardware device name, normally DH0:, DH1: etc. The second is the Volume name such as Work:. The volume name is the one that you normally work with.

The next thing to do is to dig out your AUI back issues and read the toolbox series, and the other beginners series, this will clear up lots of problems. The 'Cracking the Shell' series is going to be useful to you as well.

OTHER



Dear AUI,

Some time ago we bought an A500 Plus for our daughter which replaced her Commodore 64. The set up has reached this:

Hardware - A500 Plus with external drive, Commodore 1084S monitor, and Citizen ABC 24 colour printer (just bought).

As our daughter is now taking computer studies at school we wonder if 512k is enough? Many programs now require 1Mb of RAM and you have quoted 2Mb as an up-to-date minimum. Games can come on 5 or more disks which all require swapping during play. Additional memory and an external drive are desirable, but what is necessary? While I am not afraid to open the lid to fit bits in, the bottomless pit of money we have is known as... The Overdraft... so desirable must also be reasonable!

Finally, how do I install the printer driver bought with the ABC into Workbench, Protext and DPaint? I can't follow the instructions, so I have configured them for Epson 24 at the moment.

Ian MacLeod
Norfolk

Dear Ian,

The Amiga is very good in working with small amounts of memory, but 512k is a bit limiting. Anyway, the A500 Plus came with 1Mb of chip RAM as standard (upgradeable to 2Mb via the trapdoor). The best upgrade I would suggest is an A590 hard drive (or lookalike). This will give you a real boost to the usability of

the Amiga, as well as having the option to install extra RAM of the fast variety.

The big problem is going to be what your daughter needs to do in her computer studies, most schools will use the PC rather than the Amiga, but the Amiga can be made to read PC disks, so writing things up and so on is possible.

The printer drivers... Protext has its own drivers so you will have to select the nearest available.

On the Amiga, you need to copy the printer driver into your DEVS:printers drawer, and then run prefs to select it. As you are running from floppy you might find that you will have to delete something in order to fit the driver onto your boot disk, so please ONLY work on copies of your disks.

Read my toolbox 'Who lives where' page 77 March 96 AUI, that will give you the basic of moving files about and where to put things.

OTHER



Dear AUI,

Both my son and daughter had Amiga A500's though my son's was a Plus version. The machines were used constantly by their children with no trouble. I persuaded them to upgrade to the A1200 as I have an A1200, external disk drive, Hawk RAM Board Accelerator, and Citizen Swift 240C printer. I am very pleased with its performance.

My daughter has an A1200 WB3.1, external disk drive, and Citizen Swift 240 printer

My son, the same set up, except the printer is an ABC.

The problem!! Games specially purchased for the A1200, Aladdin for example, will run on my set up, but not on the 3.1 machines, as it was because of my insistence that they would benefit from the upgrade. I feel the trials and tribulations they and my grandchildren are having is my fault.

Alan Rollinson
Plymouth

Dear Alan,

There are differences between the two machines, and some programs do have problems. You could try installing your Workbench onto their machines,

but I doubt if this will help much if any. I suspect that the problem will be within the kickstart ROM inside the machine. You are very much at the mercy of the games programmers in situations like this. There are programs such as runt that we put on a SuperDisk (No.38) some time ago, such programs sometimes help, but not always. The only other option is to try contacting the game publisher as see if they have a 'fix'

OTHER



Dear AUI

I own an Amiga A500 WB1.3 with 5Mb RAM; GVP 40Mb hard drive; Citizen Swift 24 printer and Philips monitor still hard at work. I do have a Workbench 2 upgrade with a ROM switch kit for this beast, but as yet have not dared to convert in case I put it out of action permanently. I will get around to it though once the A1200 is running to my satisfaction.

I have just purchased, second hand, an Amiga A1200. The buy was to enable me to read and enjoy the latest disk based software available under WB2 and 3. All is well with the machine except the annoying factor of having to continually replace disks when attempting to load a program or read a file.

I need to enhance the A1200 with extra RAM together with a compatible multi-sync monitor both at a reasonable cost. Can you advise?

I intend purchasing the Squirrel interface and a Zip 100 drive unless you can offer advice for an alternative SCSI hard drive to the Zip 100.

There are a couple of software packages I use with the WB1.3 set-up which I find extremely useful and am looking for an upgrade/alternative to use with the A1200:- AmiBack and AmiBack Tools and Direct Work 1.6

Martin Davis
Kent

Dear Martin,

I think that you will find that Microvitec make the only monitors that will sync down to the normal Amiga screen modes. You must have a low sync speed of 15kHz in order to use the normal PAL modes. Most so called multisyncs only get down to 30kHz or so.

If you can, consider an internal SCSI interface, as this will auto boot rather than needing a floppy to boot from. Such interfaces often have memory expansion as well. I have no real preference for memory units. Most clash with the PCMCIA slot address, so beware of that if you ever intend to use it (i.e. you get a Squirrel). You will get problems if you install more than 4Mb and want to use the PCMCIA.

SCSI is SCSI. If you find a cheap fixed hard drive, you can press it into service. I've nothing against the Zip. They seem to be nice and quick (for a removal media unit that is), but the SyQuest EZ drive is faster and cheaper.

AmiBack runs quite happily on WB3, I use it myself. I would expect that Amiback tools would do the same.

Direct Work? Do you mean DirWork - a directory utility? If so, I think that it will work as well. If not, there are plenty of options open to you. DOpus is one, ABCdir is another (see the SuperDisks). I use SID, which is very, very old now, but it works quite happily on my A4000 and it does everything I need it to do.

