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## This Month's Features

## Programming 26

Our incredibly powerful Amiga $E$ cover disk is just what you need to get into programming. Writing your own software is one of the most rewarding things you can do with your Amiga but where do you start? In plain English we explain the concepts behind programming, and guide you through all the available languages to help you decide which is best for you. We'll have you writing those killer applications in no time!


## Pedal to the Metal 32



There's a revolution going on in computer game soundtracks. With the advent of CD-ROM as the most popular computer medium, development teams are now recruiting professional recording artists to provide superior audio tracks. Now there's no limit to the sounds that a computer game can make even convincing heavy rock tracks are now possible. We venture into the studios of one of the Amiga's more exciting development teams to find out just how they do it.

## Death Becomes Her 35

Ruth Lingford is probably best known for her erotic animation "What She Wants", which was created on the Amiga using DPaint 4. Her latest animation Death and the Mother is to be televised next year with a budget of $£ 55,000$. She spoke to CU Amiga Magazine about this new project and what part the Amiga had to play in it.


## Public Domain

## - PD Scene

89
Fun, fun, fun from the less serious side of the public domain.

- PD Utilities 95
Shareware and PD productivity software and utilities come under the spotlight in PD Utilities.


## Get Serious

- FinalCalc68
Could this be the k spreadsheet the Amiga has- Blizzard 1230 IV70
The latest revision of Phase 5's 68030 accelerator
refines the award-winning design further still.- Demo Maniac74Amaze and amuse your friends with Black Legend'sdemo creation tool.
- Info Nexus 276
A pretender to the Directory Opus throne gets anupdate, along with a bonus database thrown in.
DICE C 379The shareware C compiler grows up, but can itcut it in the commercial arena?
Amiga M1438S Monitor ..... 83
The brand new official Amiga monitor has arrived.We give it a thorough testing.
CD-ROM Round-up ..... 85Take your pick from 11 CD -ROMs reviewed and ratedin this month's CD-ROM Round-up.



## Cover Disks

## 95

89

AWOCA
 00 OMNIGA

## Amiga E

10
You could hardly ask for a faster or nore flexible programming language than Amiga $\mathbf{E}$ and it's on this disk in its entirety. There's also a guide book! Follow in the footsteps of great Amiga programmers and code your very own applications, games, utilities and more in euper-fest $A$ mige $E$

## Worms

13
They may be squidgy and squashy but don't try any funny business with these wornis or they'Il blast you into next week. The much, much awaited demo of the game that everyone is talking about is here: Worms. Remember you saw it on CU Amiga's cover disk first. Have hours, ho years of fur with this exceltent snippet of the game, kindly donated to us by Ocean and Team 17.

## Games

## PREVIEWS

- Tracksuit Manager2 40

Alternative say they have made this football


## - Hillsea Lido

40
Vulcan Software attempt to emulate Theme Park's success with the familiar look of Valhalla sprites.

## - Penguins

Two cute little penguins dressed in dinner jackets follow their guide around numerous levels. This Lemmings-style platformer has to still to be snapped up by a publisher.

## - Atrophy

Intersect Development are a new Amiga. dedicated company. Atrophy, a shoot 'em up is their first foray into the wonderful world is their firs.
of games.

## REVIEWS

## - Worms

43
They're here, at last. Worms. On our cover and on our cover disk. Find out what all the fuss is about.

## Editorial

Welcome to CU Amiga Magazine. If you are a new reader who has just purchased an Amiga, or if you are a regular reader you should enjoy this issue. Not only do we have a review and cover disk of what is quite possibly the game of the year (no offence to Sensi fans), we've also cover mounted a full and fast Cstyle programming language and guide book. If you are an experienced programmer you should find Amiga $E$ very useful. If you dabble in programming or are new to the subject you will no doubt find it difficult to use and understand, but spend some time on it and the fruits of your efforts will show

Last month's CD-ROM issue proved exceedingly popular, but if you couldn't get hold of it try again. Because it went on sale a week late we have had its on-sale date extended by a week so if you wanted one and didn't get it you should ask your local WH Smiths or Menzies about it now They may still have some left!

On one final note, if you are a new reader with a new Amiga A1200 then I hope the Complete Guide that came with it (see news) was useful. If it started you off with the basics then our aim has been achieved. Alan Dykes, Editor

## Subscriptions

Did you miss out on last month's CD-ROM edition? Yes, well if you were a subscriber you would have received a CD-ROM with this issue of the magazine. Don't miss out. Make sure you subscribe now, otherwise you might miss the boat on any of future promotions. and you wouldn't want that now would you? You would? Well, you must be reading the wrong magazine then.

## Buyers Guide

100
3D ray tracing software is the subject of our buyers guide this month. Find out which is right for you on page 100.
OctaMED 5.04
The Nightcrawlers have based a whole pop career around cut-up vocal samples. Ed Wiles shows you how it's done.

Image FX
As our Image FX cover disk tutorial draws to a close, Tony Horgan exposes a variety of new visual tricks.
PageStream 2.2
There's so much you can do with PageStream 2.2. This month Larry Hickmott expands our personalised stationery collection.

## Graphics Masterclass

Textures, patterns and cosy embroidery effects are on the menu in Peter Lee's DPaint V tutorial.

## Wired World

In this month's comms section Mat Bettinson discovers a 'net voice phone and a graphics-free web browser.

## AudiolMaster IV

Powerful sound sampling effects and editing techniques are
explained in our AudioMaster IV cover disk tutorial.
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Questions and Answers124

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## Back chat

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## Points of View

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FRIEE 132 PAGE AMIGAE EUIVE
 the complete professional
programming language on this month's cover disks.
hat sets the Amiga apart from the consoles is the fact that you can create your own programs and games, so you are not limited to forking out huge wads of cash for someone else's software. You can be the designer, writer and producer of your very own masterpiece. You already have the programming language, now all you need are some good ideas and a bit of dedication!

## Ouick and easy

Amiga $E$ is a superb programming language by Wouter van
Oortmerssen, designed specifically for the Amiga. There are a number of other languages available for the Amiga, but $E$ is probably the best for one very good reason: the compiler works extremely quickly! This means you don't have to hang around for ages before you can actually run your programs.
Obviously, this has a dramatic effect on the development cycle of a typical program.
But it also makes programming a lot more fun, since you can see the effect of small changes to your program much more quickly. Your creativity is not sapped by having to wait for the compiler!

A lot of people already know the benefits of Amiga $E$, and some of the more notable ones are Paul Nolan (who wrote the amazing Photogenics in E ) and Chad Randall (author of the icon editor, /conian). From
just these two examples it should be clear that Amiga $E$ is a real, professional programming language that is more than capable of producing spectacular software. The only limit is your own abilities!

The Amiga Ev3.1i package on this month's cover disk contains a the full, registered compiler. Unlike the PD demo version, this is not limited in size of the executable programs it can produce, so you can now enjoy the full power of Amiga $E$.

## Installation

Amiga $E$ is very easy to use. Once you've unarchived the cover disk onto the three blank disks, all you really need is the main disk. 'Amiga_E_v3.1i', and the modules disk, 'EModules'. The third disk contains a lot of example programs which will help you learn the language. Hard-disk installation is very simple and is described below.

Boot your Amiga from the first disk and double-click on the disk icon to open a window with a

## Key Features

- Very user friendly
- Easy to get to understand
- Compiles quickly
- Runs fast


A Just what you always needed; donuts on your Workhench, all courtesy of Amiga E. Just try that with AMOS.


A Orating pour own GUl front end for a program is as easy as pie with Amiga $\mathbf{E}$.

Shell icon. Double-click on this icon to get a Shell. Make sure the modules disk is write-enabled, since we are going to create a program and write it on the disk. If you've not got a hard-disk, but you have two floppy drives then you could put the modules disk in the second drive, where you can leave it. Otherwise you'll need to follow the usual Amiga requests and swop disks a bit.

At the Shell prompt, type:
ed Emodules:Src
Now we can try compiling a simple program. Enter the following in the Shell:
ec HelloWorld.e
The E compiler, 'ec', will do its bit and produce the program HelloWorld on the disk. To run the program type the following:

HelloWorld
All it does is print "Hello World!" back at you, but this is just a simple example - we have to start somewhere! If you have
Workbench 2.0 or better then you can try the editor which was designed for use with E . It's called 'EE' and can be found in the ' $C$ ' directory on the main disk. This great editor by Barry Wills is another good example of what you can do with E . Read the documentation in 'Tools/EE/Docs' on the main disk for more details.

## Hard clisk

It is very easy to set up Amiga $E$ to run from hard disk. All you need is the compiler, 'ec', on your
path and an assignment of 'EModules:' to the location of the modules. For example, the following description shows how to install Amiga $E$ to a directory 'AmigaE' on the hard disk 'dh1:

Using Workbench, the Shell or your favourite file manager program, create the directory 'dh1:AmigaE'. For example, using the Shell type:

Makedir dh1:AmigaE
Copy the contents of the 'Amiga_E_v3.1i' and 'Amiga_E_v3.1i_extras' disks to this directory. The ' C ' directory is usually called 'Bin' on a hard disk installation so you might want to rename it.

Copy Amiga_E_v3.1i:\#? dh1:AmigaE all Rename dh1:AmigaE/C
dh1:AmigaE/bin Copy
Amiga_E_v3.1i_extras:\#?
dh1:AmigaE all
Now create a sub-directory called 'Modules' in 'dh1:AmigaE' and copy the contents of the
'EModules' disk there. You might then want to move the 'Src' directory up to 'dh1:AmigaE'

## Makedir

dh1:AmigaE/Modules Copy EModules:\#?
dh1:AmigaE/Modules all

## Rename

dh1:AmigaE/Modules/Src
dh1:AmigaE
Add the following few lines to your 's:user-startup' or 's:start-up-sequence'
Assign EModules:
dh1:AmigaE/Modules Path dh1:AmigaE/Bin add

Now reboot your Amiga for the assignment to take effect and try compiling the simple example:
cd dh1:AmigaE/Src ec HelloWorld.e HelloWorld

## Learning E

On the cover of this issue is a beginners guide which should help you learn the fundamental aspects of Amiga E. The more advanced features are explained in the E Reference Manual, which is the AmigaGuide file 'E.guide' in the 'Docs' directory on the main disk. This was written by the author of Amiga E, Wouter van Oortmerssen, so should be considered authoritative.

The programs in the 'Src' directory on the modules disk and in 'Src2' on the extras disk are good tutorial examples. Some of them show how to use the various utility modules that come in the Amiga E package. The 'RKRMSrc' directory on the extras disk contains translations of the examples in the Rom Kernel Reference Manual (which is the official guide to programming the Amiga, and is available in four volumes:
Libraries, Devices, Includes and Autodocs, and Hardware).

## Here's some I

The two screenshots on these pages show two of the example programs. The first of these was written by Michael Zucchi and is a made up of spinning donuts as a Workbench backdrop (using hardly any CPU!). This is 'torus.e' in the directory 'Src2/FilledVector/ examples' on the extras disk.

The other example (written by Wouter) shows how easy it is to create a font-sensitive, resizable Graphical User Interface (GUI) in E, if you use the 'EasyGUI' module. The example is 'all.e' in the 'Src2/EasyGui' directory. Another 'EasyGUI' example is a fully-working file requester which also shows how to use Amiga system functions to interrogate disks and volumes. This is 'myreq.e' in the 'Src2/EasyGUI/freq' directory.
'ShowHunk.e' in the 'Src2/Utils' directory is one of those essential utilities. It displays the hunk structure of Amiga binary files like executables and libraries, and also incorporates a full disassembler.

If you want to learn things like how to use the Exec messaging system, how to program using

BOOPSI (the object-oriented system for GUI creation), or how to create a Commodity, then the place to look is the 'RKRMSrc' directory. The examples are, respectively, 'port1.e' and
'port2.e' in
'RKRMSrc/Exec_Library/Ports', 'talk2boopsi.e' in
'RKRMSrc/Intuition/Boopsi', and 'HotKey.e' in
'RKRMSrc/Commodities'

## More E sources

If you've got access to Aminet (either by the Internet, the Aminet CDs or a decent PD House) then you want to look in the 'dev/e' directory for E-specific stuff. Recently, part two of the RKRM translations has been uploaded as 'JRH-RKRM-2.Izh'. There's also a small GUI called 'EConomic' to help compile E programs from an ARexx-friendly editor (the archive is 'ECo092b.lha'). Two huge compilations of modules and programs are 'capus.Iha' and 'capus2.Iha', and if you speak German there's the EPD series of disks ('epd12.Iha' through to 'epd21.Iha').

For the Internet-connected there's a mailing list run by Norman Kraft. To join, send a message with 'HELP' in the body to 'amigae-request@ bkhouse.cts.com'. You'll get a message back telling you how to subscribe.

## Upgrades

The Amiga E compiler on this month's cover disk is different from the full, registered version in only one respect: this version cannot be upgraded for free. Upgrade patches are available on Aminet as they are created, but you must register v3.1i before you can use them. Once you have registered, all updates will be free. You can register by sending your money to Jason Hulanc (Dept E), Formal Systems (UK) Ltd, 3 Alfred Street, Oxford OX1 4EH. Price: $£ 26$ via disc or $£ 23$ via E-Mail.

## Go and play <br> Amiga $E$ gives you the power to

 make your Amiga do exactly what you want it to.Programming your Amiga is something which can be very rewarding, and if you're particularly good you could even earn some money. But don't let this put you off!

Watch for the tutorials on this excellent package which will be starting from next month.

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- Up: Move your worm's aiming device up

Down: Move your worm's aiming device down

- Return: Your worm jumps in the direction he is facing
- Space bar: hold down the space bar to increase the power bar, release it to stop the power bar and fire the weapon. If you're using a blow torch or drill, hit the power bar to start up and hit it again to stop.

If you are using a homing missile, an air strike or the teleporter: first select the weapon, then a red cursor will appear on screen. Place the cursor over wherever you want to teleport or bomb and then right click. This will activate both the teleport and the air strike. To launch a homing missile you have to use the space key to activate the power bar as normal.
Peady, Aim, Fire ...
Items like the grenade are trajectory weapons. You have to aim into the air at an angle and use the power bar to judge the distance the bomb will be lobbed.


We've been waiting for this one rather a long time. Now it's here so you can test this excellent game out for yourself.

he best game available this Christmas? Turn to page 43 to find out. Then load up this demo and have a go for yourself. It consists of three landscape scenarios: Snow, Forest and a special CU Amiga Magazine level just for you. Each game lasts just five minutes, and although this doesn't sound very much, it will allow you to complete each level.
Total wormage
You will need to uncompress your cover disk onto two separate blank floppy disks. Do this by rebooting your machine, inserting disk 121 and following the on-screen prompts, swopping disks as instructed. For more information on loading your disk turn to page 14 .

Once you have your two Worms demo disks, insert Disk one into into the internal drive of your Amiga and reboot it. After a couple of seconds an Ocean logo will appear followed by a Team 17 logo, then it takes about a minute or two to load the demo, depending on which Amiga you have. It's slower on an A500 than it is on an A1200. If the screen goes blank for a while before the loading screen appears don't worry everything should still be all right.

If you have an A1200 you will be

asked for Disk two half way through the loading sequence. Disk two holds most of the sound samples for the demo, so you're in for a treat. Unfortunately if you have an A500 or A600 then Disk two is pretty much redundant - your machine will not be able to handle all of the samples. Don't worry though, everything else remains the same and there are enough samples to keep you happy.

Upon loading click straight onto the 'play game' option. You will then see a player select screen. The first four teams, 1up-4up, are human options, the last four (with the chip sprite beside them) are computer players. Once you have selected who you want to play with and against, click on the 'next' button then on 'friendly'. This will start the level.
Oh no ...
The computer teams are rated from useless to good, with Oh No! the worst and HRH the best. It's not a good idea to select more than two teams at a time in this demo, if you want to finish a game that is. Because it cuts out after five minutes the more players making moves, the more time is wasted and you'll end up with no result. Thus, two human or one human and one computer player is the ideal mix. You have only 30 seconds to complete your turn once one of your worms has been selected. You will see a little arrow above the currently activated worm. The object of the game is to kill off the other team, so good luck.


## Amiga E

Your Amiga E cover disk contains compressed archives for three separate Amiga E system disks. Before you can use Amiga E, these archives must be expanded onto three new disks. These disks do not need to be formatted. Follow these steps to expand your disks.

1. Insert the Amiga $E$ cover disk into the internal floppy drive and reset your Amiga. Alternatively insert the cover disk after booting your system, double click on the disk icon and then double click the CUMenu icon.
2. If you want to check for write errors during disk expansion, click the gadget marked 'Don't Verify Expand' so that it reads 'Verify Expand'. This is not essential and will slow down the expansion process slightly.
3. You can expand your disks to an external floppy disk drive if you have one connected. To change the expand device, click on the 'Expand to DFO:' gadget.
4. To expand the first of the three disks, click on the disk image marked 'Amiga E v3.1i' or press F1.
5. You will be prompted to insert a blank disk once the archive has been loaded. Do so and press Return to continue.
6. You will be asked to insert disk CU_121. Do not insert the Worms disk, but instead insert the Amiga E cover disk, which has mistakenly been named CU_ 121 rather than CU_122.
7. Repeat steps 4,5 and 6 , clicking on the remaining two disk images in turn and inserting another two blank disks accordingly. 8. You will now have your three Amiga E system disks. Label them according to their names on the expansion menu screen. 9. Boot from your normal Workbench system. Refer to page 10 for general operating instructions and hard drive installation.

## Worms

Worms needs to be decompressed onto two separate disks before you can play the game. These do not need to be formatted, but any information contained on them will be overwritten. Write protect your cover disk, insert it into the internal drive and reset the Amiga. Now follow the on-screen prompts, swopping disks as required. When it's all finished, boot your Amiga using the first of the expanded Worms disks.


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9


## Silica In Recievership ong time Amiga seller



©and wholesaler and owners of the Amitek brand of peripherals, Silica, have gone into administrative recievership. The company, which has been with the Amiga right from the beginning announced the news in mid October, but hopes that the process is temporary. Although the receiver was unavailable for comment, Amiga Technologies remained confident that it was a minor setback for the distributor and that they would be back on the rails after Christmas.

Just four months ago the Amiga's other old distributor ZCL went into liquidation, blaming their misfortune on Commodore, but Silica have done no such thing. An industry insider claimed that "they are just seeking protection from their creditors until cash flow improves. The Summer months have been bad." According to Amiga Technologies the A1200 will continue to be distributed by Silica and anyone with machines on order through them should not worry; the receiver intends to honour all orders. The other Amiga distributor, CentreSoft, remain unaffected and should be able to pick up any shortfall the Silica situation brings about.

## Christmas 4000 Accelerator

(1)he $\mathrm{A} 4000 / 4050 \mathrm{MHz}$ doubler/accelerator, known as the Doubler 4000, has just had a significant price reduction for Christmas, Blittersoft have told us. Previously priced at $£ 399.95$, it has been reduced to $£ 299.95$. Originally rated at $73 \%$ in the October issue of CU Amiga Magazine, summed up with the comment "Reasonable speed boost at perhaps too high a price", this price reduction goes some way to rectifying one of the major criticisms of the accelerator, and should add a few percentage points to this score accordingly. With a Sysinfo MIPS rating of 37.77 and good benchmark results, it looks a very attractive option, so long as the 'overclocking' doesn't lead to heat problems. Also reduced for Christmas is the Image Vision multimedia authoring package. Originally $£ 149.95$, Blittersoft are reducing this powerful package to $£ 99.95$ up until the new year. Look for a review in a forthcoming issue of CU Amiga Magazine.