COVERDISK

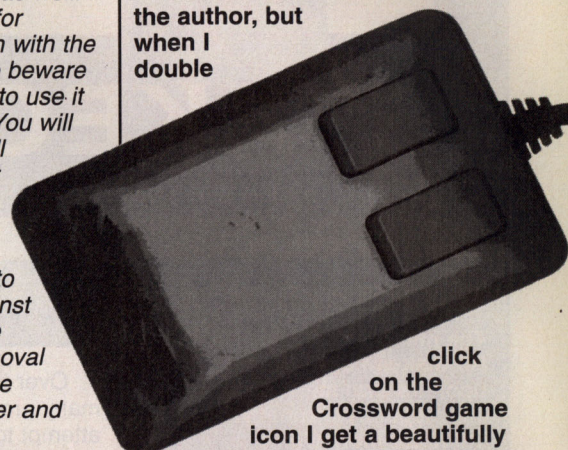


Dear AUI,

I enclose a stamped addressed envelope and hope you can help with a problem I have with August's SuperDisks. I have installed five of the disks successfully onto DH0: (Amiga A1200, 120Mb HD, 50MHz CPU). From drawer AUIAug96c I have used Phone locator which works perfectly. So I assume there is no problem with the installation processes.

However, from AUIAug96b I get a problem with Crossword. When I double click on the drawer icon I get the window with the contents icons. A double click on the Crossword icon opens the window with the two icons. Crossword, and

Read me. I can open the Read me one and view the contents so understand how to load and play the demo, and how to get the full version from the author, but when I double



click on the Crossword game icon I get a beautifully coloured System Message that says "Please insert Volume D_Solve Crossword in any drive There are two buttons - Retry' and Cancel but - guess what? The screen is locked up; there is no mouse for me to point at either button, and the only thing I can do is reset and do something else.

What is the software asking for? Where is it, or where should it be, and how do I find it and place it where the game will find it?

W. H. Sharman
Derbyshire

Dear W. H. Sharman,
I think you should read my toolboxes, this is a simple assignment problem. There are two methods that you can use to sort this out. The first is to install the program onto floppy, and rename the floppy to D_Solve Crossword, paying careful attention to the spelling. The second is to use the Assign command and create a logical drive, i.e.

Assign "D_Solve Crossword:" yourdrive:yourdirectory/wherever_you_installed_it.

So if you installed the program in DH0:, in the drawer progs, within the crossword drawer the command would be:

Assign "D_Solve Crossword:" dh0:progs/crossword

Pressing escape clears this badly programmed requester that's generated by AMOS. AUI

When writing to Amiga Answers please include as much information as possible about your system and about the software/hardware you are running. This will help determine what your problem might be and possibly its solution!

Send your questions to:

Amiga Answers,
Amiga User International
Unit 2, Utopia Village,
7 Chalcot Road
London NW1 8LX
or E-MAIL:
amigauser@cix.compulink.co.uk

THE PD STAKEOUT

Why F1 is A1

David Ward finds some of the more expensive PD titles, and experiences the delights of quality shareware.

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 A1200 with a basic 2 megs of chip RAM. Check with your PD supplier that the disks you are ordering are compatible with your Amiga.

PD OR ShareWare?

All freely distributable software comes under the rather deceptive 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 fairly 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.

Grafix

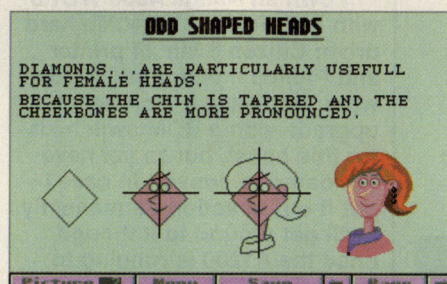
Over the years there have been many programmes on television that attempt to show the viewer how to paint and draw. Far too often the first program in the series covers the basics very quickly and then we're off to a location to paint a pretty picture. In my own experience, I found local art classes tended to force the beginner into life studies before they had even learnt how to properly hold a pencil! (And I did find standing around naked in the cold a chilling and only relatively profitable experience.)

The best by far of the TV shows have been those hosted by Rolf Harris, who proves that you can do effective painting with just a few blobs, and a series that was on Channel 4 last year in which an American cartoonist showed you how to build complex pictures by using simple shapes as a framework on which to hang characters and objects.

Grafix, a two disk set from F1, does the same. Grafix is a tutorial package that takes you step by step through all the techniques necessary for you to create competent pictures and animations - even if you claim you cannot draw.

Most of the on-disk tutorial is also repeated in the printed manual; so you may ask why bother with the disks when I can read the book? The advantage of the disk is that you can save out the examples given and load them into your favourite (or soon to become favourite) art package. Here you can try to copy the methods used or experiment with those already

given. Grafix also details animation techniques and these can hardly be shown on a static printed page!



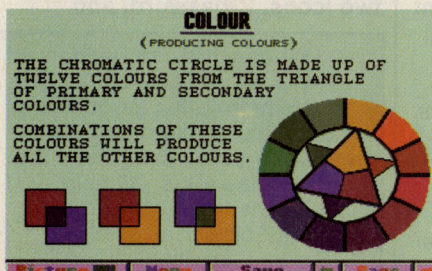
The tutorial begins with the basic methods of drawing figures... not the classical Rubens types, but more the newspaper cartoon style. Heads, features, hands and feet are built up from simple geometric shapes, over which the 'flesh' is laid to complete your characters. As well as humans, animals are shown too, so you can draw your own Tom & Jerry-like stills.

To stop your pictures looking 'flat', the tutorial explains the use of perspective to add depth, but it also shows how colour can be used to do this. Brighter colours to the front, and darker in the 'distance' (see the DPaint picture for the 'Works of Art' review in this *AUI*).

Animation, which is not often covered in commercial 'learn to draw' books or programmes, is supplemented with details on how to design text and use dithering to increase the apparent numbers of colours in pictures. "Real" artists can mix paints, but computer users have to use different methods to achieve the range of colours they require from a limited palette. The dedicated computer artists can manage 128 different shades from just 16 solid colours if they try.

Grafix is the ideal way to learn, or even improve, artistic skills. The booklet states it is "The only art tutor you'll ever need" and we agree wholeheartedly.

93%



This month we are examining some of the titles from F1 Software. Unlike the usual PD disks from most libraries, which often retail about £1 each, F1 disk's are much more expensive. There are several good reasons for this; the software is often of a substantially higher quality than run-of-the-mill PD. Some of the titles also have an accompanying printed manual; and most importantly, the author of the software gets a percentage of the asking price.

Far too often a programmer spends many hours creating the best utility since shareware was invented only to find that their efforts go unrewarded except for the respect or even fame they receive from those who acknowledge their abilities. There are plenty of users who will take, but not give. And that's not cricket, or even sensible programming practice. Fame is not enough, and rightly so, for some programmers.

The F1 scheme was set up to correct this imbalance. So instead of the authors releasing their work into the shareware world, having it copied and distributed by the PD libraries and magazine coverdisks, and then sitting back and fruitlessly awaiting the material rewards to come rolling in, F1 pay a royalty on every package sold. That way an author is guaranteed at least some sort of payment for the hours of free-time spent coding, and recompense for the watts used by their Amiga.

V12-PD

Dept AUI
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01507 450114

10 PD DISKS FOR A FIVER FROM A LIBRARY OF 14,000+, BLANK DISKS WITH LABELS AT £2.50 FOR 10, TRADE AND BULK DEALS ON BLANKS MUCH, MUCH CHEAPER THAN ANYWHERE ELSE IN THIS MAGAZINE!

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Other services include flatbed scanning, digitizing, sound sampling, membership, PD swaps, foreign PD available in large numbers, brand new and direct from the authors! Our membership for one years' Catdisk update (24 disks!) is only £6.00, get the latest PD available within minutes of it being released, and our fab disks for year without bothering to ask for it each month. Platinum membership is 15.00, and entitles you to 10% off PD, a year's Catdisks as they're released, 30% off scanning, 30% off blanks as PD, 25% off digitizing, 30% off sampling, etc, etc, etc! Don't miss it, or you'll cry for days!!!

Oh, for the wings, for the wings of a dove. . . la la la. . .

Another instalment of the best Amiga style ad around! Will Jane keep the baby, will John lose the contract, has John and Julie's love gone forever, will there ever be a cast member that's name doesn't start with J. . . find out next week. . .

Ok, so what has the officially number one PD library got a-happening this month? Well, we start with an apology. We had a misprint on our official award, we are:

IAT PD COMPANY OF THE YEAR, 1996.

Sorry everyone who wrote in to tell us, and thanks again to all those thousands who voted us best by a big margin! Anyway, now that's cleared up (without cream) we'll get on shall we?

Well, what on earth makes us the best library since sliced, err, disks? Well, there's:

* The lowest prices in this magazine by a very long way (anywhere else with 10 disk packs for 2.50, I don't think so...)

* 24 hour turnaround. With our turbo powered PD we always outstrip the competition for speed. We're not called V12 for nothing!

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Here's our revised prices, as many of you wanted bulk discounts, now you've got them! Ain't we nice. . . amazingly, we supply the disks on these prices to, this is why we're voted number one and not some rip off 1-3 quid a disk company. Hurrah!

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So now we're the best, we can flaunt our undoubted superiority and simply look extremely smug with ourselves all day, wrong! We want to keep the title and work like little squirrels or other hard working little fluffy mammals to keep it! Prices continue to be lethally low, 24hr turnaround is now guaranteed or you get free disks for every day's delay(!), and new titles keep coming (oo-er) in the Catdisk. There's noone better us, it's just not possible I'm afraid. . .

And a message to all Workbench 1.3 users, we still support your system and have the largest 1.3 collection in the world, our catdisk works fine from scratch on 1.3, so give the old friend a boot with some new excitement! Of course, WB2 and AGA Amiga owners are supported better than a pig on stilts too, everyone's welcome, everyone's catered for. Gor blimey cav'na, get on the V12 lurve train and go to heaven!

And of course, the first step into V12 Palace (take the 12th turn off from the M180) is the Catdisks. What do you want from a Catdisk, cos it's likely we will have incorporated it into this ballistic little double barrelled baby! Over 45,000 lines of text, it will automatically detect what model of Amiga it is in and change as it boots to use the system to best effect. Have an HD and want to install both disks to it? No problem, it's only one mouse click away, as well as another icon to remove it all too! Don't have an HD but want to install it to RAM instead? No problem either, optional RAM installation for over 1500% speed increase, and all in 1.5 meg of RAM (chip or fast!) Have the standard 1 meg and want to run it combined from ram and floppy? No problem either!! It will install certain regularly used parts of the cat for a 100% increase in speed! A mouse driven interface, animations, music, pics, still hires laced graphics (even on an A500!) and the humorous listings that we are well known for. Oh go on, send for it. It's got games too now!!!

And here's the gen on the newest 10 disk packs for 2.50 incl p&p!

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All packs are 10 disks, not compressed onto one or anything scabby like that, and all includes postage and packaging + a free Catdisk! We're waiting for everyone else to match this offer, we're here to show you that we can supply you with 10 disks for the price that most libraries send you 2, it really is true! As Michael Jackson would say, Ach, Yah! (or summat)! Packs are not limited to one each, you can have all ten if you wish or 10 of each if you are slightly mad! Please specify whether you want the Catdisk or not with packs as some people will already have them from previous orders.

For a Catdisk, ring the number above, or write and ask. It's free this month so get it and start seeing how a PD company should be! What have you got to lose? We don't bite you know.

Greetings for this month go out to Wolfman, Topdog, Freak and Budda of OJ Simpson, Stefan Mansier, The Beyond The Frontier Crew (Hi), Rob Davaiu, Rigsby, Gunterheim Supplies, Madonna, Kylie, Danni, Bon Jovi, Kiss, Andy Gibson (DMC Deserves 99%), Trousers MC Bernie, Jacob Grizzly, Bentley Belisha and Frilly Midge, and all those people we've typically forgotten.