## Breathless <br>  said that texture mapped Doom clones 'couldn't be done' on an Amiga. Ever since that time the PD demo world has been inundated with examples of fluidly texture mapped graphic engines to bring new depths of realism Technically the Amiga's custom chipset isn't suited to this type of graphics but with the advent of the immensely popular Gloom and $A B 3 D$, these techniques have improved to a level that was previously thought impossible. Rumours have circulated about a new game under development by an Italian group known as Fields of Vision. Some of the highlights are the amazingly good texture mapped artwork coupled with an engine that has variable screen sizes, resolution and detail like no other. Most impressive is the the light sourcing and complex texture mapped enemies, which even move around smooth ly on only moderately accelerated Amigas. If the game has any of th actual gameplay of Gloom and AB3D it will be an essential purchase <br> TWI and WIE Merger <br> Time Warner Interactive Entertainment, who are due to release

 Primal Rage on Amiga around Christmas time and Warner Interactiv Entertainment, who now own Renegade and have the rights to ViroCop. Sensible World Of Soccer and this month's Flight Of The Amazon Queen have merged. Both were originally formed out of two separate parts of the gigantic Warner Bros film, music and boo publishing empire.Although their long term plans for the Amiga are uncertain, the merged company is still believed to be publishing Chaos Engine 2 i the Spring. To contact the Warners phone 01713914300.

## Amiga Production hits 15,000



By the time you read this the production of the Amiga Magic 1200 will have topped 15,000 , over half of which will have gone on sale here in the UK. We visited the factory in France where it is being made during October and witnessed two production lines running the Amiga alongside PCs and other computer related kit. Don't worry though, you're not likely to get a Pentium chip instead of your Motorola. Solectron, the manufacturers are a multi billion pound company producing components for a wide range of PC, car and other sectors, including Amiga. To add to this good news, your favourite magazine has a special issue going into each UK Amiga Magic pack. Called the Complete Kickstart Guide To Your Amiga it's been written by journalists from CU Amiga Magazine and is the most comprehensive, yet easy to use starting point for all new A1200 users.

## Caption Compo

We photographed these towers outside the Solectron Amiga factory in France. There are two subscriptions on offer as prizes for the people who can 1. tell us what they are actually are and 2. provide a 1020 word caption for the picture. Only one sub is available per person, but by all means answer both questions.

Send all entries marked 'Twin Towers Competition' to the usual address by December 20 th.


## Another Squirrel Surfs in

Perhaps the Amiga's most serious limitation is its serial port. Unchanged since the original A1000, it's barely capable of keeping up with modern day modems and easily loses data if the CPU is overly taxed. To address this problem, HiSoft have announced the 'Surf Squirrel' which is an updated Squirrel SCSI interface featuring a faster and more efficient SCSI controller chip and a new high speed serial port, priced at $£ 99$. Capable of up to $300,000 \mathrm{bps}$, it would be suitable for networks as well as modem communications with the Internet. Review to follow. For more information call HiSoft on 01525-718181.

## Investingin AMIGA

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(We have a lot more planned for the coming months... stay tuned!)

## His M B

 Announce PEG Squirrelack when Commodore were churning out the CD32 in droves, buyers were drooling for the the MPEG cart which would allow you to watch Video CDs. However, Commodore went bust and Escom don't appear to have much interest in the CD32 so MPEG hasn't been widely available on the Amiga. Now though HiSoft have announced a 'Squirrel MPEG'. Not to be confused with the Squirrel SCSI, this unit is a set-top box with a SCSI connector/interface. Attached to some form of monitor or TV and any machine with its own SCSI interface, full motion video can be decompressed from hard drive or memory. In faćt a computer isn't needed at all since the unit can be linked directly to a Video CD capable CD-ROM and play MPEG video direct to your TV with the provided remote control.

Of real interest to Amiga users, however, will be the ability to com press rendered animations into MPEG files and then display the results at full speed via the Squirrel MPEG. HiSoft plan to release the Squirrel MPEG before January next year priced between $£ 200$ and £300. Call HiSoft on 01525-718181 for more information.

## Disk Drive Network

(1)he Canadian based AmiTrix Development have announced a new Amiga networking system call AmigaLink. Bundled with the Envoy 2.0 networking software, AmigaLink doesn't require a Zorro based Amiga as it uses the external floppy disk drive port. This method means that AmigaLink can han dle a transfer rate of 450,000 bits per second via Direct Memory Access (DMA) which means CPU usage is far lower than parallel solutions. Capable of networking up to 20 machines it is supplied with AmigaLink 2.0 networking software which is capable of running on OS 1.3 machines. Expect a full review soon.

Also from the AmiTrix stable is a hard drive interface for the A570 and the CDTV known as 'SCSI-TV'. Being a full specification SCSI interface supporting the Rigid Disk Block standard, SCSI direct and autobooting. SCSI-TV should be of keen interest to owners of those machines. Call AmiTrix Development on +1 -403-929-8459 or E-Mail them on sales@AmiTrix.com for further information.

## World Construction Set

5litterSoft announced UK distribution of the World
Construction Set. A package similar to Vista in that it creates very realistic rendered landscapes as seen below. Reviewed in next month's CU Amiga Magazine, the package retails for $£ 119.95$. Call BlitterSoft on 01908-261466 for more details.


Charts
There are a couple of surprise re-entries in the charts this month. Whether this has to do with new Amiga owners buying old (but startlingly good) games or not it's difficult to tell but the re-entry on Indy, Monkey Island and Syndicate is good news.

## 1. Player Manager 2 <br> Virgin

2. Sensi World Of Soccer
3. Monkey Island 2
4. Beau Jolly Compilation

Virgin US Gold
Beau Jolly
5. Indiana Jones and Fate Of Atlantis
6. Formula 1
7. Ultimate Soccer Manager
8. PM3 Multi Edit
9. Sensible Golf

US Gold Domark

## 10. Syndicate

Impressions Gremlin Virgin EA

## The Stateside Column: By Jason Compton <br> At last, we have a winner. Service Management Group, the compa-

 ny that provided warranty service to American Amiga owners during some of the Commodore years, has been chosen by Amiga Technologies as the first direct distributor for new machines in North America. In addition, Software Hut, a large North American mail order house, claims they also have been chosen. As Gilles Bourdin, Marketing Director for Amiga Tech informed an impromptu press conference on IRC, SMG's contract was for non-exclusive distribution through the end of 1995.As this issue goes to print, both SMG and the North American Amiga Technologies office are waiting for the final word on this situ ation, as both seem to feel that the plans will be more long-term. The only comment on Software Hut's status came from a company representative who categorised the agreement as "verbal." On the heels of this news, orders are already being taken for new Amiga 4000 Towers, the only machines that will be available on this continent before Christmas. SMG has been told by Amiga Tech that Amiga 1200s, built for NTSC standards, will be available in January. All new machines will come with the impressive software pack assembled by Amiga Tech UK's Jonathan Anderson.

Despite not having any new machines for nearly two years (even before Commodore's bankruptcy, obtaining machines in North America, particularly the US, was incredibly difficult for six months before April, 1994), Amiga users went ahead and celebrated their machines with two user-organised shows, bringing users, dealers, and celebrities together in Western and Eastern Canada in July and August, respectively. Encouraged by the success of these smaller shows, Wonder Computers Inc., which consists of a dealer chain, distribution unit and software team, is organising the World of Amiga Toronto show. The event will be held, as is tradition, at the Toronto International Centre, from December 8-10. Amiga users always seem to find something to celebrate. The fears that North America would be ignored by the head management seem to have been allayed somewhat. The Amiga market is never a boring place. There's always someone who's up to something to make life a little easier, a little more interesting, a little more worth cheering about. Here's to their continued success.

## Matt Broughton's

#  <br> <br> Games <br> <br> Games <br> In <br> VEW 

# The new Amigas are finally available but are there any games developers still making products for our beloved machine? You betcha! 

(A)s if I need to tell you, one of the most important things to report at the moment is the fact that Amiga 1200 s are finally back in the UK after some eighteen months' absence. The only major chain of stores to have supported the Amiga so far is Tandy, with 130 of their 341 stores stocking the machine, but we'll just have to wait and see how things go.

Just to prove that it's the quiet ones you have to watch out for, Alternative Software have a fine selection of products on their way, headed up by the sequel to the popular Tracksuit Manager imaginatively titled Tracksuit
Manager 2! (How do they think up these incredible titles?) A release date has yet to be finalised, but hopes are that it'll be out on the shelves before Christmas. There is one version in production at the moment, with the programme being sensitive to CPU capabilities and adjusting itself accordingly but producing machinespecific versions is still a future possibility. TM2 will retail at $£ 25.99$.

Rage/Traitor is the working title for a new double pack due out in November, rather unsurprisingly containing two games (weren't expecting that were you?) called, wait for it, Rage, and, Traitor. YES! bet you're wondering how I manage to make these pages so interesting aren't you.


Anyway, Rage sees you as what Alternative Software's Roger Hulley describes as 'a robot chap' flying in an overhead-action kind of way across various weird ancient alien lands. It's a basic shoot 'em up, but according to the man in charge, very atmospheric. Traitor takes the action to a side-on perspective, with an R-Type-ish joy-stick-melter of a blast. Both of these games are original titles, one of which has been written by Apache, the people who brought you Death Mask. The double pack, whatever it ends up being called, should be out in November at $£ 14.99$.

Rugby League Boss is another Alternative title to look out for in the future, with a pre-Xmas launch planned. Retailing at $£ 14.99$, RLB is a mixture of previous management game styles, with the added element of being able to step in and get involved in more arcade sections such as taking conversions after tries have been scored. Alternative's Roger Hulley is also keen to point out that the decisions you make REALLY DO affect the outcome. Unlike some other games that I can't mention (well, Roger did, I'm just not allowed to print them!) Hilarious japes aplenty, as Thomas Tank Engine Pinball is at last released, featuring four tables, each one themed for a different character. James, Percy. Tilby, and, of course, Thomas, all have their own tables, each one $\triangle$ Pro Rugby League: looking good on PC coming to an Amiga near you in ' 96 .


$\Delta$ Tracksuit Manager 2 : manage your favourite team to the dizy height s of foothall greatness.
sub-games. Created by the people behind Pinball Dream. Spider Soft, this will be available at $£ 16.99$ and promises 'immense fun for kids and their parents.' Apparently.

SPUD, a game previously known as Santa Wars has, sadly. been shelved as far as the Amiga goes, ending up as a PC-CD ROM title. However, Penguins, a sort of arcade/puzzle affair, is still due for a November release. Retailing at $£ 14.99$, the game promises "a mixture of the best puzzle/arcade games we've seen," according to Mr Hulley.

Future projects also worth mentioning include Pro Rugby League, a full sports simulator featuring huge polygon players, along with all the features you could possibly want! PRL will launch in May 1996, just in time for the Super League. It's actually being developed as a PC title to begin with, and once the team start stripping it down for the Amiga, they'll decide whether it'll be A1200 only or whether they can produce other versions. Er... oh yes, there's also a children's' painting programme called Playdays Paint, but I doubt you want to know about that.

And finally, for CD32 owners there are a number of projects currently under development from Alternative too, with the most imminent still having no name, but looking to feature a speed boat that attacks aliens. There's also full video footage to
look forward to, along with all the usual CD32 trimmings. Oh yeah, and Thomas The Tank Engine Pinball will be available on CD format in November for $£ 19.99$. Hurrah! I hear you shout.

Team 17 have had an excellent response to a shareware version of Worms that's been made available on the Internet. Apparently, they're currently enjoying some 20,000 visitors a week. I'm not surprised - it's a brilliant game, and I can't wait!!

Following my flogging Blitz Bombers to death in The One, those clever guys at Leading Edge had a lot of interest, and although quite a few places turned it down due to lack of originality (short-sighted fools that they are!) the guys have decided to join forces with Guildhall Leisure (the company responsible for the Acid releases). We should see the A1200 version of the game out in the shops in November, and although there's still a little work to do on the CD32 version (mostly music) that should follow on short ly thereafter. At the moment the guys are looking at a PC port, but data disks for the Amiga are a defi nite possibility (with new levels. etc.) and there's even talk of a sequel to get in all those ideas they didn't have time for. Other projects include a 3D fighting game for the A1200, complete with light-sourced graphics. Oo-er

And that, my CU chums, is the lot for this month. Matt Broughton

## AMÍGA A 1200

The UK's favourite home computer is back! Amiga Technologies a brand new UK company have launched the Amiga 1200 with a stunning array of software in the AMIGA MAGIC pack. And, to make a great pack even better, every Amiga 1200 Magic Pack from Silica (at the advertised price), comes with a FREE Chaos software pack - see below.

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©ith so many hundreds of Amiga programs to choose from and a vast repertoire of public domain software, you might be wondering if there is any need for you to slip into an anorak and learn to program at all. Why bother, when other people will do it for you?

Tch, tch you lazy so-and-so. There are plenty of good reasons for getting into programming. First of all that amazing program you have been waiting for all these years might not actually exist. Unfortunately your obscure requirements might not apply to anyone else and so you are the only person who would bene fit from the program being written.
You might also be interested in career in programming: what better way is there then to proceed than to teach yourself at home?
Money always comes into the picture somewhere and releasing a good shareware program or coming up with the next big cover disk hit could make the cash registers ring with delight. As the move continues towards more and more independent companies making names for themselves in the Amiga market, you might find yourself responsible for the number one selling game at Christmas.
Or you might simply enjoy the intellectual challenge of problem solving and the artistic delights and deep satisfaction of actually creating something.

## Don't Be Afraid

Many people are put off trying to program because they glimpse part seven of a programming tutorial in C and decide that there is simply no way they could even learn to program. Out come the
excuses: I'm no good at maths ... I learnt BBC Basic at school and didn't understand a word of it the list goes on.
The good news, however, is that programming has never been easier. Of course if you have a brain the size of a planet (like someone Mat met recently). you can jump right into the deep end with Assembler code and write yourself the best demo since sliced bread. The rest of us will want a gentle introduction.though, and preferably one which isn't going to cost a lot of money.
Well, you are in luck as there is a language to fit every need and every level of experience. You can start off gently with a little ARexx (which is free) or try the more academic approach with Pascal. If you want to get some serious work done you can see what C can do for you, and if you really only want to write games then you could try AMOS or the far superior BlitzBasic system.

You don't need to be a mathematical genius to learn how to program. All you need is patience, an eye for detail and the ability to visualise problems by breaking them down into smaller parts. After that you only need some spare time, some scraps of paper and a copy of your favourite magazine, of course.

## How Programming Languages Work

To understand how a programming language actually works, you need to realise exactly how stupid computers are. To be blunt, they know nothing you don't tell them and they usually forget what you tell them very quickly. There is nothing 'artificially

$\triangle$ The stumningly powerful Photogenics was ariginally written with Amiga E , as cover mounted with this issue of CU Amiga Magazine.
intelligent' about computers: they simply follow the list of instructions they are given.

The list of instructions is what we call the computer program and no matter what particular language it is written in there are only a set number of things which can happen.

Computers only deal with 'input' and 'output'. The purpose of a program is to generate output which depends on the input. If the input is a series of movements of a joystick, the output could be a game of Pacman. If the input is a list of numbers, the output could be a sum total or a bar chart

Let's look at a very simple program and see how it works. This program has been written in ARexx, the language which comes built-in to all Amigas with Workbench 2 or above. I choose ARexx because it is relatively

## Making It Up

A Language like $\boldsymbol{C}$ is compiled before use: this step can involve lots of other smaller stages, and takes quite a lot of time. Extra large programs can take an hour or so if all compiled at once. Assembly language must also be converted into machine code before programs can be run (and they usually need to be linked as well) but this is a lot faster as each Assembly language instruction is equivalent to one machine code instruction. An interpreted language is converted as it is actually running: slower but easier to do.

easy to read and because you can enter and run this program yourself if you wish: all you need to do is type it into a text editor (such as 'ed') and save it somewhere. Then use the special ARexx command 'rx' to run it.
/* Example program 1 :
Sequential execution */
$a=10 \mathrm{~b}=6 \mathrm{c}=\mathrm{a}+\mathrm{b}$
say "Number 1 plus Number 2 is:" c
This program may be short, but it demonstrates several important principles of computer programming. The first might be obvious, but it needs to be said: the program starts at the top and works down, line after line until it either stops or it is told to go somewhere.

Secondly, it introduces the concept of variables - in this case the variables are the letters ' $a$ ', ' $b$ ' and ' $c$ '. The letters in the program are actually locations in the Amiga's memory which the ARexx system has set aside. It stores the values 10 and 6 into the locations referred to by the labels ' $a$ ' and ' $b$ ' Notice how the third variable, ' $c$ ' is given a value which is the sum of ' $a$ ' and ' $b$ '. This value is then display on the screen with a simple message,

```
/* Example program 2 : Loops */
do count=1 to 10
```

say count end

This program demonstrates the ability of a program to repeat parts of itself. The purpose of the program is to display the numbers from 1 to 10 , and one way to do this would be to use ten different say commands.

However, a short-hand way is to create a 'loop' and that is exactly what is happening between the 'do' and the 'end' statements. In the example below, the program in the middle is being executed ten times, because the variable loop is being forced to count from 1 to 10 .
/* Example program 3 :
Conditional arguments */
do count=1 to 10
if count $=1$ then say "Number 1 "
if count $=10$ then say "Number
$10^{\prime \prime}$ if count > $1 \&$ count < 10
then say "In the middle"
end
Programs which either run right through or just perform simple loops are rarely useful. We need some decision making, and that is what is happening in this listing. The variable count is stepping through the numbers from 1 to 10 as before, but this time the content of the loop is quite different.

Each time the loop happens, the value of 'count' is checked several times. First of all it is checked to see if it is equal to one. If it is, a message is printed.

Then 'count' is checked to see if it is equal to 10 . If it is, a different message is printed. Finally, 'count' is tested to see if it is greater than 1 and also less than 10 (that is, if it is 2 , $3,4,5,6,7,8$ or 9 ). If this is the case, a third message is displayed.

Line-by-line execution, loops and decisions are the only things which computer programming languages need to know how to do. By combining these elements, almost anything is possible: from the simplest utility to the most complicated 3D image rendering system.

## Why The Commotion?

You might be wondering what makes one programming language different from another. If they only perform simple instructions, then why all the fuss?

Every programming language is a trade off between ease of use and speed. It is always the case that what is easy for humans to read is difficult for computers and vice versa. For example, although ARexx is still obviously a programming language, it's a lot easier to understand than something like:
add. 1 \#1, pos1
move. 1 pos1,d0
cmpi. 1 \#4, do
bne SayRoutine
move. 1 \#0,pos1
rts
The above is written in Assembler which is definitely not designed for humans. Instead it is designed so that each statement can be directly converted into the instructions used by the Amiga's processor. So for each 'add.l' there is a single corresponding instruction in the machine code which the Amiga uses.

Compare this to ARexx: each line in an ARexx program could eventually end up being translated into hundreds or thousands of these machine code instructions, and each line of ARexx needs to be converted to machine code before it can be processed. An Assembler program would therefore run much faster as it's not slowed down by the translation process.

## Two Different Camps <br> All the different languages can be split into

 two sections: compilers and interpreters. The difference between compiled and interpreted
$\Delta$ Skidmarks is regarded as the hest example of a game written with Blitz Basic, thanks to its tremendous speed, graphics and gameplay.


[^1]
## Which Language Is Best Suited To You? Take Your Pick...

Before you even start to Form: high level compiled program you must choose which language to use. Your decision will depend on the type of program you need to create, your experience and of course, how much you can afford.