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CONTINUED

EdWord Pro

AUI receives lots of letters (handwritten, of course) from Amiga users asking about word-processing. Unfortunately, many of these users are still running Amigas with 1Mb of memory, Workbench 1.3, and a single floppy drive. For them, the latest versions of Wordworth or Final Writer are unusable, so we often recommend the basic, but functional, EdWord to get them going.

Martin Reddy's "Language Editor", as he likes to call his program, has frequently appeared on magazine coverdisks, but now F1 has brought out his "Professional" version with more advanced features.



ARCADE DARTS

F1 software does not limit itself to utilities, they also have a selection of games. Arcade Darts is one title that caught our eye purely for the quality of the graphics used. The title says it all really. You are presented with a dartboard, and a digitized hand and arm holding a dart. Using the mouse you can almost control the aim and power of the thrown arrow.

Of course, the computer player has no such difficulty, but the Amiga is not 180% perfect every time. Even she, with her

manly arm, will occasionally lob a dart off-board or into the 1 wedge.

The traditional games can be played, such as 301 or 501, along with the optional rules such as starting on a double and finishing on a double. There are also the variants like "Round the board" and "Shanghai", plus the chance to have two human players.

Give me the real thing any time (I throw 28g tungstens if you ask), but Arcade Darts was certainly a challenge.

68%

It doesn't have a spell-checker, is not WYSIWYG, and it doesn't do graphics, but it is a very good text editor with many useful features. For the writer these include all the usual cut and paste facilities, block marking and bookmarks, powerful printer set-up, alphabetical sorting of paragraphs, and multiple document editing. But the most important feature is auto-backup. There is nothing worse than having written a pageful of wonderful prose, have your machine crash on you, and find you have lost it because you forgot to save it. EdWord will do this easily forgotten task for you.

There is nothing worse than having written a pageful of wonderful prose, to have your machine crash on you.

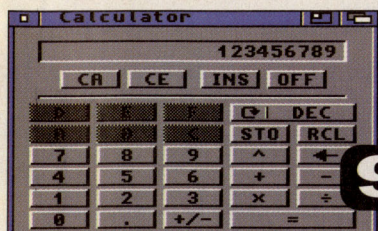
For the programmer, EdWord has many benefits: auto-indent, so you can separate blocks of code; keywords, which allows you to auto-case the tokenised words used in languages like BASIC; a built-in calculator; and the option to run DOS commands.

For the more confident user there is an ARexx port, a macro and script facility, and user defined commands.

EdWord is so good I am wondering why I am

not using it instead of my current text editor! Maybe I will in future.

97%



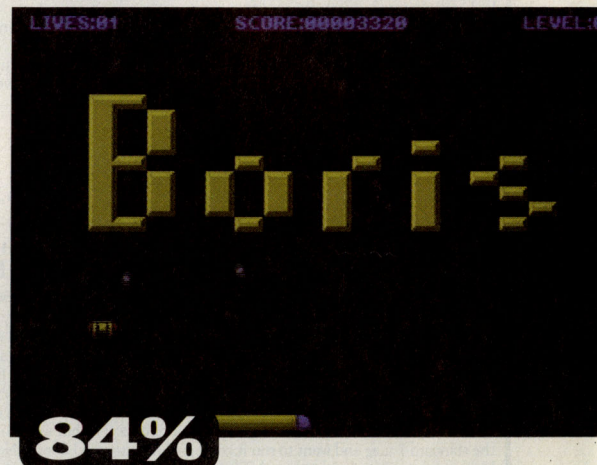
Boris Ball

It's amazing how some of the early games for home computers and consoles are still popular. There are no end of Pacman clones and Space Invader lookalikes. But one of the other enduring genres is the 'Breakout' style game where the player has a 'paddle' or bat which is used to reflect a bouncing ball into an overhead 'wall' of coloured bricks.

Boris Ball is just such a game. As each brick is hit, points are scored and the occasional bonus icon released. These can alter the size of your bat, reverse its movement, or even allow you a second ball in play. The 'walls' come in different shapes, sizes, and constitutions, so each level is varied. Space Invaders, on the other hand, was so repetitive that you could easily play the game on auto-pilot mode with your brain switched off.

So what's the point of these entertainments? The challenge of destroying the walls without losing a life is certainly the main selling point, but then there is also the subtle improvements to hand/eye co-ordination that these games may impart.

Boris Ball, and its extra levels disk, definitely exercises the grey cells or the motor functions in the split-second reflex decisions required for moving the mouse.



Contacts for PD reviewed in this AUI

F1
31 Wellington Road
Exeter
Devon, EX2 9DU
Tel. 01392 493580

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. The address is:
The PD Stakeout, Amiga User International, Unit 2, Utopia Village, 7 Chalcot Road London NW1 8LX

Write to Reply

The French Option

This month the biliousness of the Bud has been tamed. The Vennos one is all smiles when he gets offered, in the language of cuisine, a taste of the French tongue and succumbs to the French option in games played by mutant camel drivers.

Dear AUI,

I have been prompted to write to you enclosing a copy of a disk I have compiled following problems I (and several of my friends) have encountered de-compressing coverdisks in the hope that it may be of some assistance (even if only the text files) to your readers out there. I now use the compression system to back-up my system programs in case of disasters, e.g. my configured version of DOPUS is about 1.5Mb and compresses to 705k which easily fits on a floppy. Now if my hard drive goes down, all I have to do is re-install Workbench & DOPUS (basic version), and I can re-install my entire system in a matter of minutes rather than hours.

Thank you for Diskspare and LZX on your previous coverdisks, without which this disk wouldn't have been possible. I take no credit for any program on this disk, it is merely intended to help my fellow Amiga fanatics in the same state of knowledge as I was only a couple of years back.

My system consists of an A1200, 230Mb internal HD, Blizzard IV with 50MHz FPU and 16Mb RAM, Archos Overdrive 420Mb external HD, Philips 8833 monitor, Power Computing CD-ROM with DataFlyer SCSI interface, Power Computing external XL high density drive, and a Pro-Grab 24RT (which I will heartily recommend to anyone with a camcorder and extra memory (necessary). The quality of scan which this piece of kit is capable of (with a little bit of practice) has to be seen to be believed.

I, like many of your readers have encountered power supply problems, but until recently I have managed okay. I was running all the equipment above using a standard A1200 power supply with no problems until I added a SCSI interface to the Blizzard board (which incidentally I have since returned faulty for a refund, though the fault wasn't the cause of the power supply problems). The first sign I had was the computer would not boot with the external floppy switched on. I

am now using a Goliath PSU and have had no more problems, but it just goes to show how much standard power supplies can vary when other readers have problems with far less equipment running. In case it is of any help to your readers, the Blizzard IV 50MHz board works perfectly with no PCMCIA conflicts using 16Mb RAM, this includes the Squirrel interface, Overdrive, & Prograb. I am, by the way, having some minor problems configuring the software supplied with the DataFlyer to run some CD's correctly and if I can't solve them I may well go back to using the Squirrel, although that makes it inconvenient for using the Overdrive which is why I bought it in the first place. I will let you know the outcome as and when (and if) I get it sorted.

I noticed in your reply to Brian Corr of Fife (July 96), that the coverdisk doesn't recognize the Overdrive. This is true, but if he installs DOPUS on the Overdrive and boots from it, he can then use DOPUS to de-compress direct. By the way, this system also solves the problem of faulty coverdisks, as long as the archive drawers are intact then all programs can still be retrieved, saving the hassle of sending the disks back.

If you do decide to include the disk on a future coverdisk, then I feel it would be in your readers interests to include it in its entirety for the benefit of those readers who for some reason have missed the previous coverdisks containing Diskspare & LZX. However, you may feel that they shouldn't have missed the issues, (but please consider possible new readers).

I have AUI as a standing order at my newsagent and have done for about two years. I sometimes buy other mags as well, but recently I have noticed a growing trend towards (or should I say away from) sale or return. Consequently the majority of smaller newsagents (in Peterborough at least) will no longer stock these mags. Far be it from me to try to influence the way your mags are

distributed, but surely you can see that if the mags are not on the shelf then no-one can buy them. Folks less Amiga orientated than myself are just not going to bother making a special journey into the city centre to John Menzies or Smiths and this is not helping the Amiga cause, in fact quite the reverse as everyone will begin to forget the Amiga exists at all.

It would be nice if you could include a page (or even just a few paragraphs) each month to explain some of the simpler and more common problems, something on the lines of CU Amiga's F.A.Q. for instance (NO - I'm not criticising AUI in any way, it's first class).

What I mean is repeat the same answers every month, those you seem to get very regularly. It would both help your readers, (as FAQ has helped me many times in the past) and give you more space to answer more complicated problems.

PS. I'm glad ESCOM have gone and I won't bore you with everything you've heard countless times before, but they, for some obscure reason known only to themselves, didn't appear to even be trying to sell Amigas. Maybe VISCORP will make some sort of effort before it's too late!

Thanks for a brilliant mag - keep it up
Yours,

Norman Etherington
Cambridgeshire

Dear Norman,

Thank you for the disk you sent us. It is most interesting and a very reasonable idea. It has gone to our dedicated - and sometimes less than sensible - SuperDisk team. (They have HD crashes and haven't backed up their material, and Andy Eskelson so weeps when they tell him and that his eyes blur and he has to be driven home in his Ferrari Answer Machine. (Did you see him in the Pits at Silverstone?) If they don't lose it in another crash - they are probably just envious of Andy E's exciting racing life - they will consider very seriously your suggestions. And thank you for them.

The distribution of magazines in this country is, as Winston Churchill called it when he was the foreign correspondent for the "Boring Times" - the propaganda sheet published by the British Government during the Bore War, is a mystery wrapped in a riddle enclosed in an enigma. Why they do the things they do in an effort to ensure that nobody can read the publications so lovingly written and edited and contributed to by such ardent readers and writers as yourself, is beyond the simple mind of a MENSA graduate such as your humble servant. (That's me, not your butler, Norman).

The theory, I assume, goes something like this. If we don't put Amiga magazines on the shelves of newsagents, Amiga users

will forget they have such computers and take up fly fishing in Borneo or crochet work. We can then sell them magazines with hooks in them - possibly the same hook for both "sports" publications. The hooks will catch them and they will pay to be let out and, if the magazines are not too stained with their blood, we might be able to sell the same magazines more than once.

Only such an oblique and peculiar strategy could account for what is happening to **AUI** and possibly other magazines. From the looks I get when I go into newsagents these days and ask, in a spirit of independent enquiry, for other Amiga publications, it would seem I am demanding access to magazines far worse than say "The Really Nasty Paedophile's Fab Video and Address Book" or "How to Molest Horses Annual" (including CD-ROM and Make Your Own Machete Pattern).

I can only say that you, Norman, are doing the right thing and defeating the forces of evil in placing a regular order and forcing the issue, as it were.

As for your interesting suggestions of FAQ-style ideas. I might welcome it, but it has been pointed out to me that is precisely what was behind the series that the inimitable Andy Answers did with his set of usefully named "Toolbox" hints. The series covered the OAQs - Often Answered Queries - or frequently asked questions, if you prefer it that way round.

If you and other readers would like it, we could possibly repeat the series, though I think it might be a pity for loyal readers who always take the magazine to have to lose some valuable space for new material.

As for your remarks about Escom, their behaviour toward the Amiga could be classified as totally incomprehensible if we didn't all of us recognise the many times that we have ourselves all acted in a stupid, irresponsible, and self destructive fashion for no apparently good reason. While having received more times than I care to remember the wild plaudits of the known universe for my services to history and humanity and many other species, I can remember with sadness and shame the thousands of occasions when I have not lived up to even common sense standards in too many aspects of my life. Not that I would admit this to anyone but you, Norman. And I know you will keep it to yourself and if anyone else gets to know of my human weaknesses, I shall know that Escom paid you as an agent provocateur and you are not a Religious Confessor after all.