We've rated each language in four categories. They are as follows: ease of use, speed, suitability for various applications, the form of the language and finally some examples of the language.

AMIGA E Amiga $E$ is a custom programming language which only exists on the Amiga. This means it's been specifically created to make programming easier and faster than other languages which have to remain compatible with other platforms.

Amiga $E$ is a compiled language but the ease and speed of compilation makes it almost as quick to make changes as with interpreted languages.

You can find the full version of Amiga $E$ along with a manual on the cover of this month's CU Amiga Magazine.
Ease of use: moderate
Speed: fast
Suitable for: games, utilities and applications

Examples: Amiga $E$
ASSEMBLER You can't get a lower level language than Assembler unless you want to enter hexadecimal numbers into a file by hand. It will take some getting used to but it is the most pure and satisfying form of coding and is the only way to create fast action games at a professional level.
Ease of use: hard
Speed: very fast
Suitable for: games, speed and critical programs
Form: low level, assembled.
Examples: HiSoft Devpac 3
c C is a lot more like English than Assembler, but it's still nothing like English really. C is the choice of many processional programmers, for although with a good compiler it provides the kind of speed offered by Assembler, it also manages to cram in excellent support for 'data structures (organising information for easy processing) and the ability to create code libraries.
Ease of use: moderate
Speed: fast
Suitable for: games, utilities
and applications
Form: medium level, compiled Examples: SAS/C, Dice

BASIC BASIC started off as a teaching language in the 1960s but is still in use today. Originally it had many drawbacks and as it was interpreted it was dog slow. Over the years it has evolved into various streamlined and compiled forms and is often used as the basis for games programming languages such as AMOS or Blitz. Purer forms such as HiSoft's BASIC are better for utilities and Workbench-friendly programs.
Ease of use: easy
Speed: average (depends on the version)
Suitable for: simple games and utilities
Form: high level, compiled (some versions interpreted)
Examples: HiSoft Basic,
Blitz, AMOS
ARexx It's free, so it can't be all bad. In fact, ARexx is very powerful. It looks a little like BASIC but is a lot less fussy. It's easy to program and best of all you can use it to control the features of any application program which has an ARexx port.
Ease of use: easy

Speed: fairly slow
Suitable for: simple utilities, linking programs
Form: high level, interpreted Examples: ARexx (free with Workbench 2 and up)

PASCAL If the polytechs taught BASIC, the universities taught Pascal. It is much more structured than BASIC and teaches a better style. The HiSoft implementation is superb and can be used for almost anything C would be used for, but is still easier to use.
Ease of use: moderate
Speed: fast
Suitable for: utilities, games, applications
Form: compiled
Examples: HiSoft HighSpeed Pascal

OTHERS There are plenty of other examples of programming languages around from versions of FORTH (a language written to control radio telescopes which has amassed a cult following) to more structured and data orientated environments such as Oberon.

Finally, let's not forget FORTRAN, COBOL and LISP: none of which, however, are particularly useful on the Amiga.
languages is in the way they are translated to machine code.

Compiled languages do the conversion al in one go. The compiler program takes the source code - the lines of text and gobblede300 k you type into a text editor - and converts it into machine code. There are usually a few intermediate steps as it gets converted into an object line and then linked with extra thraries and so on to produce the finished executable code.

The advantage of compiling a program is that it will execute (run) very quickly: good zumpilers can produce machine code which is pretty close to being as good as even a dedirated programmer could create by hand. The finished program will also 'stand alone' which means that no other programs are necessary D use it, and you can sell it or give it away as rou see fit.

The disadvantage is that the compilation arocess itself is lengthy and complicated: mimpilers are not easy to write and so are sually expensive. Languages such as $C$ and $E$ are compiled.

Interpreted languages are different. In this ase a separate program looks through the surce code line by line, and translates and erecutes it on the fly. Obviously this is slighty slower but it does make developing proprams quite a lot easier (you can make a thange and see what happens without
having to re-compile the entire program) and as interpreters are easier to create they tend to be cheaper.

## High Vs Low Level

There are other distinctions to make between languages. The difference between something like ARexx and something like Assembly language is defined as the 'level'. ARexx is 'high level' because it is aimed more at people, whereas Assembler is 'low level' because it is closer to the hardware level of the Amiga itself.

As an example of a particular High Level

$\triangle$ Valhalla was written with AMOS. AMOS has ready-made commands Jor meving graphics around and playing sounds, but it's not that fast.
language, think of the AMOS or system. By including lots and lots of specially written commands to create and move graphics, change colours and play animations, AMOS is a lot easier to use from a human point of view. If you wanted to write a similar program in C or Assembler you would need to start from scratch with code to open a screen, draw a pixel, alter the pen colour and so on. Of course, the C or Assembler version would be a lot more flexible and fit more closely to the design, but it would also take considerably more time and more skill to write. John Kennedy

$\Delta$ Image Studio is another example of what can be done with our Amiga E cover disk. You could do the same with a bit of practice.

## The Amazing Surf Squirrel Interface

The powerful Surf Squirrel ${ }^{\text {w }}$ interface is the cutting edge technology for easy A1200 expansion. Providing a high performance SCSI-2 interface, Surf Squirrel permits easy addition of up to 7 SCSI peripherals, such as a hard disk, a Zip" drive or a CD-ROM to your A1200; Squirrel is also the only SCSI expansion that is hot plug and unplug, requires no opening

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# Pedal to the Metal 

## A thumping soundtrack is an essential part of any good racing game, and Leading Lap is no exception. We go behind the scenes to find out how professional rock musicians are making it big in Amiga music.

(1)et's rock! Black Legend's turbo charged race 'em up Leading Lap is poised to revolutionise not just Amiga gameplay but Amiga game soundtracks too. Taking a rather different approach to the norm, developers Kellion are hoping to get heads banging the world over with the game's rocktastic audio feast.

If you were to get yourself a CD-ROM and look through the rock section of its music modules directory, you'd probably come across a motley crew of badly sampled and clichéd drum patterns and horrifically out of tune chord combinations. If you're really unlucky, you might stumble across an attempt to recreate a Slash guitar solo using that single note guitar sample from taken from the ancient LED Storm game tune. There are exceptions, but basically that's the state of rock music on the Amiga. Until now that is.

## In the Studio

Big time record producer, accomplished axeman, and let's face it, blond bombshell John Haines is the main man behind this push for musical advancement. With a

$\Delta$ The silver hit near the top of the rack is John's guitar amp simulator - ideal for real grungy sounds.

$\triangle$ John 'Goldilicks' Haines is the man responsibite for Leading Lap's head-banging theme tune. Phwoarr!
career built on song writing. production work and session playing for the world's top international rock bands (did someone say Bon Jovi?) John was the obvious choice to provide the Leading Lap soundtrack. When originally presented with an Amiga, OctaMED and a disk of sound samples, then asked to create a hot rocking soundtrack that fits into 300 K and plays back on four tracks, John's initial reaction was one of disbelief. A few hours of frustrated keyboard prodding later, John took a break and laid down a few thrashing guitar riffs onto his Mac-based hard disk recording and sequencing system. It was then that he decided to ditch the traditional module creation method in favour of a far more flexible system. Why not produce the entire soundtrack in the studio, then port it to the Amiga?

## Free at Last

Free of the constraints of standard module composition techniques, John then set to work on a 'real' soundtrack. While for some record producers, a mixing desk that looks like the bridge from the Starship Enterprise is the mark of a good studio, John knows there's more to top recording setup than
banks of knobs and faders. His impressively miniaturised studio packs the power of some of the biggest traditional studios, but cost a hell of a lot less and offers far greater flexibility.

Based around an Apple Mac and a combination hardware/ software digital recording system, it merges hard disk digital audio recording with realtime MIDI sequencing. So why doesn't he use an Amiga? He didn't know the Amiga could do most of this (and to be frank, at the moment the Amiga couldn't quite do everything this Mac system can do, such as the realtime effects modules that plug into the Mac for instance). The advantage of this system over a conventional studio setup based on a mixing console and a multi-track tape recorder is that audio and MIDI music can easily be recorded, edited and played back from one integrated mixing and sequencing panel on the computer software. MIDI tracks can be committed to audio at the drop of a hat, and live vocals and guitar parts can be recorded via effects units and amp simulators alongside the MIDI music.

Unlike recording to tape however, the digitised audio can then
$\Delta$ With the computer-controlled mixing, a modest Mackie $8: 2$ mixer is all that's required.
be manipulated and edited until the cows come home.

The upshot of all this is that John ends up with a full CD quality stereo soundtrack with all the advantages of both live recording and MIDI sequencing. So how does this make its way to the Amiga version of Leading Lap? Simple, the whole soundtrack is sampled into the Amiga, chopped up into loops, fills and one-off sections, then pasted back together in OctaMED to form a series of full bodied cone-rattling rock tracks. So it loses something in the transition from 44.1 kHz in 16 bits to its 11 kHz 8 bit Amiga form, but it still rocks. See it's not all techno you know! Check out Leading Lap and find out for yourself! $\quad$.

## Tony Horgan



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erts alike.


(1)he recent CineWave Media conference in Brighton was the kernel of all sorts of debates concerning the future of electronic media and the part it has to play in the television industry. The role of the Amiga was heralded by the recently acclaimed Amiga animator, Ruth Lingford.

The Amiga couldn't have asked for a better champion of its cause. Lingford's erotic animaton "What She Wants' which was covered by Channel 4's Fourmation series has earned her a Cine Women nomination and

a Death and the Mother: Lingforf's soon to televised animation is a sad tale of a mother surrendering her laughter up to death. Lingford has effectively used German woodcuts to convey the stark message behind the tale.

her more recent project 'Death and the Mother' is to be televised next year. Both of these animations and much more of her work were produced solely on the Amiga using DPaint4.

With a Fine Art Degree from Middlesex Polytechnic and a MA in animation from the Royal College of Art to her credit, Lingford, a one time occupational therapist only discovered the joys of animation on the Amiga whilst tinkering about with her children's A500. She was delighted to discover what her "trusty little Amiga could do." From these

humble beginnings she has upgraded to an A1500 with a SummaSketch III tablet board and then onto A4000 with a PARcard. Although she has upgraded her equipment her method remains the same: using the lightbox to draw her stills on and then using DPaint4 to create frame by frame animation.

## Sex and drugs

Most of Lingford's work has previously been either of a sexual (What She Wants) or social comment nature (she did a 20 minute animation on the perils of glue sniffing, see top left for some stills of this project). The attention her animation "What She Wants" received won her place as animator in residence at the Museum of the Moving Image which involved allowing herself to be observed by the general public as she worked. She used this time to perfect her new project: Death and the Mother.

This new animation was a departure away from the usual topics of eroticism and social comment. An adaptation of a Hans Christian Anderson tale, it is a melancholic story of a mother who decides to surrender her daughter up to death's spirit once she has been allowed to glimpse into her child's future. To convey the stark atmosphere to this story Lingford has employed the visual style of German woodcuts. And, if you take a look at the screen shots here you can see what I mean.

Thanks to the cost efficiency of the Amiga she is delighted that she can spend her $£ 55,000$ budget for Death and the Mother on luxuries such as getting an actress in to help with perfecting the movement and voices of the characters.

## An inspiration

Ruth Lingford's work is just one example of the amount of


Ahove: here are some stills from the acclaime What She Wants animation, as seen on Chamel 4 Fourmations series, which explored the area of sexuality in todar's ilite.
avenues that are opening up to Amiga animators. She has started up her company, Own Brand, and as well as teaching animation she is currently working on projects for Peter Gabriel's multimedia company. It seems that the entertainment industry are waking up to the fact that good quality work can be created on a low cost budget without compromising creativity. And about time too. Lisa Collins

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(3)The recent merger of Time Warner Interactive and Warner Interactive Entertainment (who own Renegade - see news) begs the question: why were they seperate entities anyway? There just aren't enough good games out there on any format to justify duplication like this, even with a multinational company. Software companies need to spend money on product development not corporate philandering. Also, why has everyone been scrambling around for the last 12 months adding the title Interactive to their name? Gremlin Interactive, Sony Interactive, 21 st Century Interactive Entertainment? The whole games publishing and development world has gone mad, readers. Bonkers.


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# Tracksuit Manager 2 <br> ■ Due For Release: December ■ Publisher: Alternative (0) 097779777 

(A)quicker, easier to get around football management game is what Alternative
are promising with Tracksuit Manager 2. From what we've

$\triangle$ Tracksuit Manager 2: coming soon.
seen of it so far, the loading times seem marginally quicker and the ability to call up information about any team or player in any part of the menu certainly makes it easier to get around. Whether it will make the game any more enjoyable remains to be seen.
As well as having all the usual reams of football management game type statistics, Alternative have spared a thought for those of you who don't like messing about with mathematical
equations and would rather get on with the game instead. They have introduced concepts like "good, very good, and poor" which saves time having to work out percentages and performancerelated statistics.

## The in-match

commentary is there although so far it is a dodgy digitised picture of Alternative's Roger Hulley and Kevin Pickin with badly drawn speech bubbles coming out of their mouths. Hopefully, it will be tightened up by the release

$\Delta$ Iracksuit Manager 2 aims to he very user friendly, making it easy to get any information you need at any point in the game.
version. All the usual management game options should also be in the final game: buy and sell players, transfers, leagues and so on. Expect to see a full review very soon. Lisa Collins

# -上JJ」es. <br>  

■ Due For Release: January ■ Publisher: Vulcan © 0705670269

(1)t seems as though Themepark may have a worthy contender, in the shape of Hillsea Lido waiting in the wings. Vulcan Software, the people who brought you the Valhalla and TimeKeepers series, are trying their hand at something new, this time it's a
seaside management simulation. The aim of Hillsea Lido is simple: you start off with a small bit of beach, a promenade and a theatre. From these humble beginnings you've got to build a massive, Blackpool style, thriving seaside resort full of punterattracting stuff such as shops and water sport facilities. Like Themepark

[^2] you've also got to keep the punters happy, providing them with entertainment and things to do, and make sure that they go to the show that you put on in your theatre at the end of every week. So far it all sounds like Themepark. A parallax scrolling game you can choose
to watch your tourists enjoying themselves (sunbathing, scuba diving, paragliding) or you can go into other screens where you will be able to buy shops and funfair rides, hire staff, book or watch a show.

So far so good, it all sounds fun and the graphics look cute though not the same standard as Themepark. We'll just have to wait and see whether the gameplay is up to the mark. Hillsea Lido will be for all Amigas with 1 Mb . We should be bringing you a review very soon. Lisa Collins


A It's a tourist's life for me: paragliding, wind surfing ... sounds just like your average Butlin's holiday, doesn't it?

$\Delta$ You've got to produce a show in the theatre at the end of every week so a lot of time is spent advertising it.


## Pengulins <br> Due For Release: January ■ Publisher:tha


he old adage round and round she goes, where she will stop nobody knows' applies are Originally to be published av Pasputin, then Alternative, ten back in the hands of the -icce Scott Hayne, Penguins Ins been bouncing from pubther to publisher. Hopefully, it -nifl a permanent home - because it looks like it's zinge to be a stonkingly pood game.
A la Lemmings style, you've _ lesd yout band of merry nen ivell, two penguins anyzanf around a maze made up


of over 60 levels. It's a puzzle come platform affair where you've got to lead both of your penguins to safety. If one dies, you can't continue with the other. It looks good so far, the graphics are OK and it all seems fairly playable. Most of the early levels involve pressing switches and climbing up ladders. There should be a two player option as well so you can invite a friend around to join in on the fun. Lisa Collins

## Goming soon on Amiga

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Price: $£ 29.99$ ■ Publisher: Ocean © 01618326633
Worms are not the cutest creatures to base a game on. They're not furry, they don't jump over cliffs voluntarily and they're not Norwegian. They are armed and dangerous though ...

## Do You Come Here Often?

OK, OK, you should have heard of Worms before
(we've previewed it often enough) but if not let me fill you in, briefly, on what it's all about.
Worms is based on that old gaming gem
Tanks. Basically you and an opponent lob bombs at each other, which inflict damage dependent on how close they land to your character. But in this game you have worms instead of tanks and there are 15 weapons to choose from along with six other items of inventory which are designed to make life easier and more interesting. These include a teleporter, a bungy rope and a pneumatic drill.
You have a team of four worms and you can name this team whatever you like (up to eight characters in length). You can also name each worm. Then simply select how many human and computer players you want to play against, tweak some game options and start.
Worms is a turn based game, with each player having the opportunity to move one worm at a time, select a weapon and try to kill or damage another player's worm (or worms, the more the merrier). There a user definable time limit on each turn of 10, 20, 30 or 60 seconds.
And that's it.
Simple, effective and damned good fun. It's addictive too, with the sort of gameplay that made Lemmings and Cannon
Fodder what
they were.


(1)ife is never predictable, as life insurance companies never tire of telling us. One minute you're enjoying a full and varied existence, with friends, loved ones, milk and honey all around and the next minute some plonker swings down on a bungee and knocks you over a cliff. Sounds pessimistic? Well just be glad you're not a worm.
Worms is a game we actually previewed twice. Once way back in February when Team 17 were still going it alone, had just discovered Worms (then under the working title of Total Wormage) and it was a raw, but exciting game to play. Then, two months ago, we were presented with an almost finished version. A lot happened in the interim months. Team 17 had signed a distribution deal with Ocean that not only opened up new international territories for them, it also paved the way for what was now simply called Worms to be converted onto every conceivable computer and console format there is. This caused big delays though, considering that, under original plans, Worms was due out around Easter '95.

Has Worms benefited from this delay? Almost certainly. Despite what we normally say about other games machines the very fact that it's been developed across so


A With a bang HRH's last worm joins the other little white cresses on the side of the mountain.

## Angles Of Fire

Some weapons are direct aiming ones, like the shotgun, the Uzi and the minigun. Others are indirect like the homing missile, grenades, cluster bombs etc. Using grenades is most like the Tanks games of old. You need to get the elevation angle right then push the power bar to the optimum point for a direct hit. You've also got to set the timer for the grenade you don't want it going off in the air half way to its target.
Even homing missiles aren't straightforward. The default setting gives you two homing missiles and the procedure for launching them is ostensibly simple: select the missile, point it at what you want to hit and press fire. But it's not so easy in practice. The amount of power you put into a homing missile shot will determine what angle it will hit its target at. If you want a homer to hit a worm who is hiding underneath an overhang, for instance,
 you will need to apply lots of power to get it to go further than its intended target and then curl back underneath the overhang to hit it.
But best fun of of all is the bazooka.
Although generally a direct fire weapon you can use the bazooka as a powerful indirect fire one by using the wind direction to your advantage. If there is a strong wind (which is indicated in the left and right bars above the power bar) you can fire your bazooka shell up into the air and the wind will curl it back and make it drop from above like a grenade. This is real show off territory: aiming the bazooka using the wind is difficult, but spectacular if you get it right.
many platforms has led to a number of enhancements which have made the Amiga version more playable. A good example would be the menu tool bar. In the original Amiga version you accessed all weapons and aids using the $F$ keys. Fair enough if you have a good memory. But because it had


Simpson's sife this strategity placed girder might save Bart Simpson's life ... if it's placed right.
to work on consoles, which don't have F keys, the tool bar was invented. When you become an experienced Worms player you will no doubt return to the F keys and rarely use this feature, but as a beginner it is invaluable in helping you to get to know the various options at your disposal.