Dear **AUI**,

I would like to add to Kevin Foster's letter in your letters page under Comms (page 67 August 1996) I too found it difficult to get in touch with Demon Internet support on the phone. I was so fed up with the quality of the AmigaNos software as well that I decided to finish

with Demon and connect up to InternetFCI and found the software to be great, mail dead easy and a good web browser and FTP software thrown in, also it is cheaper than Demon. What with a 100% U.K. local call rate what more can I say? Their number is 0500267767.

Kevin give this Internet server a try you will not be sorry. (I have nothing to do with any Internet server I'm just a normal punter).

All the best and cheers,

Ken Walsh
London E1

Dear Ken,

Are you sure your name really isn't Max Cliffover and, instead of acting for and possibly with girls who have affairs with Screws of the World and get preggers with eighteen babies, you are now promoting InternetFCI as a client? And do you really want to mess with a company called "Demon"? Aren't you just a little nervous that they will put the mockers on you and jinx your line, and possibly your loins, with "noise" and other nasty diseases of this modern world? (In my day it used to be called the "Modern" world, but I suppose it's cheaper to omit letters in this punkish era).

Still it's très agréable to hear of someone who is happy with an online service supplier and we will take your word for it that you are just a "normal punter". Though some people I have known, especially those who have only a very slight acquaintance with Amigas, have very strange ideas of what is "normal". For example, one woman I met recently told me it was "normal" to do strange things with camels and tried to lure me to accompany her in her private plane called "Vive la Difference" to North Africa to repeat such "normal" goings on. (At one point, she had almost accepted an offer of some 15 camels in exchange for her young daughter. She would have taken the offer if her son had not distracted her by rescuing from the sea a Portuguese Man o' War jellyfish and proudly bringing it ashore on his shoulder; so enamoured was she of these "humping animals", as she described them with a gleam in her good if, from the Saharan sun, somewhat faded eye that I can only say impressed me as camel-like in its rolling belligerence. When she murmured "Bonjour Tristesse" and seemed about to bite my knee and spit, I quickly returned home to safety, sanity and my Amiga.

Enjoy yourself online, but "Normal"? Please don't use that word again. This is a family magazine and has many OAP readers who would be shocked to know such things as so-called "browsing" that go on after the watershed.

Dear **AUI**,

I realise that HistoryLine 1914-18 is a number of years old now, but I thoroughly enjoy playing it. I Have

noticed that Combat Classics 3 Has sold quite a few copies lately (chart information from I.T.V. teletext). I have also noticed that although level codes have been printed in magazines for the French option of the game, there is no information available on level codes for the Central European Powers option. Therefore I have provided these for inclusion in the tips section of your magazine.

HistoryLine 1914-18

Level Codes - Central European Level France - Powers

PULSE 1 PULSE	CIVIL 2 GOOSE
MOUSE 3 SPORT	VENOM 4 BIMBO
NOISE 5 TEMPO	RIGHT 6 BARON
ORKAN 7 BUMMM	FRONT 8 LEVEL
RATIO 9 TOXIN	PARTS 10 PRINC
PLANE 11 CLEAN	FLAME 12 XENON
GOTHA 13 SIGNS	BALON 14 HOUSE
PAUSE 15 SIGMA	ELITE 16 SEVEN
INFRA 17 ZOMBI	HILLS 18 MOVES
COBRA 19 BLADE	ATLAS 20 ZORRO
AMPER 21 STONE	RHEIN 22 MOSEL
CANDL 23 ORDER	STERN 24 SODOM

P. Casson
Bristol

Dear P,

Thank you your interesting communication. I am sure that it will be of service to many of **AUI**'s readers who are well-known to be students of history.

As for the tips section of **AUI**, we don't take any coins any more. We find that trying to push through the crowded streets of London with a wheel barrow is just to exhausting. So any tips - generally 12.5% of the price of the magazine is acceptable (more for larger parties who read the publication aloud to each other, possibly in unison or some other trade union).

I must confess to being a little confused at your idea that France is in Central Europe. It may be true these days, particularly as Eurosceptics rule Britannia's waves. They did use to speak French in Rumania as a main language. And the Charge d'Affaires there had the best job though, when I was in Paris in that comfortable position for The **AUI** Embassy, responsibility did not stretch farther than having "le droit de seigneur" over passing ex-Pats and bringing together "les deux personnes" or "les deux pour les jeux" as they were called when the Amiga as a games machine breached the Iron Curtain. Nevertheless, I thank you on behalf of undoubtedly well-pleased **AUI** readers for your courtesy in sending such a stimulating list. I am especially intrigued by the last item though I wasn't aware that sort of thing went on in historical computer games except perhaps for those played with Tunisian Mutant camels which, as Martin Witton recently claimed from personal

CONTINUED ON PAGE 97

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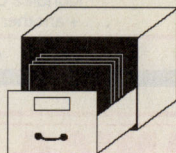
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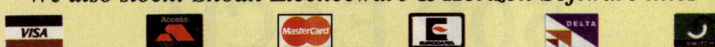
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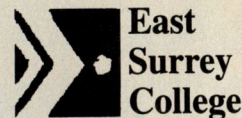
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Write to reply

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experience to have discovered, in one of his use-the-same-material-twice TechnoWorld articles, are cleverly designed robots using old Atari ST motherboards for CPUs.

But perhaps you were referring to the activities not of the camels, but of their drivers. In which case please confine your communications in future to the ST Format (RIP) North African Edition Magazine, the readers of which, probably including the said Witton person, would also doubtless be excited by the French option. And do you also "play" Gomorrah?

Dear AUI,

I felt I had to write with regards to the letter in "Write to Reply" - August, '96 from Graham Giles.

Graham writes - "[the Walker] is a very bold concept and sufficiently powerful and well specified to make Joe Public think again about getting a PC. It deserves to sell by the lorry-load."