The graphics have been tweaked too, though in fairness to its inventor and programmer, Andy Davidson, they haven't changed much in basic detail. Various levels like Hell (which has apparently been banned on the Playstation version 'cos Sony didn't want burning crucifixes in the game), Desert, Forest, Mars and Snow serve up massive variety. There are allegedly 4 billion possible game scenarios. There are
also some hidden scenarios which, with some experimentation, will appear.

Landscapes like Snow and Mars have specific characteristics which suit the terrain: Snow is slippery, so worms will slide all over the place when hit; Mars has low gravity so they can jump much further than normal. The scrolling and parallax are as smooth as snails slime too (I mean this in a complimentary sense) - the extra time on development really does show.

## The dark side

As strategy games go Worms can be as simple or as complicated as you like. It's not just a matter of lobbing bombs at the enemy, it's all about how you use hiding

## The tool bars ... <br> - =

THE HOMING MISSILE. A close relative of the bazooka which can cause 50 points of damage for a direct hit. Although it will home in automatically yeu still need to he careful with the power bar. You usually anly two get missiles.

THE CLUSTER BOMB. This version of the grenade splits up into five smaller hombs. While the grenade can cause 50 points of damage, each of the five cluster hombs cause a max of $\mathbf{3 0}$. Five cluster hombs are available.


THE BAZOOKA. What fun. This can cause 50 points of damage if it's a direct hit and you can use the wind to effect its course. The hazooka will damage your own worm if he's too close to the target, though. No limit on ammunition.

THE GRELIADE. This is an indirect weapon for lobhing at opponents. Grenades are not effected by wind strength or direction hut you need to set the fuse (one - five seconts) and iudge aiming angle and hounce. Unlimited.

THE SHOTGUIL. With suitable sound effects, the shotgun is the only weapo which, allows meltiple shots. Wwe to be precise. Although each shot carries a ma precise. Although each shot carries a maxing worms into mines and off elges.

THE UZI. Familiar fare to all gun maniacs, the Uzi has a particularly satisfring machine gun sample and can cause a lot of damage to more than one worm in the way. You need to he able to aim directly at your opponent though.

THE DRAGON BALL Similar to the fire punch, the dragon hall doesn't ievolve physical centact. It sents a blue ball of light into the other worm which will knock them horizontally. Once again, useful for knocking opponents off screen.

LaNO MINES. Land mines are littered throughout Worms levels hut you can place more if you want Yeu can use them like draamite or else place them on areas you want to protect Theycause a max of 50 points damage.

THE FIRE PUICH. Fans of games like Streetfighter II will appreciate this one. To use this you stand next to another To use this you stand next to another worm, select it and knock them several paces. It's most useful if you are trying to knock a worm off screen.

THE DYMAMITE. Tee, hee, hee! This is what a worm exclaims when you get him to drop a piece of dynamite. Ant with good reason. It can cause 75 points worth of damage - to your worm too unless he moves quickly.

## Air Drops And Additional Weapons

At times a crate will be dropped somewhere on a landscape by parachute. Hidden in it may be extra standard weapons, like dynamite or an air strike. But if you're lucky you might just pick up one of the following little bonus weapons of mass destruction.


SHEEP Bomb dressed up as mutton more like! The sheep is basically a hopping, bleating stick of dynamite. It might look harmless, but point it in the right direction, let it hop to the worm you most dislike and press the space bar and it will cause immense damage. It also tops the hilarity stakes because of its excellent sample.

BANANA BOMBS These are roughly based on the cluster bomb but infinitely more destructive. Each banana will yield 75 points damage and should you be lucky enough to get one it could win the game for you as long as you don't kill yourself in the process. Thrown like a grenade it is unaffected by wind.


MINIGUN This is, without doubt, my favourite weapon. It looks and sounds awesome and really rattles opposing worms. The big daddy of the Uzi is rare and much more destructive but using it is very addictive when you finally get one. (Left) Keef, from the Stones, threatens one of the HRH team.
places, create safe tunnels, use the bungy, the teleporter and the girders. Team 17 have put 1000 s of man hours into playtesting Worms and they reckon there's two ways of approaching the
game: Good and Evil. If you're playing on the side of good you don't play dirty: you don't hide and you don't dig tunnels or teleport your Worms into difficult to reach places. Doing this is lazy,
they reckon, and it's called 'The Dark Side'. Other Dark Side tactics include hiding a worm until the end of the game and then polishing off the opposition by emerging and pneumatic drilling them to death.

All of this mayhem is accompanied by ridiculously cute and funny sound samples. The A500/600 version is a bit short of these, but the A1200 is positively brimming with fun noises and statements. Worms shout 'oy nutterl', 'revenge' and 'I'll get you' regularly and when dynamite is dropped they giggle maniacally. Air strikes and weapons drops are accompanied by jet aircraft noises and thunder and lightning strikes every now and then.

If you want a change from the English samples you could always load up German or French versions, where threats are made and fun is had in another language. This does not effect gameplay because instructions, weapons, etc don't change language but it adds to the mirth. OK, it's not Linguaphone, but you might just pick up some useful phrases. One thing to be wary of though is that while these sounds are good fun for those playing Worms they can get very. very annoying if you're in the background listening. If the volume is turned up you can expect a thick ear before long.

## Lemmings?

Some years ago Lemmings took the world by storm with its relatively simple but engaging gameplay. It was often frustrating, but always funny and the big bonus was that it appealed to all ages and to both sexes. The Lemmings sprites were cute too Worms is made from the same mould, and given that it is being distributed worldwide by Ocean


Drop a piece of dynamite and run away as fast as possible. Dynamite causes 75 damage points.


A This is the Mars scenario. OJ Simpsen is, allegedly. trying to hide using the Blowtorch to hury himself.

## it could be as successful.

It appeals equally to hardened games players and computer virgins because of its easy to use interface and immediately involving gameplay. If I was to involving gameplay. If I was to
make a must have-recommendation for a game this Christmas, tion for a game
Worms is it ...
Alan Dykes

## WORMS


(\%) TELEPORTER. One for Star Trek fans. lins of these are supplied and they mable you to move an endangered worm as somewhere safer or to pick up


E AR STRIKE. You normally only get ane air strike per game hut it is pretty isselul. Basically a hig plane comes alinaty and drops a cluster of hombs. If nou do this on a bridge it will nearly annihilate it and any worms on it.

THE PNEUMATIC DRILL. If you want to go digging really seriously then you need to use the pneumatic dritl. This can create a pretty nitty hiding place for one of your worms, hut he careful about weapons dropped from ahove.

THE NINJA ROPE. I'll let you in on a secret: this used to be known as the Bat Rope hut Oceant, spoilsports that they are, reckoned that copyright problems would occur as a result. So we have the ninja rope instead.

SIII YOUR 60. This nice skipping rope allows you to make the ultimate horing statement ahout your life and gameplay abilities. Still, there may he moments, when a worm is in hiding, that this is necessary.

I SURRENDER. If it's dinner time, if it's too late in at night or if you get really anmoyed with a computer opponent then you can select surrender. Or if there's a hig yellow streak all the way down your spine!

THE GIRDER. Fans of In Bru will appreciate this one. If your worm is in a difficult position or if you need to move somewhere hut the landscape won't let you, why not make your own mini hridge with a girdes.

THE KMMAMAZE MOVE. Ha so! It's not very politically correct and you'll lose your own worm hut hey, it's better to werm out than fade away! This move will shoot your warm through anything, even hills, to explode on impact.


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पWGB5-2. WORKBENCH BACKDRO


पSTG6-3. STARTREK GAMES

 EPIC Marketing



A Even parrots can help you out in Flight of The Amazon dueen.

$\triangle \mathrm{A}$ Rotwweiler is protecting that door. Mayhe he'd like a copy of the "Rocket" comic. Probably not.


A Talking to the local witch dector will reveal a magic secret. He's a bit grumpy though.
was previewed by us way back in November 1994, when we did an interview with John Passfield and Steve Stamatiadis, otherwise known as Interactive Binary Illusions. It suffered a series of setbacks on the Amiga, despite the fact that it originally started out being programmed on this platform. It was originally due out by Easter '95: and it's here now. At the time they were promising a humourous adventure, and

## A Quick Puzzle Solved ...

Without giving much of the game away here's a pretty obvious puzzle which needs to be solved after you've got to Brazil, but before you start the adventure in the jungle. Your plane has crashed in the middle of a pirhana infested swamp and you need to get to shore. But how?


Hmm ... these lily pads look as though they could support a man's weight. Now if only I could find somelhing to row with.


Mayle Sparky can help. Have a chat with him. Yes, yes, very well, stop gilhering on ahout comics and get to the point!


Oops, the plane's crashed and if I'm not mistaken it's half flooded. It looks as though they're in real troulle. Help! What are they going to do?


Aha! II it can no longer propel the plane through the air mayhe I cam use this hit of the aircralt to get Joe and the crew through the water.


Aha, this could he interesting. I'Il wager those pirhana are hungry. Perhaps some of Sparky's heef will to the trick.


Frayed tempers and arguments on the plane make things worse. Faye is mot happy and Sparky looks somewhat preecempied


Very sensible. But not much help to me. Mayher Joe can kill them with his hasehall hat? Doh. What a stupif idea.


And so, the mystery is solved. Don't think you're getting off lightly here though, there's still some more items missin!
having met them I was in no doubt as to what the sense of humour would be like. Did they pull it off though (no smut intended, honest)?

## A bit funny

Well, yes. Flight is in fact quite funny. It's very comic book style humour, drawing in-jokes from the world of adventure and sci-fi movies, mixed with some harmlessly smutty remarks. I say quite funny because unfortunately the Amiga version does not benefit from the excellent range of voices playing the parts of the various characters on the PC CD-ROM.


This was originally planned for the CD32 too but this version has now been scrapped, which is a pity. I've played it on PC and the voices (with Penelope Keith, of all people, included) turned it into a much more interactive experience. This is why we all really need CD-ROM drives folks!

Don't get me wrong though, that's about all that's missing. The on-screen text is the same as the spoken word, and is very funny in places. The situations too are gigglesome as are some of the very odd characters you meet along the way. Like listening to Billy Connolly on a Walkman and laughing out loud on a crowded bus, it's not a good idea to play Flight while other people are present. Your constant sniggering will annoy the hell out of everyone else - as will your cries of frustration at not being able to solve a puzzle.
The graphics too are nearly identical to the PC version, and are impressive. All of the charac ters are detailed and the background scenery is superbly painted (Interactive Binary Illusions originally used DPaint for everything). There are neat, almost unnecessary touches too, like the provision of distant back-
ground horizons, barely visable, but beautiful nonetheless. In fact some of the graphic touches come as a very pleasant and unexpected surprise, breaking from the norm and giving you motion or smooth scrolling screens. Quality stuff.

Although voices are absent you do have to do a lot of talking to other characters to solve this adventure. As usual, clicking on the talk icon and then on someone (or thing) in the game will bring up a menu of phrases. The type of response you get will depend on what you say and you sometimes have to delve really deeply into a conversation to pick up an essential snippet of


A Hints ahout what you should do next are littered all over the place. You just have to interpret them.


A Flight is quite fanny at times. Strange objects an people add to the game's appeal.
information. Joe's speech menu usually contains both straight and funny phrases, and you can seriously annoy a character by saying the wrong thing to them. Luckily you can also talk your way back out of sticky situations too

## User friendly

Control is by mouse, using the left and right buttons to select and use icons from the menu ba at the bottom of the screen, with the on-screen pointer as a positional aid. One thing that really puts Flight up on a pedestal as far as gameplay is concerned is the fact that it's not too fussy about how precisely you point at an object. Each scene has a limit ed number of objects which can be examined and possibly picked up and used - not too many, just a comfortable amount. But because each object has quite a wide selection field you never have any problems trying to click on it. Being too pedantic about pixel precise pointing has marred many an adventure in the past.

At the far right-hand side of the icon bar is the inventory. This is a strip that holds as many objects as you need, but only


A The requisite mad scientist. If you're going to write a graphic adventure don't forget to include one of these. They spice up the plot ne end.
displays four at a time. If you want to make use of an object in the inventory all you have to do is select the Use icon, then the object, and point where you want to use it. Flight will tell you what you're proposing to do eg,
Throw the chicken at Anderson's henchmen", and then right clicking will make Joe do the deed.
Some objects in the inventory need to be combined to produce other objects and while this is not new in adventure games, the whole process is made smoother by the Use icon. You simply click on Use, then on 'item 1', whereupon a message appears saying "use 'item 1' on ...". Then you click on what you want to use it with in the inventory ie, 'item 2' The two will then be combined and a new object icon will replace them.

## Jazz and jungle

Although there is no voiceover in this version the music is good. Once again though, you'll drive neighbours mad if it is turned up att the time. The basic tune changes with situations and locations, but it has a jazzy feel to it, in keeping with the 1940's theme of the game. The background iungle sounds are good too.

In terms of difficulty Flight Of The Amazon Queen gets it about right. It's so long since l've slayed a decent adventure that I thought I was a bit rusty, but the logic and the humour of the puzzles brought right back into the flow of things. Although some of the problems are frustrating they never get out of hand. A quick coffee break and some lateral thinking will usually solve the situation. Indeed some of the solutions are ingeniously well planned, so once you've got there you'll feel really satisfied.
In an adventure starved world, Oight is a saviour. I'd rate it as the best humourous graphic adventure on Amiga since Monkey Island: but the cynics mould say that there haven't been very many since then anymay. To hell with them. I like it and I've a feeling you will too. Alan Dykes

a Ahtn Pessfield and Steve Stamadiatis the game's mine and designers in relaxed studio mode.

## Why Not

 Talk It Over ...You will meet rather a lot of characters to interact with in Flight Of The Amazon Queen, some of whom are detailed below. Many are very quite forthcoming, but there are difficult ones too.

## JOE KING



The 'hero' of the show. He's happy go lucky but it's your job to whip him into shape.

## SPARKY



Joe's mechanic and friend. He loves comics and idle banter which he has lots of

## ANDERSON

$\qquad$

One of the bad guys. Anderson tries to steal Faye (and her money)

## FAYE



THE LOCAL CHIEF
4 \%it Not very easy to
 talk to, because he only speaks pygmy. But there's a way around this.

## THE BRAZILIAN BABE



## She's talkative

 but you'll need more than words to get what you need from her.
## THE APE



## Flight of Amazon Oueen

workhench version...........3.0
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OVERALL

| The hest |
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| fun adventure |
| in ages. |




Price: $£ 25.99$ - Publisher: Black Legend(© 01438840003

## An updated F1 or an excellent new track racing game? Leading Lap takes pole position and crashes through the sound barrier ...

(1)ony Dillon, our ex games editor left CU Amiga Magazine with images of regular hours, good pay and director's perks swirling around his head. In legal partnership with an American man called Kelly, he gave birth to his long planned brainchild: Kellion Software. And they promised some great games.

Two weeks ago a worn out, overworked, impoverished Dillon showed up at our offices, asking the price of a cup of tea in


AThe Formula 1 car is the easiest to control but is also a bit slow and flimsy
exchange for a couple of disks. He said they would change our lives and hopefully his - forever. The disks contained Leading Lap.

Leading Lap is designed to be an F1 for the mid nineties. As soon as it appears on screen you immediately think: F1! But a quick glance back at the original is sufficient to show just how far things have come - at a price though.

This price is speed. Although Leading Lap looks fab, on an A1200 without acceleration it's still marginally slower than the original. Mind you, F1 was designed to run fast on an A500, so the A1200 is a a bit of a luxury. But F1 looks dated by comparison, and the speed difference is not enough to really effect gameplay, especially when you take into account the realism offered by the graphics.

## Ridge what?

The PR banter compared this game to Ridge Racer. This is
stretching the truth somewhat. If comparisons are made then yes, this is a smooth polygon racing game



A Leading lap will record hest laps and hest overall race times. In Championship mode you can save your stats and scores.
and you can view the car from a number of angles, including an outside fly-by position. Taking the comparison a bit further though, its resolution and smoothness just doesn't compare nor does its detail. At all. But we are talking a 2 Mb Amiga here, and Leading Lap is being designed to run on ECS machines too, though we haven't actually seen this version yet.

The cars have realistic up-down nose movements as they accelerate, though sideways movement is limited, ie the cars stick to the ground as befits vehicles shod with racing tyres. The spins and skids are spectacular. Especially so if you are using one of the three outside views.

These outside views give you a much broader look at the tracks and surroundings, and the game is actually playable in the fly-by mode. Difficult, but playable. Personally though I prefer the
$\Delta$ There are lots of detail and graphics options to help you grapeed leading lap up.
sper
cockpit view because the steering wheel accurately emulates your directions and this makes it a more thrilling driving experience. Checking out the backgrounds is rewarding too, because as you enter each race and go through it the broad daylight you start out in changes to twilight, slowly but surely.

## Serial killer

Happily a serial link up is possible and two player grudge matches are good fun. Unfortunately it's just you against the other person, the computer players don't join in. This means that the fun of serial play peters out quickly, but it's always good to return to this mode.

One other area where Leading Lap really excels is in the music department. Although the engine sound is a bit bumble bee-like, the brakes are great and the metal guitar sound track is as good if not better than the one in Mad Mark Sibly's Gloom. It's just such a change from the monotonous housey or semi-cabaret rubbish in most games its almost worth a Super Star award for this alone.

## The Tracks：

There are 15 tracks in all． Here＇s a variety of them．The lindscapes vary and the com－ slexity of the tracks means that they don＇t get dull．

a $k$ coossroads cars will divive across straight in front of you at full med．This adds to leading lap＇s realism．

But I＇m not going to give it an award．Why？The reason is simple depth．As a racing game it is very good．Full marks to the graphics， the difficulty level，and the modem link．The speed is acceptable on an 21200 too and on an accelerated one or an A4000 it＇s very good． Hu can turn down various graph－ ics options to enhance perfor－ mance too．But in terms of lastability，there just isn＇t enough tong term depth．I asked Tony Dillon why there was no manual jear option and why there were no －pgrades to cars etc．He replied that in his experience they weren＇t necessary．But I think a game needs more than just race after ace to keep you busy．

I like Leading Lap．Technically
 as well． Alan Dykes

## The Drivers

Like all good arcade games you have the option of choosing which driver you want to play with．The choice will influence your driving style，though apart from slight blips in stability and traction it＇s difficult to tell the difference．Still it＇s nice to have the choice．

its great，music wise it＇s fab（although the engine sound does irri－ tate）and the tracks are fun，especially when you＇re racing in a crowd．With a track designer promised in the coming months it＇s a good game if you want to race and you want realism

## leading lap

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|  | overall <br> Fast，fun， furious，plus serial play． |

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## Koala: small, furry, endangered marsupial prone to falling out of trees. Coala: small insignificant helicopter sim - prone to falling out of favour.


eing the kind of busy journalist superstar I am (well, lazy git) I don't have the time to wade through the kind of complex manuals that come with most simulators. So in a way r's a relief to come scross something like Coala which, with the ist of keyboard con-
Tols in front of you, you can get rto straight away. But that's really as much as you can say about this zame's good points.
Simulators have died on their eet in recent years. I think this is a shame as I went through a phase n the late 80 s of single-handedly fighting off the red menace in ubs, planes, tanks and helisopters. Coala is just another erample of how bad things have tecome. There's a total lack of -ragination and to make things worse, technically this
zame is appalling.
When I look back to sms such as F/A18 rterceptor which ame out right back then the A500 was



Ane of the game's features includes a virtual cockpit which let's you turn the pilots head around at an almest 360 degree angle.
first launched and compare it to this, running on an A1200, I simply can't believe how bad this game is. It chugs along at an acceptable rate, but looks dire. The only time it comes close to looking good is on the external views and, as the game's impossible to play in those modes, that's pretty pointless.