I'm afraid I disagree with Graham completely about this concept-computer. First of all, Graham thinks the Walker is a "bold concept". No, I'm sorry, but I can't see anything about this machine that might justify such a label. It seems to me that the "Walker" is simply an A1200/030 with a CD-ROM drive in a rather strangely designed case! Which art-deco lover decided to implement such a design as this? Now I personally have no compunction against this "box" and would have been quite happy to have had one on my desk, but I'm afraid I just can't see such a design being popular to the mass-market. Sat on a shelf in Dixons perhaps, next to the desktop and tower boxes which have become familiar to the general public, I think the "Walker" would stand out and leave the browser thinking it is just another games console. A computer has to fit the perceived image of what a computer should look like if it is going to stand any chance of selling of at all.

Which brings me on to Graham's second notion - "... sufficiently powerful and well specified to make Joe Public think again about getting a PC." I think not! Just where is this computer well specified? The MC68030 CPU? The graphics capabilities? Its network facilities? I'm sorry Graham, but if you seriously believe that this machine has sufficient power to compete with the PC then you perhaps haven't tried a ray-tracing comparison between the two. I had an image rendered in Lightwave on both my '030-based A1200 and a 120MHz

Pentium recently, using identical settings. Guess what, the PC completed the image in a little over twelve minutes, while my Amiga took a thoroughly more depressing 17hrs/42mins.

Now, unless I'm mistaken, the Amiga's once dominance in this field has definitely been brought down by current PC power. Now I know it isn't fair to compare a A1200/030 @ 50MHz with a Pentium PC @ 120MHz, but you yourself have made the comparison with your sweeping statement.

"... to make Joe Public think again about getting a PC." - Again, I'm afraid I can't agree! Joe Public wants a PC. He goes to Computer World and selects his purchase from a range of PCs. He absolutely must buy the machine that is the standard, whether or not there are better machines on offer. He wants to be able to run the software he is familiar with from work or school. He wants to play the same games that his friends play. But, perhaps most of all, he has been influenced by a global marketing campaign that has convinced him that the only worthwhile computer contains an Intel Pentium processor and runs a Microsoft OS.

This is unfortunate but true. He learned his lesson from that time when he bought a Betamax video recorder - he will not buy a non-standard machine even if it is better.

To my mind, it doesn't matter how powerful the Amiga becomes, and there is an awful lot of scope for our beloved machine, it will not usurp the PC from the millions of desks they live on. The Amiga has had its day as a mass-market computer, its hey-day as the computer of choice has passed. But don't be disheartened, there is no reason why it can't have an incredible future - just don't expect it to overthrow the PC.

In the right hands the Amiga is now in an incredible position. It can be made great again AS A NICHE COMPUTER! Think about this - the key to the whole Amiga is its operating system and that OS is still one of the easiest to use, most flexible and customisable there is. It is perhaps the best OS currently available on any platform for intuitive use.

Now if I were in the enviable position of owning the Amiga rights, then my first task would be to bring the hardware completely up to date. It should be the fastest, most powerful and most technologically advanced personal computer around. Then I would revitalise the OS, while still retaining its near perfect core. Then I would target the areas where I think the machine should be aimed. Niche systems do work, I'm sure we all remember how the technologically-bland Atari ST became standard equipment in music studios around the world, simply because it had

a built-in £20 midi-interface?

There are three fields in which this new Amiga could be the reference machine:

- 1) Multimedia production
- 2) Desktop video/graphics
- 3) The Internet

I would promote my computer in these three fields as a machine designed to be the best server for each of these tasks and I would ignore the other fields completely. Let's face it - if the hardware is as good as I hope it will become, then games will be written almost as an aside, simply because the Amiga has such a strong PD-programming base. The other "serious" software, the word-processors, the databases and the spreadsheets already exist.

So this is how I see the Amiga's future. Never even trying to encroach on the PC presence, after all - why even attempt it? But instead, becoming a powerful workstation, employed in specialist fields, a la SGI. It can succeed, it can do better than that, but it needs to leap ahead technologically and be marketed in the right direction. Then it will become a "serious" computer, as opposed to the Amiga we all know, which slips back and forth from an ailing games-machine to a SOHO "solution".

Give the Amiga direction and drive hard. Then and only then, will it ever become successful once more!

Yours faithfully,

Jonathan Hollin

Dear Jonathan,

Why are so many Amiga users and AUI readers clever enough, knowledgeable enough, and articulate enough to make me think I should retire to a South Sea island and commune with the grass skirts and leave the writing of this magazine to them? Is it something about the Amiga that has drawn such people as yourself whose arguments would make a logical positivist philosopher weep - with admiration?

Mine not to reason why, I only help answer the letters that readers write and the letter from Graham Giles to which you refer was his opinion, not mine. I might even have agreed at the time, I do those things, Easy Going Bud, they call me, but as Bernard Shaw said, only the weak can't be strong enough to change their minds or something like that. He may even have said "On est jamais si bien servis que par soi-même", which means something akin to make up your own mind even if you don't stick to it or possibly even masturbation is always the best way of enjoying really good company.

Your arguments, as Descartes, one of the original French computer programmers, might have said, are carefully thought out, coded and therefore they are right. They are

written with an easy and convincing style and - as we all know - *Le style c'est l'homme*.

The PC is now, you rightly say, out of sight. That doesn't mean the seventies'ish expression used by now middle-aged hippies who still think hasbeen con-artists like David Bowie and never will be caterwaulers like Oasis are cool. It is a reference to the fact that the acceptance of the PC as the general standard for desktop and laptop computers is "IBM-compatible", as it quaintly used to be called, and nothing that the Amiga or any of its putative rescuers can do will change that or even go close to getting it to catch up the so far ahead it's out of sight leader.