## Pear shaped

As for the playability, well, in relation to other chopper sims, this is the poor cousin who doesn't

Arala doesn't compare to earlier flight sims such as Thunderhawk which looked hrilliant, raced along and an man A500.


Here we have the luxury of seeing our 'copter from the outside. Hmmm how very interesting.
even get invited to family funerals. Thunderhawk (a Core Design heli-sim from a few years back) was spectacularly playable, looked fantastic and absolutely haired along. On top of that it was easy to get into and, more importantly, ran on an A500. Now I know the A1200 can't compete with a 486 PC when it comes to the 3D graphics required for simulations, but When I look back to what programmers where squeezing out of the A500 a few years back, there's no way on Earth I can accept a game like Coala.

In fact, the only real improvement over older'sims I could find was the inclusion of a virtual cockpit. This lets you twist your pilot's head around to almost neck-snapping point to see what's going on around your copter. This is something PC owners have had in their flightsims for years now and they'll tell you that it's a next-to-useless feature any way. So, including it was a bit of a wasted effort. Even the user-friendly control system can't compensate for the fact that trying to pilot a helicopter is a bit like trying to fly a large brick through a hurricane. I'm no aviation expert, but l've seen that bloke who covers the alrshows on telly presenting programs where they've got military helicopters looping-the-loop. In Coala you're bloody lucky if you can get the damn thing to execute a three-point lateral turn in under ten seconds. It's so unresponsive. The only real way


A To kill anything you need to slow right down and rotate slowily. Pretty poot.
to kill anything is by slowing right down, rotating slowly and hoping you can get your shot off before being blasted. It's pathetic.

## True irony

It's ironic, really, that your real life Koala is a small, meek mammal prone to stuffing itself on eucalyptus leaves and passing out, because that's the kind of effect this game has when you play it.

My advice to any new Amiga owner (and there should be a few out there now) is, if you want a simulation, raid some budget software libraries for a few of the games I've mentioned here. They're everything this isn't and a hell of a lot cheaper as well. Mark Patterson

# Dungeon Master He ling <br> Price: $£ 44.99$ ■ Publisher: Interplay © 01235821666 

## Many years after leaving the eerie half-light that was Dungeon Master, the first true classic RPG returns in a new guise. Or does it?

(1)as time slipped by that quickly? Can it really be that long since the original Dungeon Master emerged from its labyrinthian manhole cover? Well, actually it is. It first arrived on the Amiga in 1988 and I remember sprinting down to my local house of games with a view to buying it. The devastating news on arrival was that to run it on an A500 you needed to expand an extra 512 k to give you 1 Mb . However, some bright spark decided that boxing a half meg expansion with a copy of the game for $£ 44.99$ would do the trick. They were right and DM's huge popularity was the reason most punters upgraded.

## That was then

Dungeon Master was a veritable revolution in games engineering with its point-and-click control and animated creatures. At the time no one had seen a title where you could actually draw a throwing star, or some other nasty sharp object from your backpack and then


A What's this er ... vertically challenged person up to? simultaneously throw it at the poor wandering beast that just happened to get in your team's way. Mouths gaped, electricity bills mounted and insomniacs discussed tactics during the few hours they allowed themselves to interact with normal humanity. DM's impact on the industry can never be understated. Look at the quantity of Dungeon Master clones which followed in its footprints, unashamedly copying every technique employed in the game.

## This is now

When I saw this game, it was like going back in time. It was a totally retro experience because despite the years that have slipped by, nothing seemeddifferent. In fact I had to check myself in the mirror to make sure I hadn't fallen through some bizarre hole in the time-space continuum and regressed to my teens!

A The Shullkeep castle on a rainy day. How's that for atmosphere?


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Thomas the Tank Engine Pinball

Price: £16.99 ■ Publisher: Alternative Software © 01977797777

©here's Ringo? The only thing missing in this conversion of the children's TV programme Thomas The Tank engine to a pinball game is the ex Beatle's sexy northern drawl. The cute choo-choos are there complete with resplendent graphics and indigenous sound effects. But no Ringo. This omission aside

it's still a good game anyway. Obviously aimed at the younger ones amongst us, Thomas is wonderfully simple to play. The shift keys act as your flippers, the space bar is tilt and the down cursor key is the spring which you use to catapult your ball onto the table. There are four tables in all and each one is based on the train characters from the cartoon series: Percy, Thomas, James and Toby. Designed by, the same company that made Pinball Mania, Spidersoft, each table comes with all the necessary pinball sundries: flashing lights, mushrooms, kickers, multi bonus pickups, passages, ramps, tunnels... it's all there albeit in slightly less sophisticated form. For example,
to pick up extra points you have to light up all the letters to complete simple words such as 'steam'. You can also make sure you aim the ball towards the letter you want by cycling through any unlit letters using the shift keys.

There are other concessions to the age group that the game is aimed at. Unlike games such as Pinball Mania there are only two flippers rather than four and there aren't any side gutters for the ball to go down, so the only way to lose the ball is through the flippers. The flippers could do with some power though.

Thomas a good pinball game



Price: £29.95 ■ Publisher: Impact Software © 01280850450
Football may be the sporting lifeblood of this country, but in this case it's more of a haemorrhage

Whether you're trying to dribble the ball or pass up-field the game just doesn't feel good to play. It's a hard
 ince the arrival of Sensi World Of Soccer, it seems as though developers tave pretty much given up trying to produce a game to beat C. Instead, you get what hapsens here, something which mempts to emulate it but, like 30 many other attempts, blasts wide past the post and ends - with its head in its hand. The similarities between this and SWOS are obvious from the moment you start playing. The graphics are incredibly - iar, although with larger -rites - a potential one-up aser Sensi if ever there was.


However, whether it's because the Sensi boys are complete lunatics and just have a lot more fun when they write games, or because Team's programmers just weren't up to the task, this game just feels so flat when you play it.

The action, like the gameplay doesn't flow as well as it should.


Off 2 which, if my failing memory serves, is somewhere in the region of five years old now. It's not a terrible game, just pointless when you consider what's available elsewhere.

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zlected everything. How do I get thwn to the bottom? I can only zet half way down with the one sece of rope and I can't get the uce from the corpse in the pond, thich I think is what I need.

Andrew Lee, Whereabouts unknown.

Nek up the banana and then walk
is she Forest to get a nice overhead
arw of the Island. Go to the Fort at
Ler volcanic hole (NW of the island)
and pick up the rope and the spy-
(axs. Push the cannon and pick up
tir cannon ball and gunpowder
which is revealed. Go to the river
Irkt (East of the island).
Fick up the rock (which is in fact - Hint). Use the gunpowder on the
min, then use the flint on the can-
met ball. This will cause the dry
ther and the pond to fill up
wate water.
Go to the pond at the end of the Tur and approach the corpse. Now $=\mathrm{s}$ will be able to get the second mer of rope.

## Dreamweb

- stuck on Dreamweb. I can't get the lid off the junction box outside 2e boathouse where Ms serwood is. I got the bottles

Adventure Helpline
outside Sparkey's Bar and filled them if that's any help.

Alex McIntyre, Northampton.
I don't think we'll go into how you filled the bottles, I really don't want to know. Of course if you were a sensible Amiga owner you would know the answer to this question. First you would possess a subscription to CU Amiga and then you would have seen the complete solution to Dreamweb which we previously published. Are we all wasting our time here or what?

Anyway, first 'examine' then 'use' the railings beside the boathouse. Go to the pipe and 'use' the pipe with the mug which was collected from Ryan's flat. Go to the junction box and use it, first by itself, then with the railing, and then with the mug. Walk to the hole in the balcony, 'examine' it, then 'use' it. Now turn to the back of this magazine, find the subscription offer and sign up!

## Simon the Sorcerer

I can't find the magical staff in Simon the Sorcerer although I have looked everywhere. At the moment I am at the doorstep of the Tower of Doom and I am carrying a spell book, scissors, bucket, hammer, beard, fire extinguisher, placecard, smokebox, hat, ladder, white spirit, rope and magnet, key, rock, feather, potion, gold coins, sousaphone, woodworm, matches, ring, small key, rat bone, hacksaw and breath mints.

Stephen Pattinson, Southampton.

If there is one thing that always makes me laugh, it's the mental picture of adventurers climbing over walls and fighting dragons while carrying what looks like the contents of an Oxfam Shop in their pockets.

You must have noticed the bell which is standing next to you. If you
want to get into the castle you need to ring the bell. Unfortunately, the bell has something missing, and in its case, it's the clapper. Now where do you think someone would send a piece of a metal bell to be fixed? Of course, the blacksmith. Scurry back to the old smithy and have a rummage around the bits and pieces lying on his table and you'll come up with something which will strike the right note.

## Kings Quest VI <br> I am having great troubles with

King's Quest VI. How do I get the serving maiden to accept the Beast's Ring?

## Oskar Arnorsson, Iceland.

Look, if the foolish girl won't take your presents of jewellery I think you should just parcel them up and send them to me. Perhaps you should first give her some flowers to loosen up her corset. I can't resist a man who brings me flowers, especially white roses. Although I tend to dress in black, my heart is as pure as the driven slush.

When you first meet her, give her a white rose from the Isle of the Beast. You'll find the roses through the gate near the Archer Statue (Use the shield on the archer to stop him piercing your heart with his arrows.) Talk to the girl using every option available, and when you have said your piece the game will take over.

## Lure of the Temptress

I have asked everyone in the village how to open the Were Gate, so I can see the dragon, but nobody can tell me. Do you know how? I would also like to know where I can find some cowbane to make the potion which must be used on the dragon.

Lee Henderson, Penshaw.
If you go to Smithy Street you'll be able to get some cowbane from the flower patch on the left-hand side of
the street. Take this smelly stuff back to Goewin and then go for a walk while she prepares the potion. Once that's done you can go the Severed Arms pub and have a chat with Ultar and he will tell you how to get through the Were Gate.

## Police Quest

I'm stuck on 70 points. I have flagged the drunk driver over and told him to get out of his car. I try to arrest him, but can't. Help.

Mark Anderson, Bridlington.
Of course you can't arrest him, for you haven't proved that he's drunk yet. After you flag him down, go to his car, stand by the door and give the following commands: talk to the man, Look at the man, Show your driver's licence, smell the man, administer the field sobriety test, handcuff the man. When the drunk asks to be cuffed in the front say, "no". Search the man, tell the drunk to get in the patrol car. Follow him to your rear door. Open the rear door. Radio for a tow truck. Take your prisoner to jail.

Before you complain that no-one could have worked out all of that solution, let me tell you that anyone could, if they had the game manual because it's in there. By the way, the drunk is a caricature of Al Lowe - the creator and writer of the Leisure Suit Larry games. How do I know that? Because I had lunch with him on board HMS Belfast years ago. Oh dear, what a name dropper I am.

If you've got a little problem that you are too embarrassed to ask a friend about, pop it in a plain envelope and send it to our Mistress of the Night and she'll take a close look at it for you.


HELLO BOYS, MAKE MY DAY. SEND ME IN SOMETHING I CAN GET MY TEETH INTO. I LIKE A NIBBLE NOW AND THEN.


Welcome to where we try to spoil every game by printing the cheats so you can complete it in three hours. And don't forget, thanks to those nice Ocean folk, there's a free bit of Hit Squad software for every tip printed.

## DEATH MASK Alternative

Chris Dunn has written in to remind me that, while we printed the first 17 codes for this game back in the October issue, we've yet to complete the list. So here they are. Cheers Chris!
level codelocation
62156 Dark Castle 84678 Training Ground 1 57093 Training Ground 2 29264 The Caverns 47446 Outpost 2A 75330 The Asylum 82855 Dark Castle Cellar 58474 Sub Basement 38392 Alien Correction Facility 55276 Cerebral Alteration Plant
$28 \quad 68163$ Research Room 2
2975156 Preparation Room
$30 \quad 70948$ Navigation Control
54334 Radar Station 39814 Weapon Research 52262 Central Core 73164 The Last Alien Nest

## FEARS

Guildhall Leisure
Carl Woodthorpe from Lincolnshire has found a nice little cheat for the

cover disk demo we ran a few months back. During the demo, press the HELP key and a little message saying 'protected' will flash up under your energy display. You should now have a circular power saw, 99 energy points and full ammo for all weapons (even the Plasma gun which you start off with, but without any ammo at all!)

$\Delta$ Find out how to get hags of ammo, energy and a saw in Fears.

## BRITAL SPORTS FOOTBALI Millennium

Craig Ridley has written in to remind us of some rather handy cheats for this jolly fun sport/violence offering. Fairly obviously, this won't work for CD32 users (cause you don't have a keyboard - ner ner ner ner ner!) Er ... anyway, sorry about that. Here they are.

To play in any league, hit the letter $L$ followed by a number from one to three (with one being the highest). Now press $M$ followed by a number from one to six to select which match you want to play in (e.g. L1M6 will take you to the last match in the top league). You can also press the following keys in the match for some smashing effects:
L for Lightening
I for Invincibility
G for the Walking Ball
R for the shield
S for the Hare
D for the Tortoise
F for the Freezing Blocks

## VIROCOP AGA

 RenegadeAn old chum from my The One days, Aberdeen's own Mark Forbes, has sent me a whole heap of codes for the excellent blaster
by those clever Graftgold chaps. You need to register your name as being "I am Legend" and then you can use the following codes for the following levels (I say that a lot don't l?)
WORLD
WORLD 4 STTPRBN KFFSJLP FKCSSTD FKVSMPL

WORLD 2 MPJPFNB GNRSTSH NGSDCNG DHBNPFJ

WORLD 3
RCLKKTV
JLCNSGD
BVMSVBK
BVSSCRG

## PINBALL FANTASIES <br> 21st Century

If the age of the games people send tips in for is anything to go by, you have to wonder if any new games are being bought any more! Either that or people are just looking for an easy way to grab themselves a software prize. Hmm . Anyway, because this is actually a top game, I'll allow


Bath's Stephen Morris the benefit of the doubt. This time

Just type in these words for a variety of ball-enhancing japes

## EARTHQUAKE

VACUUM CLEANER
EXTRA BALLS
ANDREAS
ULF
MARKUS
FAIRPLAY
DIGITAL ILLUSIONS
THE SILENTS
FREDRIK
OLOF
BARRY
CREW

## SENSIBLE WORLD OF SOCCER Renegade <br> Just in case any of you are still

 struggling to find good players fo your own teams, David Dunn has sent in a list of his suggested top ten strikers and where to find them - so here they are. Does anyone out there want to challenge this list? Let me know. Usual address please.1) Dennis Bergkamp (Inter Milan)
2) Rudd Gullit (Sampdoria)
3) Stan Collymore (Nottingham Forest)
4) Bryan Roy (Nottingham Forest)
5) Dejan Savicevic (AC Milan)
6) Alan Shearer (Blackburn Rovers
7) Andy Cole (Newcastle United)
8) Peter Van Vossen (Ajax)
9) Tatsura Mukojima (Shumuza S-Palse)
10) Roberto Baggio (Juvantus) Matt Broughton

And that's it folks. Please keep the tips and cheats coming in and can we have some more of the recent titles in there si vous plait, eh?

## POWER

The Power CD-ROM for the Amiga si00/1200 plugs directly into the ACMCIA port and provides a direct SC51-1 and SCSI-II interface, allowing 49 to six additional devices to be annected. What's more the Power I-ROM features a 'Hot-plug' which allows you to connect and disconnect the CD-ROM and any other additional tevices even when the Amiga is witched on.

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## The largest and most highly praised collection of high quality DTP \& DTV PD \& Shareware in AMIGA history!

We have seen almost every Amiga CD title in existence and sadly, the general trend appears to be "shovel as much data on as possible and to hell with the quality". The majority of these CDs are also developed as multi-platform CDs and while this may be advantageous for the company selling them, the end user is faced with a CD containing a high proportion of files that he probably can't even use. So what is left? A CD containing loads of badly organised directories filled with low quality (in some cases even pathetic) graphics. Being a little disappointed, the user then looks in the font directories and finds... a massive task on his hands... he has hundreds of fonts (that are probably duplicated many times) and no way of knowing what he's got! The poor end user is then literally forced into loading each individual font into an application, just to see what fonts he's actually got! If that wasn't bad enough, he then, quite possibly, discovers that most of the fonts have missing and/or corrupt files!
Some of these "so called" CD developers even get away with "shovelling" data from their old CDs onto new ones and releasing the new CD as "Professional". We could go on and on and on, but why bore you with something you already know? We genuinely feel that the current situation stinks and we at EMC are aiming to set the standard on which all data CDs on the Amiga will be judged. A big claim you say? Well, here's a brief insight to what is included on the EMC CDs and how the data is organised.
Firstly, these CDs are aimed directly at Amiga users, and are not designed for multi-platform computer use. This means that you don't get CDs loaded with PC files that you can not use! To aid in the rapid location of font, clipart and image data, each of the 3 CDs contains IFF font preview screens for every font (regardless of its format), you simply click on the preview icon to see the font! The clipart and image directories have been fully sorted and all directories include full IFF preview thumbnail index screens (and also descriptive filenames). Purchasers of the CDs will also have the option to buy a typeface book, published especially for the EMC CDs, containing font printouts!

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IFF Col Fruit, World Maps (of every country on Earth!), Ships, Vegetables.
GEM Arrows \& Stars, Borders, Buildings, Clipart, Office, OtherStuff, Photo, Transport.
IMG Animals, Cartoons, Food, OtherStuff, People, Plants, Sports, TheArts, Transport, Xmas.
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Horgan's Organ
Marvellous innit? Here we are hurtling towards what many had predicted would be a winter of discontent for the Amiga scene, and we're virtually
snowed under with new products and developments. While the fly-by-nights may have prematurely lost faith in our favourite machine, the real innovators are sticking with it to ensure we all have a healthy future with our Amigas.

Phase 5 continue their bid to accelerate every A1200 to at least 50 MHz 68030 spec with the fourth revision of their A1230 board.

Meanwhile CD-ROM has taken off as the fastest growing aspect of the Amiga market, proof of which is the amazing response we had from last month's cover CD and this month's abundance of new CD releases. This is backed up by the release of excellent new software like Softwood's Final Calc and others which have grown from modest shareware roots into fully-fledged commercial packages such as DICE C.

Some Amiga magazines have accused others of blind optimism, but we're not in the business of blinkering ourselves or our readers. If this whole thing really was going down the pan, do you think I'd still be here writing this? We have a business to run too! Let's get on and enjoy the Amiga and its unique community of users. That's something the other platforms will never have nor understand. Be proud of it, I am!

## Serious

## You know where to come for the best reviews of

 all the latest hardware and software, tested and rated as always by CU Amiga's experts.[^4]- Blizzard 1230 Mk IV ........................... 70

As accelerator RAM boards continue to get faster and cheaper. Phase 5's 68030-based 1230 has now reached its fourth revision and it's looking good!

- Demo Maniac

Years in the making, Demo Maniac finally gets a release. Could this be your entry pass into the next big demo party?

Info Nexus $2 \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$
A brave challenger to the all-conquering Directory Opus, Info Nexus 2 now
comes with Data Nexus free.
DICE C
79
Programming: everyone's doing it! The former shareware C compiler DICE C has grown into a commercial package, but can it mix it with the big boys?

- Amiga M1438S Monitor .................... 83

Amiga Technologies have released their official multi-sync Amiga monitor, complete with stereo speakers. We put you in the picture.

- CD-ROM Round Up 85
CD-ROM Round Up is extended to three pages this month since you enjoyed last month's feature and cover CD so much.
- PD Scene 89
More demos, games and weird stuff from the wonderful world of the public domain.


## PD Utilities

All the best gems from the more serious side of the public domain are unearthed in PD Utilities.


# FinalCalc 

■ Price: $£ 99.99$ ■ Developer: Softwood ■ Supplier: Softwood (C) 01773836781

## Have SoftWood got another winner on their hands? Maybe but with a few reservations.

0e all know that the Amiga is one of the best computers for video and graphics work. Few other systems have so many different applications offering such flexibility and power for digital video work. Sadly, however, the Amiga has been seen by some as not being able to compete when it comes to the professional office market because of the lack of powerful sophisticated spreadsheets, databases and word processors. People wishing to use these type of applications tend to use PCs or Macs and once they've started using them for these purposes the danger is that the Amiga will be


A. FinalCalc can surround cells with horders, for on-screen table creation. It is, howeves difficicult to set hackground colours.
pushed aside completely.
In the last year or so though, a slow but steady stream of heavy weight business programs have been released: Digita's Wordworth and Softwood's Fina/Writer covering the WP market while HiSoft's Twist 2 covers the database flank. But what of spreadsheets? You could wave CU Amiga's ProCalc cover disk around, but by comparison to PC and Mac spreadsheets of late it looks a bit long in the tooth. Fina/Ca/c from Softwood has finally arrived though, with the promise of super league power;so it as good as we've been lead to believe?

## Messy

On loading the program, after
 installing it to hard drive, a fairly standard looking spreadsheet appears. Taking a quick look around the menus reveals a frightening number of choices and possible commands. After the simplified menus of FinalWriter this came as quite a shock! And the icon bar below the menus doesn't help much either.

Only the basic editing and text attributes are set from the tool bar, you won't find any of the icons or flexibility frequently found in other application tool bars or even spreadsheets: no insert date/time, common formu-

## lae, etc.

There's also no way to reposition it or tailor it. The user interface is certainly way behind other Amiga spreadsheets we've seen in terms of simplicity - definitely a missed opportunity!

Once you get past the initial shock of the basic front end and start exploring things improve considerably and there are even several touches that make the user interface better. But there are several features crying out for some of the user interface tricks found in SoftWood's latest version of Fina/Writer, but more of this in a minute.

## 3D Graphs

I started off this review talking about the Amiga's lead in graphics and 3D image markets, so it shouldn't really come as a surprise that FinalCa/c has comprehensive 3D graphics capabilities. What's surprising however is just how powerful these capabilities

$\triangle$ FinalCalc provides DTPWord processor style sheets, allowing commonly used text attributes to by stored for future use.

One of the first things you notice is that the Project menu doesn't have the usual Open, Close, Save affair under the first menu. Instead you have the option to open Projects, each project containing one or more sheets. Although individual sheets can be opened, in use I found its Projects approach of storing several related documents together under one name more sensible and easier to work with. This is obviously very usefu as it means related sheets can be kept together, stored as one file. For example, a project for household finance might contain
 are and how useful they
are in a business environment.
Looking at its features first, FinalCa/c draws its 3D graphs as true 3D objects. This means that whereas ProCalc simply showed a graph with a third dimension drawn for effect, FinalCalc creates a 3D world in which the graph exists, and in which you can move around to see the graph from different view points. The viewing angle can change in all three directions, and it's even possible to change the scale of each axis!

Perhaps the only thing missing from its 3D capabilities is the option to export the graph as 3D data so it could be rendered in LightWave or Imagine. Maybe I'm daydreaming. but I can't help thinking how impressive it would be to see a graph with texture mapped columns, and custom lighting effects - other presentations wouldn't stand a chance!

## Animation In Action!

Fina/Calc's animation feature is probably one of its most talked about features. As well as being able to move around a 3D graph the view changes can be recorded to Anim. As the data in the spreadsheet that the graph is drawn from changes so to does the graph - nothing new there. What is new is that the modifications to the graph over time can be recorded as an animation. You could, for instance, watch as a graph showed turnover and profit changes for a company happen during the course of a year, watching columns rise and fall. These changes can be combined with simultaneous viewing angle changes to add impact or aid visibility. If during the animation for example one column of a graph dropped behind another one the camera angle could change to swing above or around the graph to keep the column in sight - clever stuff!

The animation is stored as a series of sequentially numbered IFF files not a true anim file. Although the manual shows how one can be created using the PD program 'makeanim' given the otherwise powerful nature of the program surely it couldn't have been too much to include an option to have this done automatically?
 it possible to change the viewing angle in all three directions.


[^5]Two sheets one for regular bill calculations and one covering ion repayments. I was, however, surprised to find that Fina/Ca/c doesn't use the tab-access approach, pioneered by SoftWood in Fina/Writer, to make umping between sheets easy. Why not have a row of tabs
along the bottom of the screen for each sheet? Instead you need to go to a menu, click on View, and select the sheet required. to hum!

## Classic stuff

When it comes to producing spreadsheets the program supports a very strong collection of presentation aids, functions/formulae and sheet manipulation tools. When moving a cell or cells around using Paste the references in formulae can readjust for you automatically while a single cell can be copied to multiple cells. There's also options to hide, lock and protect cells. All classic spreadsheet stuff.

The layout tools provider are good. Cell widths and heights can be changed, as can the contents font, colour and attributes (bold, italic etc) however they aren't very intuitive, I'm still trying to find out how to do some basic things - setting a cell background colour for example. There's also a simple style facility that allows you to define a common format for a cells that you can then apply to other cells later on, cool! Along with

Edit: -iffexpession, value if expression true, value if expression f When entering functions FinalCalc automatically provides help showing the parameters and arguments of the function heing entered.
these, you can also add borders to cells. Fina/Calc also allows you to clean up the borders of cells and remove duplicated lines. Other programs duplicate border lines if you've got two cells next to each other, both with their own borders - giving thicker lines than wanted.

While entering the spreadsheet data there are several further tricks in the Fina/Calc magic hat. The first is infinite undo and redo, so you can undo every action ever made on a spreadsheet right back to when it was empty. The next trick and more useful for beginners is comprehensive on-line aids, every function/formulae is documented with both quick one line descriptions and more detailed information. Then there's debugging tools to help find problems, like the find bracket feature which finds the closing bracket for an open on in a cell -invaluable for complex cell compositions.

If you print spreadsheets out you'll love the program. There's 29 page on printing alone in the manual, amongst its many talents are auto scaling of the spreadsheet to fit it on a set number of pages, a huge variety of variables for headers and footers (different date formats, page numbers, total number of pages etc), and the option to map the programs screen bitmap fonts to outline fonts for maximum quality when printing. The program supports Postscript Type 1 and 3, Mac ATM and Softwoods own outline font formats. If you're looking for the best output for your spreadsheet data you won't find better.

There's more to this program than I could possible cover here, it's calculation facilities are very impressive. Not only is it fast, but it handles circular references for you automatically, it understands infinity references (think about trying explain what infinity is to a system that only understands solid, real, numbers, you could take forever!) and has the capability to work backwards through formulae so it can work out correct starting values given a desired result!

## Drawbacks

I liked Fina/Ca/c and found it had most of the features I wanted, but not all. Given that Fina/Ca/c is so late to the Amiga the chances are that most prospective spreadsheet users will already have one: Maxiplan, ProCalc or TurboCalc. So why doesn't FinalCalc support the last two file formats? I suspect the
market for this program will come from users of these existing spreadsheets upgrading, yet with the exception of Maxiplan Softwood have done little to help us do so! Yes, there's an option to read Lotus 1-2-3 files so we could save data out from ProCalc etc in Lotus format and then import back in but are we using an Amiga or a PC here?

Then there's the manual. As Amiga manuals go it looks amazing. Hard back, glossy cover, ring bound - it must cost Softwood a fortune per unit! But as the old expression goes, never judge a book by its cover. While the layout, English, and quality are great I found the content and structure lacking. There's no step by step tutorial, although there are Basic Operations chapters showing how to get going. There's no breakdown or listing of the complex menus of the program it really needs, and more serious the function lists aren't subdivided into type (maths, finance, system etc) but rather just alphabetical - if you don't know a function name you've had it!

Its user interface is also lacking and could have been much, much better and definitely lets the program down. It's still a good spreadsheet, fast and responsive with some genuinely innovative and useful features and is without doubt the best spreadsheet currently available for the Amiga.

But in the final conclusion an Amiga application that can't directly talk to other similar Amiga applications and a user interface not up to current standards (standards set ironically by SoftWood amongst others) can't and won't get CU Amiga award.
Andy Leaning

## FINAL CALC

A500 $\begin{aligned} & \text { system requirements: } \\ & \text { Workhench 2, 3Mh RAM }\end{aligned}$ Workhench 2, 3Mb RAM (recommended), hard drive.
ease of use....................80\% Complies with Amiga guidelines but doesn't compare to modern Aming appli-
cations like final Writec Werd Wortite cations fike final Writec, Word Worth etc. performance... . $.93 \%$ Fast, fully featured, excellent print options, amazing graphs, I could go on. value for money, …........ $87 \%$ This much application for this little

## OVERALL

A3000
The hest Ami
spreadsheet-
around, could be
hetter, though.

# Blizzard <br> 1230 <br> IV 

Price: $£ 179.95$ (plus RAM) ■ Developer: Phase 5 ■ Supplier: Gordon Harwoods © 01773836781


If this Blizzard card was a film character it would be James Bond. It's that smooth.

©hase 5 know a thing or two about accelerators, having been in the game for a long time. The famous Blizzard range has had various incarnations based around the 68020 and 68030 CPU. This is the fourth generation of the Blizzard 1230 and it's accordingly known as the Blizzard 1230 Mark IV.

## High quality

Based on a 50 MHz 68030 complete with memory management unit (MMU), this is as fast as it gets before you enter the territory of the expensive first generation 68040 accelerators that are now appearing. Blizzard products have always been high quality units often out-pacing the competition but at a higher price. But now the Mark IV has come significantly under the £200 barrier it's more attractive than ever.

## Cheaper RAM

A1200 trapdoor accelerators are not all made equal. The Blizzard Mark IV is exceptionally well constructed, sporting a single SIMM socket that allows even double sided 72 pins SIMMs to be used. Unlike the Mark III, the IV permits the use of cheaper 70 nS RAM. A jumper connection on
the board is used to select 60 or 70 nS RAM speed - a very welcome addition.

## Faster OS?

Interestingly, there's another jumper next to the RAM speed one. This selects the MAPROM function. With this jumper closed, the Amiga's ROM is copied into the 32 -bit Fast RAM on the Blizzard board, which accelerates the operating system functions. This feature could be activated using the CPU command supplied with Workbench but by using the jumper switch you can enable it permanently if the loss of 512 K of your Fast RAM isn't a problem.

Another new feature of the Mark IV is that if, while booting, the ' 2 ' key is held down, the unit will deactivate entirely. The extra memory, acceleration and even the SCSI adapter if present, will all vanish. That's extremely handy for running games that might object to extra RAM or more commonly the accelerator.

## 32-bit DIMA

Like the Mark III, the IV has a 32-bit Direct Memory Access (DMA) expansion connector to allow a SCSI interface to be added. This would give a very fast SCSI inter-


face, leaving the PCMCIA slot free for other peripherals. The direct memory access would also require much less CPU time for data transfer than a PCMCIA SCSI interface. Interestingly, the add-on module also sports an extra SIMM socket which can accept up to 128 Mb SIMMs. It's an excellent idea but if SCSI is all that's required, the $£ 90$ expense for this feature is a little too hefty.

## To the test

If you're laying out $£ 180$ for an accelerator, you want to go faster. How well does it perform? Without printing reams of benchmarks, the results could be summed up by saying that; the Blizzard Mark IV is the fastest 68030 based accelerator that we have encountered. In particular the memory speed is spectacular, faster even than the Falcon 68040 accelerator, and only being beaten by the A4000 Cyberstorm units (also built by Phase 5).

## Acceleration

If you've never seen an accelerated Amiga, you're really missing something. Hard drives leap ahead speed wise. Time consuming tasks take only a fraction of the time. Real-time disk compression software can gain extra hard drive space without you even
noticing. With extra memory and speed, you can finally run severa applications simultaneously with little performance loss. Before too long you'll take this massive leap in productivity for granted.

We currently use a Blizzard Mark III here in the CU Amiga offices and it's given faultless performance to date. The Mark IV providing the same quality coupled with these extra features at a reduced cost can only be a good thing as far as we're concerned. The Blizzard 1230 Mk IV is definitely the top 68030 accelerator for your A1200. Mat Bettinson

## BIIZZARD 1230 MARK IV



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# DemoManiac 

## Price: $£ 12.99$ Developer: Black Legend ■ Supplier: Black Legend (c) 01438840003

## Black Legend's swirly twirly demo maker finally gets a full release. Like, wow man!

©- you ever get the urge to write your own demo, but don't have the programming knowledge to pull it off? DemoManiac aims to solve this problem by giving you a bunch of nifty graphics effects and a point-and-click interface to string them all together with your own soundtrack. Red Sector's Demo Maker and Peter van Campen's popular VideoTracker have already proven that demo construction kits like this can produce stunning results when a bit of style and originality is exercised. So, at just $£ 12.99$ DemoManiac looks like quite an attractive proposition.

## Stacked effects

Demos are created by selecting effects and wipes from a trio of menus. These can then have their parameters altered via slider bars, giving you plenty of options for customising the graphics. Some effects can only be used on their own, while others can be stacked up with more effects to display a maximum of six simultaneously.

These can be combined with wipe effects, such as fades and bounces. There are also a few options for mouse-controlled interaction.

Next the effects need to be put together in a sequence or script. Various commands are available to control the script that allow the creation of loops and basic program structures. Apart from the basic animation playing and picture viewing routines, there are some very nice graphics effects, including fire, wobbly sine patterns and some picture distortion routines. However, there's not enough choice for you to be able to put together a really individual demo.

Soundtracks can be loaded and played with graphics. However, Despite claims that DemoManiac is compatible with music created in all major music packages, OctaMED is not catered for. There are 14 variants of the tracker format supported but before you can load a module you need to select the correct player from the list. If you get it wrong, at best the music will be play incorrectly, at


This is the main screen used in the construction of a demo. Effects are chosen from the list at the hottom left of the screen, and then embellished with extras from the other menus to the right.

One of the hest effects is called Flames, which generates mooth plasma-style backdrop.
worst the computer will crash. Oh dear. When your demo

is finished you can save it out as an executable file that can be run independently of the DemoManiac program. As you work you can also save your creations as DemoManiac files.

## Call Rentokil

DemoManiac seems to be in an unfinished state, even though we first saw this program a year ago. The software refers to the program as 'Demo Mania' while the packaging likes to call it 'DemoManiac'. Curiously the contents page headline reads 'Demo Mania' with a Ionely letter ' $C$ ' sitting beneath the title on the next line down. It may seem that I'm being overly picky here, but this does seem to reflect the general state of the program.

Bugs are evident. They're not all major, such as the one that writes text outside of the confines of its box and all over the slider bar and surrounding screen. You'll also have to be prepared for a number of crashes for no apparent reason. If anything is going to make your Amiga crash, it's routines like these that hit the hardware with a bang. If you have an accelerator in your Amiga then things seem even more likely to crash.

## Conclusion

The editor has obviously had a fair bit of thought put into its design, but it's still not as intuitive and simple as it should be. There are too many stages in the construction of a demo, with data banks,

A Here there are three effects all up at once: a startield, a plasmaground and a vector object.
effects lists and scripts combining to confuse things. All of this could be replaced by a single list of effects and a timeline to sync them up to the music. The inconsistencies in the user interface als complicates matters.

DemoManiac can be used on any Amiga if enough memory is available' and AGA graphics are supported. Considering the low price and the impressive (if sma selection of effects on offer, DemoManiac would be worth checking out if you want to try your hand at a bit of demo creation. However, be prepared, the price does reflect the program's various shortcomings. Tony Horgan

## demomanac

A500
System
Any Amig
ease of use.....................78\% system is over complicated. performance.

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# Info Nexus 2 

## Price: £29.95 ■ Developer/Supplier: Optonica © 01455668282

> Info Nexus 2 steps forward as a contender to Directory Opus. CU Amiga Magazine wonders whether it might have been better where it was.

©file manager can turn any computer into a more productive machine. Acting on your file base with a graphic user interface is much quicker than the equivalent operations performed in the Shell or via Workbench. This is a fact highlighted by the enormous success of CU Amiga Magazine's Directory Opus 4 cover disk earlier this year.

It is against such stiff competition that Info Nexus 2 comes to the fray. Whether it is a worthy contender is an issue for debate.

## Pop and roll

Although based on the DOpus 4 style fixed twin list display, its custom GUI interface is horrible. It only became readable after I got rid of the text shadowing and altered the colour scheme.

Like its predecessor, Info Nexus 2 uses a strange Magic Menu-like system. Pressing the right mouse button anywhere will cause the screen brightness to fade down and a menu bar to appear in that location. Fortunately there's an option to lose the silly screen dimming but even still this system, described as 'Pop and Roll', is fairly useless as the menus have


A Using the same bizarre GUl interface as Infollexus, the hundled DataNexus could be useful.
limited selections anyway Info Nexus does not compare favourably to DOpus 4. There's a ridiculous lack of configuration options. The buttons are fixed and it's not even possible to create a drive button. Instead you have to click on a 'Drives' icon and then choose from a non resizable requester containing your entire selection of drives and assigns. Another another minus point is the fact that none of the file requesters are resizable - a nasty side effect of reinventing the GUI wheel.

## Limitations

File types are severely limited. The defaults are mostly based on matching post fixes of the filenames (.IFF, .TXT etc) rather than the binary data. There is, however, a couple of potentially innovative features, such as a preview thumbnail display of a directory full of images. This presents a screen full of boxes with tiny representations of all your pictures in it. Nice idea but it didn't work on anything but IFF files for me. When I tried it with JPEGs all I got was a load of garbage even with a working Datatype installed. Everything but IFF is handled by Datatypes which is a little pointless for a package professing to work under the Datatypeless OS 1.3. You'll only be able to view IFF pictures those machines.

There are a few positive points to InfoNexus 2. In 'Dynamic Typing' mode, small icons representing every defined file type are displayed to the left of the filenames. InfoNexus also has some neat functions for performing batch renames with specified pre/post-fixes. Most of the unique functions of InfoNexus 2 could be replicated

$\Delta$ At first look, Infollexus looks like any other file manager. However, it soon soon hecomes apparent how different it is; The 'pop and roll' menu can be seen here and the lack of user defined drive buttons.
with DOpus 4 and ARexx, but the inadequate ARexx port on InfoNexus 2 means that you couldn't replicate all of the unique features of DOpus 4. Some example ARexx scripts would have helped but there are none.

## Odd approach

Optonica's entire approach to implementing a file manager seems odd to me given a quote from their InfoNexus 2 addendum to the previous manual; "What about multiple windows and multiple threads? Whilst other file manager producers may feel that allowing the user to do many things at once with files is a good thing, in reality this is a prime example of superfluous glitz winning over intuitive program design." Do Optonica really hope to convince us that we don't need multitasking? If this is intuitive program design, I'll have a double helping of superfluous glitz please.

## Sweetner

As an extra, Optonica have included DataNexus with the package. This is a simple but functional 'flat file' database. If the bizarre GUI
isn't too much of a problem then it could be useful. Its ability to handle images, sounds and even CDXL animation is a definite plus but again Optonica state, "... you will not find the usual superfluous bells and whistles ..." They seem to be under the impression that the numerous things they haven't implemented (that are commonplace in other packages) are simply not needed. I strongly disagree. Steer clear and buy some shareware instead.