Now "Niche" that's un cheval d'autre couleur, as the French version of the Wizard of Oz was wont to point out. Find your niche - another soupçon of the language de Gaulle - and enlarge it, that could be the idea to keep in the frontal lobes of anyone planning an assault on the Moscow front of computing on a Napoleonic scale. And keep it all a serious computer would also appear to be good advice, though one of the distinguished commentators on the Amiga scene who is quoted in this **AUI** disagrees and says the Amiga is a mass market machine or nothing.

Which of you will be proven correct? Showing my sangfroid in this difficult situation, I will wait and see. In the meantime, thanks for the very well expressed comments. Anyone disagree with Jonathan?

Jonathan, where are you?

Jonathan Hollin's letter was truly electrifying - or rather it came by electronic means, email. Great, we love them. Send us loads of emailings, they are always welcome. BUT do NOT omit your real, as opposed to Nettish, address. Otherwise we don't know where you come from and can give no fame to the home of such elegant correspondents which would be a snivelling shame.

So email plus home address, please, Jonathan and all of you very welcome readers and writers.

Subject: La Crème de la Crème and other French options.

Dear **AUI**,

I'm David from Lille, Northern France and I'm sorry for this letter probably full of mistakes. But I think my English will be clear enough to be understood. Well, I hope so...

What I'd like to speak about is Language and the fact you deserve the word "International" in your name. In

France, our ministre de la Francophonie who is the minister in charge of exporting the French tongue in the world, presently leads a campaign in order to do away with English words in our daily language in France.

Some French are afraid of being the victims of an Anglo-Saxon cultural invasion because we use more and more English words because of technology, business, and Internet. They think the French language is in danger but when I read your pages, I think they're wrong. I couldn't make a complete list but there is no one month without a French phrase in your articles. "Esprit de corps", "Faute de mieux" or "Crème de la crème" are some of them. When I read **AUI**, I say to myself that French are maybe paranoiac because I think we don't use more English words than you use French words. English is for technology and business, and French is for food and moral phrases. I don't see any problem.

What is exciting in the present world is that languages are mixing. Thanks to that, each one is getting richer.

Did you know that the French Academy suggest to write CD-ROM "Cé Dé ROM"? Isn't it stupid? It's just an example, but there are lots of similar cases.

Anyway, the most important is what we say and not how we say it. So with or without French words in **AUI**, I'll read it because it's the best Amiga magazine.

Thank you **AUI** for giving me fun every month.

David Merrheim,
Lille, France

Dear David,

Really I should thank readers like you for giving me such fun each month. Reading your letters and trying to find appropriate answers - and I leave to you just how appropriate some of my answers are - is a highpoint of my month. (Another is driving past a block of "apartements" in Highgate which a companion of mine invariably informs me used to be the highest occupied building in London. That's also a Highpoint, which is the name of block - of flats, not what I put up to shut her up.)

Whatever happens to English, and it may spread through the world as Esperanto was promised to do, but never managed, I don't believe French would ever be endangered, but I would be devastated to see it happen.

You say that French is the language of "food and moral phrases". What about some pleasantly immoral ones too? But it's more than that. It is, or was, the language of diplomacy and, from that, of courtesy. Anyone who has had the privilege of learning French, especially in France and most wondrously in Paris, carries something special within for the rest of their life.

Ernest Hemingway said that if you go to

Paris when you are young you carry Paris within your heart for ever, because Paris is "a movable feast". So too is French and I don't believe Hemingway could have made up that phrase in English if he had not spoken French, it has a graceful French ring to it.

AUI is, as you say, truly international. We have readers, I believe, in some forty countries. That's the result of the internationalism of the Amiga which has been a computer that did unite the world. Wherever I have been and met Amiga users, there has been an empathy, a point of unity that has been one of the greatest rewards of my time associated with this magazine and the Amiga.

And while you are right that English today has possibly as many French words as French has English, many times it has been said to me that **AUI** is unique. We seem to find readers who are intelligent and so find the use of words of more than two syllables and even French words - wow! (or sacré bleu! as you might say) - quite comprehensible and acceptable. But that doesn't necessarily go for all computer magazines or even all Amiga magazines.

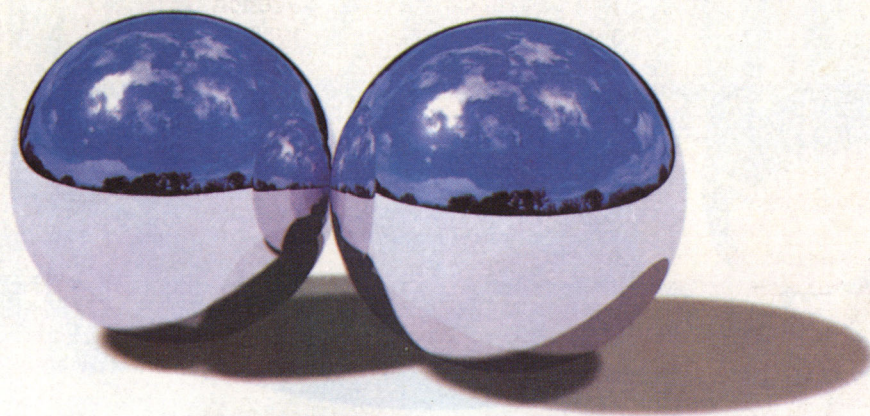
And, as you may have noticed, this issue or rather this Write to Reply, has done you proud. Here you have had a rendez-vous with beaucoup de Français. I am only sorry I can't offer you a café and cognac or a bottle or two of Bollinger or Mumm champagne to drink to the French option, as described in another letter in this Write to Reply.

The only thing that intrigues me is your description of the ministre who "exports the French tongue". I thought that euphemism was a pleasing activity that had made its own successful way around the world and had achieved virtually universal acceptance without the help of ministers. It's probably a compliment to your country that it has the sophistication to appoint a minister for that. Which makes it fitting that I should close with the (French) British Royal motto, "Honi soit qui mal y pense."

Au revoir, David et merci.

**Send your letters to:
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