## Mat Bettinson

## INFO NEXUS 2

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## Dice 3

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AThe Vmake graphical front end makes managing larger projects a lot more fun. Even small projects (like this) are quickly manipulated.

## A shareware Compiler turns commercial. Is it setting a new standard for the Amiga or should Fourth Level throw again?

(1)t's always good to see a shareware program evolve into a commercial product. Although on one hand it can hurt the pock$e t$, it does mean that there is usually plenty of user support and printed manuals. It also means that there has been a long period of real-world testing. Couple these points with the fact that SAS/Lattice C compiler is no longer being developed and $D / C E$ looks set to become the new Amiga standard.

As with any $C$ compiler, you can't expect to take it out of the box and start writing astounding programs, straight away. If you have never used $C$ before you will need to read the manual from cover to cover before you start. The DICE manual won't teach C from beginner to advanced level, but it will help you a great deal by explaining the basics and recommending further reading. There is no doubt that you will need a good reference book and you will also need to obtain the official Amiga documentation (the 'RKMs').

However the effort is well worth it as $C$ is an amazing language. It manages to provide near Assembler-level control over hardware, whilst at the same time providing a modular approach which can be used for anything
from arcade games to professional databases. If you want to learn how to really program then $C$ is the way to go.

## Roll the DICE

From the outset DICE looks promising. The manual is thick, all the files you need to start up are included on the five floppy disks provided and it claims to work on an A500 with two floppy drives right up to an A4000 with hard disks. Sadly this turns out to be false, as the floppy only installation routine is broken in this release, so you will need a hard drive to use DICE.

Rather than containing only a compiler, $D / C E$ is a complete suite of programs. As your programming projects grow it becomes harder and harder to keep track of your code, and that's where the Vmake utility and Resource Control System (RCS) come in. Vmake provides a graphical 'front end' for the compiler: it's possible to compile and run without having to visit the Shell CLI at all, which is good news for those who are allergic to remembering long strings of options.

The RSC system keeps track of all the different files which make up your program and ensures that different versions don't get mixed up or lost. When you consider that

$\Delta$ With a choice of editor, from the simple DME shown here, to the MicroEmacs based AME, entering your source code is relatively straightforward. Other editors are supported by means of ARex and function key macros.
a large program can have twenty or thirty associated source code files, you can see why it is such a good idea.

As well as the requisite Linker and Assembler which all compilers need, other utilities are provided for searching through files, removing comments, updating time stamps and handling other mundane tasks. You even get a choice of editors: the simple DME or the MEmacs derivative AME.

## ARexx friendly

ARexx is fully supported by Vmake, which means you can customise your programming environment for any particularly tricky jobs you have. In fact, as the source code is provided for many of the utilities, you can actually re-write the entire system if you need to.

The manual gives some very useful example code for integrating an ARexx port into your own programs. In fact this is made a lot easier because one of the Amiga-specific features built into DICE is automatic ARexx support: a startlingly good idea.

Unfortunately all is not double sixes with DICE. I must have been spoilt by using SAS/C for so long, but $D / C E$ has a less than professional feel about it. There are little irritations (the documentation for some features, such as the Debugger, is on disk rather than printed in the manual) and there are larger ones (the code profiler doesn't seem to work, the automatic installation didn't work, the promised


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## Price: £299 ■ Developer: Microvitec ■ Supplier: Amiga Technologies © 01628770034

## At last the Amiga has an official multisync monitor. So just how good is it with productivity modes?

Amiga Technologies make no secret of the fact that their 1438S monitor is essentially the Microvitec 1438. This monitor that has already proved itself a popular and cost-effective monitor for the Amiga market and has been on sale through outlets such as Silica for some time now.

The M1438S is a multisync, so it can synchronise itself to display a variety of screen modes that use different scan rates. This
means it can display PAL ( 15 KHz ) screen modes as well as Double PAL/Productivity ( 31 KHz ) screen modes. Hence this one monitor is theoretically suitable for games and serious applications alike.

Normal PAL modes, which are used with the majority of games, can be used for serious applications but DBLPal/
Productivity is required for a high resolution picture if you want to avoid those dreaded flickery Interlace modes. In fact HiRES productivity modes in the 31 KHz band
can be used with the original Microvitec 1438 or many other VGA monitors too, using an Amiga 23 pin to PC 15 pin adapter.

## Dual-purpose

Since the M1438S displays both modes for only $50 \%$ more than the cost of a PAL only monitor (such as the Commodore 1084), it seems to represent good value for money. The only really new feature in the Amiga Technologies version, apart from a proper 23. pin RGB input, is the addition of stereo

speakers. Unfortunately, the sound quality from these speakers left a lot to be desired, especially where bass response is concerned. They were fine for some games and for the occasional warning beep but pretty useless for serious audio applications.

## PC modes?

The other area where the M1438S falls down is in the picture displayed in the 31 KHz modes. Large borders are present on either side of the active screen and with the omission of a horizontal size control, it's not possible to reduce them. The brightness and contrast is also too low for a good quality picture. On the other hand the M1438S displays VGA modes perfectly well from add-on graphics boards like my GVP Spectrum. This would seem to indicate that the monitor was designed for screen modes coming from a PC rather than an Amiga. If this weakness and the sound quality were addressed then the M1438S would be absolutely perfect. As it is, it's still good value, but if multiscan modes and sound quality are a priority, you should look elsewhere. Mat Bettinson

## M1438S MONITOR

A501
system requirements: 4Mb, Workbench 2 or higher, HD installable (51Ab).

4600
ease of use...................... $85 \%$ Automatically switches hetween PAL and Productivity mades. performance .................... 70 A Multisyne monitor but one that lack: screen size in high res modes. value for money ... .. $.85 \%$ Good for only $50 \%$ more than the cost of a PAL only moniter.
A2000 OVERALL

A3000
Good value hut sound and hi-res screen modes could be hetter.


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cheats. Keyboard required


SPECCY SENSATION 2


C64 SENSATION


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 FD-ROMS

Check out the latest Amiga CD-ROMs in our new expanded reviews section. Tony Horgan spins the discs.


## CD-ROM

 Round up
## The Colour Library Vol 1

If your appetite for all things pictorial is still unsatisfied, maybe The Colour Library is the disc for you. A rather nice picture viewer is included on the CD which lets you view all of the images without having to use something like ViewTek, which could have you sitting around waiting for directory lists on slower Amigas. This way there's no waiting - just click on the picture and up it comes. Image Desk, Image Studio and Fast View are

## also ineluded.

The images themselves vary greatly in terms of content and quality. It seems that a simple trawling technique was used to round up as many pictures as possible from the public domain. Quality control was apparently not a high priority. That's not to say that all of the images are ropey. There are lots of good images here but there's also a large contingent of fuzzy low resolution digitised stills. If you require a wide vari ety of illustrations for use in DTP applications then The Colour Library should serve you well, so long as you don't expect stacks of high quality high resolution scans.

Available from: PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex SS1 2YD. Tel: 01702 466933. Price: $£ 9.99$ plus 75p P+P.


## C64 Sensations



Unlike the highly popular Speccy Sensations CDs, C64 Sensations is not a collection of old C64 games. I was so looking forward to playing some of those old classics: Summer Games 2, Racing Destruction Set, International Soccer and hundreds of others, but I should have read the back of the CD first.

What we have is a compilation of music, demos and pictures from the C64. Some of the music is stored as SID files, and comes with the SIDPlayer utility to play them back on your Amiga. Due to an all too familiar mix-up, the installer is directed to non-existent directories, and so it doesn't work. However, much hunting around will reveal the required library sitting in a deeprooted directory somewhere on the CD. Copying this to the Libs partition on your hard drive gets it all up and running. Another selection of tunes are stored ready to play from the $C D$

Depending on your outlook, C64 music is either a: classic, b: an acquired taste or c: rubbish. If you're not sure what to expect, imagine the sound of a bee trapped inside a Bontempi organ.

Then there are the pictures. These are generally chunky loading screens taken from C64 games and do a good job of reminding us how nice high resolution Amiga graphics look. I'm not quite sure what the attraction is here because let's face it, they are stunningly unimpressive by today's standards.

Finally there are demos. These are included as a rather unfriendly batch of LHA archives. These need to be extracted and then loaded into the C64 emulator Frodo. Anyone expecting a C64 equivalent of the Speccy Sensations disc will be very disappointed.

Available from: Epic Marketing,
Victoria Centre, 138
Victoria Road, Swindon,
Wilts SN1 3BU. Price:
£19.99 plus $£ 1$ P+P.
40

## Aminet 8 <br> If by any travesty of

 justice you missed out on our CD issue last month, you will also have missed our free cover mounted version of an Aminet 7 CD. Those who didn't mis out will now be familiar with what has become the world's most comprehensive collection of Amiga PD es all have automated unarchiving, so that's no problem. music, comms, utilities, disk tools, graphics, pictures, music, essential purchase
## Available from: PD Soft, 1 Bryant

Avenue, Southend-on-Sea, Essex SS1 2YD. Tel: 01702466933 . Price: $£ 12.99$ plus 75p P+P.
demos, text and hardware projects, Aminet 8 focuses on music


## The Fifth Dimension

The Fifth Dimension is the fifth CD compilation from 17 Bit Software's extensive library of PD. All of the software is archived in DMS form, which means everything has to be expanded onto floppy disks before you can use it. This is the easiest way to transfer a disk-based library to $C D$ and is fine for demos that are designed to run straight from floppy, however it's not ideal for serious applications and utilities that
 would be better unpacked straight to a hard drive,

The selection of software on this disc is excellent, taking in the full range of Amiga PD, from games and demos to utilities and applications, along with all the other oddities that find their way into the public domain. Every disk is included from number 3352 (which just happens to be my own Some Justice 94 demo) to 3870 .


Fresh Fish $\mathbf{X}$
Fred Fish (real name) is the original Amiga PD compiler. He released his first 'Fish Disk' in 1985 and was one of the catalysts in the growth of the Amiga
 PD scene. Fresh Fish X is the tenth edition of the CD series, and contains disk numbers 1000 to 1100 in LHA archive form. All new additions to the Fish library since volume 9 are also included ready to run from the CD, plus a selection of other ready to run software filed in a drawer called 'useful'.

You won't find any Euro demos here - the emphasis is on the more serious side of things, although there are a few games. Like the Aminet CDs, most of the new files are split into categories such as business, comms, music, pictures, graphics, utilities and so on. While it doesn't seem to be quite as comprehensive a collection as the Aminet discs, it's still packed with lots of useful tools and data.


Available from: PD Soft, 1 Bryant Avenue, Southend -on-Sea, Essex SS1 2YD. Tel: 01702 466933. Price: £9.99 plus 75p P+P.
80

## The Global Amiga Experience


2.0, Scala 1.13, Vista Pro 1.0, Distant Suns 4.0, X-Copy and Clarissa 1.1.The Global Amiga Experience offers pretty good value for money. The main aim of the disc is to give you the chance to try out commercial applications in PD demo form, so even if none of the above programs tickle your fancy there are stacks of demos of others to mess around with. The categories include business software, comms, graphics music, development, learning science, text/DTP, utilities, tools, games and miscella neous. Although you'll encounter quite a bit of German in some of the programs most of them are in English. Well worth having.

Available from: PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex SS1 2YD. Tel: 01702 466933. Price: $£ 24.99$ plus 75 p $\mathbf{P}+\mathbf{P}$.

## Super Autos 94/95

Super Autos 94/95 contains 112 images, all of which are digitised photos taken from a car show. Each image is supplied as a GIF, HAM8 IFF, PICT and TIFF file. There's also a directory that contains files purporting to be IFFs but refused to load on any of our graphics software or viewer utilities. The pictures have been digitised at high

res interlaced resolution and are very
clean. If your 'PicturesOfCars' directory on your hard drive needs topping up, here's the solution.


Available from: PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex,
SS1 2YD. Tel: 01702 466933. Price: $£ 4.99$ plus 75p P+P.

AGA Experience


With AGA Experience SadENESS PD have put together a very accessibte compitation of fun PD. Although there are some utilities and toots, the emphasis is on demos, slideshows and games. Quite a few of the items can be run straight from the CD, although as is usually the case, this does cause occasional crashes when assigns haven't been set properly and so on. It's geared towards AGA Amigas and although you can access the files from any CD-equipped Amiga, most of the data is AGA-only.

The most impressive element of the disc is the vast number of top new demos, many of which can be run from the CD, although unfortunately they won't all quit back to your Workbench when they've finished. Games are also here in abundance and there's a selection of very high quality digitised images.

Far from a cheap shovelware compilation, The AGA Experience is one of the best ways of catching up on all the latest not so serious Amiga PD. This is well worth taking a look at if you want a good cross section of PD.

Available from: SadENESS,
13 Russel Terrace, Mundesley,
Norfolk NR11 8LJ. Tel: 01263722169.
Price: $£ 17.99$ incl $\mathbf{P}+\mathbf{P}$.
90

## Phase 1

Nothing to do with the 17 Bit Phase $X$ series of CD-ROMs, this Phase 1 is filled mainly with clip art, image and font files for use in DTP, graphics and video work The graphics are split into descriptive directories (cars, animals, fantasy etc.). Each category has its pictures compressed
 onto one or two screens of thumbnail previews, together with filenames for all the images, so locating the right picture is no trouble.

While some of the colour clip art is very familiar and has previously appeared on similar CDs, the general standard is very high. The clip art is divided into colour, mono
 and EPS formats, while the images are all present in 16, 256 and 4096 HAM colours. DTP artists will enjoy the large number of fonts available in Compugraphic, ProDraw, Type 1 and IFF formats.

A lucky bag of utilities are on hand to help you out of miscellaneous tight spots. Demo versions of Typesmith 2.5 and PageStream 2 are in attendance, along with update patches for PageStream 2 \& 3, OpalVision and Typesmith 2.5a. In all, a very competent clip art and font collection.

Available from: EM Computergraphic, 8 Edith Road, Clacton, Essex CO15 1JU. Tel: 01255431389 Price: $£ 24.99$ plus $£ 1$ P+P.

## Zero G Datafile 1

Zero G Datafile 1 is the CD-ROM version of the audio sample CD of the same name. You may remember it was this CD that had a big hand in starting the whole dance sample CD market a few years ago. We reviewed the original audio disc and rated it highly. This has all the samples from that disc in 16 bit WAV format, sampled at 44.1 kHz .

Strictly speaking this isn't an Amiga CD-ROM, but it can be used easily enough directly with OctaMED 6, or if you use another sequencer, the samples can be converted using one of a number of PD utilities.

While the audio sample CD market has exploded, slow progress is being made when it comes to CD-ROM equivalents which is surprising, considering the
advances in desktop music in recent years. So rather than getting the latest releases on CD-ROM, we have Datafile 1. While this was a great CD when it was released, it has since been sampled to death, and what were once fresh sounds are now old hat (a testament to its success at least 1).
If you are converting these samples to 8 bit IFFs, it's worth boosting the volume $50 \%$ or so before downgrading, as many of them are fairly quiet (which partly defeats the advantage of taking the samples from 16 bit originals). Even so,

it still beats most other music
CD-ROMs by a mile.
White this dise isn't such an attractive proposition, it's worth looking out for other CD-ROM (and audio) releases from Time and Space. Give them a call and they'll send you a free catalogue.

## Available from:

## Time and Space,

PO Box 306, Berkhamsted, Herts HP4 3EP.
Tel: 01442
870681.

Price: £19.95 plus 75p $\mathbf{P}+\mathbf{P}$.

## LSD 3

While some CDs are full of shaky files with bugged or non-existent installer utilities, LSD 3 is simultaneously one of the most useful and user-friendly discs around. It's been put together by the Amiga group LSD, the product of much data swopping and net surfing. The
emphasis is on the demo scene, although there are also a few utilities, clip art files and sound samples.

LSD have taken the trouble to make as many of the demos run straight from the CD wherever possible (rather than storing everything as an LHA archive which needs to be unpacked and then run). Considering the 650 Mb capacity of CD-ROM, this is something l'd like to see more of. There's also a good selection of animations and pictures which can be viewed straight from the AmigaGuide index. Music fans are well catered for too, with lots of Protracker and Screamtracker modules.

Not everything can be run straight from the CD. so in the Archived Files section you'll find another load of demos, animations, pictures, animations and samples. Games get a look in too with Assassins disks 211 to 250 along with a few others for good measure. If you like the fun side of Amiga PD. LSD 3 is definitely the one for you.

Available from: 17 Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield. Tel: 01924 366982. Price: £19.99 plus 75p P+P.




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 SLIDESHOWS

## GAMES

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CATALOGUE DISK VOL $2 . . \sum_{0} .50$ POSTAGE \& PACKING

## PD

Firm layers of beefy code, sprinkled with sound and music, graphics with a cheesy tang and games with a definitely fruity tomato flavour. This is the public domain.

# Scene 

## Coin Mania game

It's leaping action ahoy in this game where you've got to jump around the tiled area to collect coins within a set time limit. It's not all that simple though, as some of the tiles have a nasty habit of disappearing. You've got to be careful not to fall through gaps in the floor and plan your route carefully to avoid the obstacles and nasties which delay and try to kill you.

An enjoyable little game to play, but the difficulty level is set quite low so it doesn't really get the adrenaline going, mainly because it seems so slow. The two biggest criticisms I have are that there's
hardly any sound to spice things up and the graphics aren't as polished as they might be. Not top of the range but good for a few hours of fun.

Available from: AXLE
Productions, 2 Stile Road,
Headington, Oxford, OX3 8AQ. Price: $£ 5.00$ (UK), $\mathbf{£ 6 . 0 0}$ (Rest of the World) including P\&P.


## 10 Amiga Doom Clones AGA pack

It's no great secret that the one thing PCs can do which Amigas have trouble with is Doom. So for months now we've had attempts to replicate that game on our fave machine. This pack contains 10 disks, each of which houses a Doom clone or variant.

The first is Fears. There are three versions of this alone, all of which pretty much resemble each other, with improvements being made through the series. You can move freely around one or two levels, shooting oncoming foes and solving little puzzles

A more gory version is the Gloom preview; the whole thing is unnervingly bloody, with the sound effects to match. The last in this type of vein, pardon the pun, is Team 17's Alien Breed 3D demo which is absolutely superb.

On a different tack is Speed in which the object is to race around the Doom-like maze, crouching and jumping through and over obstacles to complete a race course in the least time possible. This isn't all that easy to play as you bounce off objects and you seem to wobble about a lot. But it's exhilarating fun! To pad out the pack are four disks showing how good certain Doom clone routines are. Interesting as they may be, they're not particularly entertaining.

This is a fair pack to obtain if you're into this kind of game, or you want to shut up some idiot who believes Microsoft can save the world. Others should look elsewhere.

Available from: SAdENESS PD, 13 Russell Terrace, Mundesley, Norfolk, NR11 8LJ. Tel: 01263722169.
Price: $£ 7.00$ including P\&P.


## Wooglies game

The objective here is to trap the wooglies in the squares which you can move around the screen. However, they move fairly quickly and can squeeze out of pretty tight spots, so you've got to box them in. The concept is simple enough, as all good games are, but in practice it's totally frustrating. You think you've one of the things trapped and it squeezes out! It's a really well put together production though, with some good music and graphics, and the gameplay is set at about the right level. Anyone can play this game and enjoy it or, indeed, get angry at it.

Available from: Freestyle PD, 108 Woodside Way, Short Heath,
Willenhall, West Midlands WV12 5NH. Phone: 01922 710985. Price: $£ 1.00$ plus 50p P\&P.


## Pixel Storm

AGA slideshow
Well-produced computer stills are pretty rare things. So, to find a collection such as this is a pleasant surprise. Everything on this disk is good. Most of the
pictures seem to come disk is good. Most of th
pictures seem to come from old Abyss demos and include such things as Michael Jackson, fantasy pig-humans, lizards, women and, most impressively, AI Bundy! Every single picture is simply brilliant and you'd be doing yourself a huge disservice if you miss this one out. Rush off your postal orders now to grab yourself a copy of this now.

Available from: Freestyle PD, 108 Woodside Way, Short Heath, Willenhall, West Midlands, WV12 5NH. Phone: 01922 710985. Price: 1.00 plus 50p PaP.

## Funhouse 3

## games

 make your escape.

Buying the average PD disk which is usually only $\mathbf{2 0 \%}$ full is a complete annoyance, which is why this disk is such good value because it's packed. There are three games on here, the first of which is Vectortraps. You must guide your bugbuster around a maze of circuits to set traps which kill off the virii that have infected your system. You can transport to other parts of the maze and the action gets really frantic at times, especially on AGA machines as AMOS speeds up! It's immense fun! The second game is Greeniz and here you have to shoot the bogeylike critters before they reach the left hand side of the screen. It's unplayable on AGA machines because it's way too fast but any ECS system should be fine.

Next up is Boing, in which you play the part of a bouncy thing which, you have to keep powering up otherwise it will lose its bounce! So, being careful not to lose your spring, you've got to collect the stars that litter each playing area and then

Finally, as a bonus, you get Cos, a funky little utility which makes pictures into strange and wonderful patterns; worth a look, if only for a bit of a giggle. A good disk; highly recommended.



## Aerial <br> AGA demo

A strange affair, this demo. It includes a Doom section, with a man/alien bounding around in a strange, psychedelic effect with the room spinning and blurring. More madness follows with 'bio plasma', where shapes appear suddenly and then disappear through clouds of colour. The nuttiness continues as a creature (?) holding a violin becomes covered with strange images whilst twisting and spinning in the air. The soundtrack is also bizarre and alternates between being awful and quite good.

## Available from: Freestyle PD, <br> 108 Woodside Way, Short Heath, Willenhall, West Midlands

WV12 5NH.
Tel: 01922710985.
Price: $£ \mathbf{£ 1 . 0 0}$ plus 50p PGP.


## Hilt

## game

All the usual RPG stuff is here including spells, weapons, monster slaying. Most of the game takes place inside a dungeon that contains $\mathbf{5 0}$ levels, so it's up to you, with your team of four characters, to explore all these levels, find treasure and slay any baddies that you come across. Sadly, Hilt doesn't quite reach the standards of other RPG PD games around. A poor effort.

Available from: Saddletramps PD, 1 Lower Mill Close, Goldthorpe,
Rotherham, South Yorkshire, S63 9BY. Tel: 01709888127 . Disk No: FDG005. Price: £2.95 including P\&P.


## Disk Magazines

Sauce 'N' Code\#2

|  |
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This disk contains anything any AMOS coder would want, including source, explanations and executables. Topics cov ered include sound (VU bars, specifically) word wrap routines, a font bank maker, ways to do rotating circles, fading pictures, plasma, and intuition and system operations. There are also a few AMOS extensions.

It's all presented in a disk magazine format, so you can view all the text required, read the accompanying instruc tions, then extract the actual code for implementation into your own AMOS pro ductions. Very well done.

Available from: Freestyle PD, 108 Woodside Way, Short Heath, Willenhall, West Midlands
WV12 5NH. Tel:
01922710985.

Price: $\mathbf{£ 1 . 0 0}$ plus
50p PGP.

## The Ultimate Manager game

If you don't already have a shelf full of football management games, you may like to try your hand at this. The PD version reviewed here allows you to play through two full seasons of Premier League and European action. The excitement of the matchday is represented by a list of fixtures and a speeded up clock, with the scores for teams updating as goals are scored. The game is text based with a few small graphic touches here and there to brighten things up. The registered version offers unlimited game time. One for management fanatics.

Available from: Network PD, 22 Walden Road, Sheffield S2 3PJ. Tel: 0114281 9103. Disk no. G499. Price: 75p plus 50p P+P.

## Out of Space \#1

Yet another
NFA produc-
tion, this is the
first in a series
of compilations
of articles all
concerned with
the supernatur-
al, aliens and all
that kind of spooky stuff. There's a huge
range of material, including some fascinat-
ing writing about alleged US government
cover-ups of UFO sightings, landings and
investigations, not to mention the inevitable
conspiracy theories which surround this
subject. If you're in any way inclined to find
out more about what may be going on 'out
there' then this is a great place to start.
Available from: Saddletramps PD,
1 Lower Mill Close, Goldthorpe,
Rotherham, South Yorkshire S63
9BY. Tel: 01709
888127. Disk No:
MC
Price: 95 .
including P\&P.

## Movie Zone \#2

 the next issue. All right then you're on It's a damn fine read actually. If you're a bit of a movie buff there's plenty to get your teeth into here including a profile Quentin Tarantinos' films, pictures from various productions (including a bunch from the ubiquitous Reservoir Dogs). movie news, quizzes, and opinion on the state of the business. There are also reviews of lots of flicks too. Unfortunately, some of these are a little dated now but that's the nature of these semi-periodic productions. The digitised pictures are also of fairly low quality, which is a shame but understandable.
If issue two is anything to judge by I hope to see more. There needs to be more substance put into it, but that will doubtless arrive as Phil receives more third party contributions - so get to it, people!

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THE ENTIRE F1 RANGE

Make your Amiga sound like Darth Vader, read up on the latest arms news or generally make your Amiga more efficient with this month's selection of chosen utilities from the Public Domain

## Vark CU Utilities \#9 Utility compilation

The latest edition of Vark is a good utility collection. First of all there's AlgoMusic, which creates amazing random music, an interesting sample compressor that sounds like Darth Vader, a brilliant Commodore Installer script generator and a neat public screen grabber. There's also some rubbish, like MemSucker, which is designed to temporarily disable a specified amount of RAM. It asks if you want to reset, but if you type No it resets anyway! Vark 9 is definitely worth tracking down for the better stuff, though.


Available from;
Roberta Smith DTP, 190 Falloden Way, Hampstead Garden Suburb, London NW1 6JE. Tel: 0181 4551626 Price: 90p + 50p P\&P.



## Multi Icons 2

## Replacement icon pack

Initially put off by the German installer and documents, I soon realised that Multi Icons isn't just another boring icon package. It has much the same sort of installer as Magic Workbench so it's easy enough to use though unfortunately it doesn't have a de-installer in case the icons aren't to your taste. This is not a real problem though, since it didn't install the icons over my old ones automatically.

After installation, the end result is something that looked impressive and quite different from your average Workbench or Magic Workbench set-up. If you're one of those people who likes strange icon packs for your Workbench or want your machine to look original, then I highly recommend this effort. There's no shortage of icons to pick from and they're both colourful and clear.

A full set of different picture drawers are provided so your hard drive's root directories can be picturesque as well as your applications drawers. There's replacement icons for all the standard Workbench programs including preferences etc. Oh yes, they seem to be designed for non interlaced screens too, which is good news for many. Maybe Amiga Technologies could include one of these packs with new Amigas in the future.

> Available from: Pixel Digital PD, Unit 6, Laurel Business Centre, 15 Laurel Road, Liverpool. Tel: 01512594017
> Price: $£ 1.00+50$ p PGP.


## AmmoGuide <br> Ammunition database



I just love Roberta Smith's disks with their nicely printed labels. Since I just happened to need to know the vital statistics of a German . $\mathbf{3 0}$ Luger bullet, AmmoGuide seemed set to make my life complete. Not. AmmoGuide will even do a surface 3D render of the desired small arms ammunition just so you know exactly what one tooks tike. Technical information is also available including the cartridge dimensions, grains of primer and muzzle velocity etc.

A fair range of guns is covered insuring that it makes a good ammunition reference. There's just one burning question that needs asking: what's the point in it all? It's not exactly essential bed-time reading now, is it.

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## Digital Utils <br> Utility compilation

Digital Utils is a collection of four utilities one of which. Magic Clock, is the mother of all clock utilities. It's totally configurable down to each hand and time format, and I like its standard analogue view. Disk Squeeze is a DMS clone that really uses a host of other utilities to generate a file image of a disk. It uses LZX for the compression which means it gets pretty good results but is a little complex for common use. Big Brother is a 'non-system' monitor (basically a hacker's monitor). It just crashed whenever I tried it. Lastly, Associate makes icons for any files. You just drop them on its dock icon and tell it whether the file is a sample, picture document or whatever and it'll fetch an icon and plug in the viewer/player into the tooltypes - potentially very useful. Overall a $\mathbf{5 0 \%}$ hit rate on this pack but the good stuff is worth it.


Available from: Pixel Digital PD, Unit 6, Laurel Business Centre, 15 Laurel Road, Liverpool. Tel: 01512594017 Price: $£ 1.00$ + 50p PaP.

## 79

## GFXLab-24 Image processor

This French image processor certainly isn't lacking in features. However what is missing includes an on screen preview and a resizable GUI. GFXLab-24's GUI is NTSC size and it won't change for anything. Not that it matters since the main view window is only a text $\log$ of each operation performed. On the right is a list view with a selection of processes. As usual it has a convolve function which thoughtfully comes with loads of matrixes but they must each be loaded by hand. Overall, the approach is like a hacker's image processor, with operations that are slower than Image Studio (ridiculously so at times). Its internal picture viewer is liable to crash but thankfully you can drop in a third party viewer. Image Studio is still a far better option, but this could be useful if you only occasionally use image processing tools

Available from: Pixel Digital PD, Unit 6 Laurel Business Centre, 15 Laurel Road, Liverpool. Tel: 01512594017 Price: $£ 1.00+50 \mathrm{p}$ P\&P.


## LazyBench 1.2 Application launcher

Lazybench is a simple launcher commodity. Once run, a user definable hot-key brings up a list of your favourite applications. A further click will run the selected application, upon which LazyBench automatically vanishes. All it needs is the paths saved to a configuration file which is edited with your choice of text editor. Small, simple and unobtrusive, it's definitely worthwhile if you have no applications launcher at all. This kind of utility is very useful for hard drive owners since actually finding the program you want to run, can take a while.

Here at CU Amiga, we use ToolsDaemon but that's a fair bit more complex and you may not like your Workbench menus cluttered with oodles of programs. Just dragging LazyBench into your WBStartup drawer is all that's required and it consumes practically no memory. You will need to know how to use a text editor though since it's a shame that new applications can't be added by dragging and dropping as with ToolsDaemon. If you've nothing like it, get it now.


## Available from: Exclusive PD, 7

 Beresford Close, Waterlooville, Hants PO7 5UN. Tel: 01705 642409 Price: $£ 1.00+75$ p P\&P.86

## RAF Fast Jets <br> Aircraft database

Taking a departure from utilities, RAF Fastjets is an encyclopaedia of various aircraft the RAF has used at some time. Much more than a simple collection of images, there's diagrams, technical specifications and the history of each particular machine. I found the disk quite informative and entertaining having a passing interest in the subject myself. All the files are Powerpacked but luckily the tooltypes of the icons do point to the correct viewers/readers on the disk that understand the format. The collection conveys the author's enthusiasm for the topic and it's easy to access it all from floppy. HD installation however, would be a pain due to the icon tooltypes etc. You could, of course, use your own tools to view the information on the disk. Previously from the CLR licenseware range, this disk and a collection of other aircraft database disks are now available as shareware from SeaSoft. Definitely worth a look if the topic is of interest.


Available from: SeaSoft Computing Unit 3, Martello Enterprise Centre, Courtwick Lane, Littlehampton, West Sussex BN17 7PA. Tel: 01903850378 Price: £1.00 + 50p P\&p.
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## FAO 121

Creating animations and the problems you encounter are covered for you in this month's common question and answer session.
O\&A MASTERCLASS 122
What are datatypes? They appear every now and then on cover disks and BBSs. What can you use them for? Find out in Masterclass.

## $1=0+A 124$

Tony and Mat sit down, once again, to put their thinking caps on as they peruse mis monthis stection of reader's questions

## BACKCHAT 126

Heated debate and differing opinions are bandied about in the pages which are dedicated to your points of view.

## POINTS OF VIEW 130

Windows '95: good for the Amiga? We jest? No. Andy Leaning technical editor of PC Review explains why he thinks the Amiga will benefit from the hype around Windows ' 95.


Bathroom tiles and Christmas cards star in our final Image $F X$ tutorial. And as we say goodbye to Image FX we say hello to the first tutorial on AudioMaster IV, our November cover disk. Then it's on to embroidery and compliment slips with PageStream and DPaintV. Finally as well as the usual helping of questions and readers letters there's the revelation that Windows'95 is good for the Amiga. Well, Andy Leaning thinks so ...


# 3D Rendering software 

## Amiga 3D rendering software can produce incredibly lifelike images and animations. Which package is right for you? Take your pick from the main contenders.

(3)D graphics is one area of the Amiga scene that's really kicking off at the moment. All of the major 3D rendering packages are constantly being upgraded in the race to become the Amiga's top 3D graphics system. While this fierce competition means plenty of hard work for the software developers, it's good news for the rest of us who reap the benefits of the ever more powerful software.

Why would you want to use a 3D rendering package? Apart from the obvious fun element, there are plenty of useful and lucrative uses for the software on these pages. At the lucrative end, there's pots of cash to be made from creating
animations and sequences for TV programmes and adverts. All the big action movies make extensive use of LightWave and similar systems. CD-ROM games are also plastered with 3D animations and you can always generate sequences and images to spruce up your own computer and video productions. If you want a job in movie special effects, you could do a lot worse than send Steven Spielberg a video CV . Get the idea?

## The basics

All of these packages work along similar lines. Objects are created in a 3D environment or with a combination of side, plan and front views and initially viewed as
wire frame constructions. At this stage the objects have no surface colour information, so they need to be coloured, or for maximum realism, covered with 'texture maps' which are image files that are wrapped onto the surface of the objects. Once a few light sources have been placed around the scene it's ready to render into full colour 3D. This is sometimes called ray tracing, as rays from the light sources are bounced off the surfaces of the objects and traced around the entire scene to produce realistic highlights, shading and reflections.

Animations are created in the same fashion, but movement paths are defined before the rendering begins. Rendering even the
simplest scenes can take a while, so small test renders are commonly used to check that everything is in place before the real rendering begins.

## Requirements

A hard drive is essential, along with plenty of RAM. 'Plenty' can be anything from 2 Mb to 100 Mb or more, depending on the scale of your projects and the software you use. An AGA Amiga is preferable for decent results. Perhaps surprisingly, 256 colour AGA screens are often sharper and more defined than 4096 colour HAM-6 screens (the best output offered by non-AGA Amigas). AGA's HAM-8 mode is the best of the lot and can be indistinguishable from full 24 -bit colour.

We've compiled this guide to the prominent Amiga 3D rendering packages to help you decide which is best for you. Take your pick

## Cinema 402.1

Supplier: HiSoft
Tel: 01525718181
Price: $£ 199.95$
Cinema 4D is causing quite a buzz at the moment. Reviewed in the November 1995 issue of CU Amiga Magazine, this German developed ray tracer has just received its first translation to English, giving the rest of the world the chance to enjoy the Amiga's most intuitive 3D graphics system.

Cinema 4D manages to offer a wide range of advanced modelling and rendering features without demanding too much from your Amiga. It's possible to use the system in as little as 2 Mb of RAM, although serious projects will require more memory. This is partly due to its modular approach and the way it uses separate interlocking programs for various different tasks. Many of its competitors call for four or five times the amount of RAM just to get started! Everything about the system has been designed for quick and easy use, to the degree that simple scenes can be created before you've even looked at the manual. Although it may not have all the advanced features of some of its rivals, Cinema $4 D$ is still powerful enough to create some excellent scenes and animations. For anyone new to the world of 3D rendering, Cinema 4D is an ideal entry point and should also be considered by more seasoned artists.


## Imagine 3

## Supplier: Emerald Creative

## Tel: 01817158866

Price: $£ 99.95$

A firm favourite among many long-serving Amiga users, Imagine is regarded by many as the best all-rounder, taking into account system requirements, features, speed and results. Its main failing is in its user-friendliness, which doesn't score too highly.
However, once you get used to its workings, it can be the
 fastest way to generate stunning 3D pictures and movies.

Animation is one area in which /magine shines particularly brightly. Features such as morphing and tweening take a lot of the hard work out of setting up movement paths, while the Bones feature allows objects to be joined together and moved as they would in real life. If value for money is a priority, Imagine should rank highly on your shopping list, as it offers a heck of a lot for just $£ 99.95$ which is a bit of a bargain in the 3D rendering market.

## LightWave 4

## Supplier: Premier Vision

Tel: 01717217050
Price: $£ 816.13$
The cinematographer's choice: LightWave could be held responsible for getting Amigas installed in countless TV, video and film production studios, particularly in the USA. Its creators NewTek, who should be thanked for turning the world onto the Amiga 1000 its early days, used to sell LightWave with their Amiga-based VideoToaster (an NTSC-only video effects system). LightWave was later released as standalone software for all Amigas and has now just reached version 3.5 .

While it requires a big Amiga to run (stacks of memory and hard drive space) it really does the business. No doubt you've heard of the many big-buck productions that have used LightWave: Babylon 5 , SeaQuest DSV, Michael Jackson's videos and more. Its animation and modelling features are second to none, and if you have an Amiga that's big enough and fast enough to do it justice, you won't want to use anything else.


## Real 30.0

Supplier: Activa International
Tel: 01814025770
Price: $£ 399.95$
As the name suggests, realism is the key point here. Although it's not immediately obvious, Real 3D works in a slightly different way to most 3D rendering software. Real 3D objects are 'solid' models, rather than empty shells made from lots of flat surfaces. Real 3D can also render objects with curved edges (referred to as 'Bsplines'). Rival systems would have to use many smaller surfaces in conjunction with smoothing algorithms in order to simulate curves.

Bags of other tricks are employed to make Real 3D scenes and animations more realistic than the rest. For example, simulations of glass and other see-through materials are accurately created, while there's lots of help in generating living objects including a skeleton 'kinematics' system and shrink-wrap texturing for clothes and skin effects. Hardcore power users can even make use of the in-built programming language. Mainly due to the solid modelling techniques, rendering times can be long and for the same reason general operation speed is low. Wireframe screens can take quite a while to draw when working with complex objects. To use Real 3D practically you will need a fast Amiga. We recommend a 68040based Amiga or better. However, the resulting images and animations are often streets ahead of those of its rivals.


## Caligari 24/Broadcast

Supplier: Emerald Creative
Tel: 01817158866
Price: £89.95/£249.99

Caligari is available in two editions: 24 and Broadcast. Neither version offers full ray traced rendering, opting instead for 'scanline' rendering. The advantage of this is that rendering times are much shorter than with the other packages covered here. The other main selling point of Caligari is its user-friendly interface and fast 3D wireframe scene previews. Unfortunately the rest of the Amiga's system is temporarily disabled while running Caligari so you can't multi-task it with other programs.

Caligari Broadcast is the big brother of the pair, and offers extra animation tools and 24 -bit output (unlike Caligari 24 strangely). If rendering speed is your top priority, then Caligari is well worth a look.

## Innocent sample waveforms are totally destructed in

 the name of creative expressionism.(B)
end it, stretch it. shape it. There's no end to the amount of fiddling about you can do with
 a waveform in OctaMED. To let you try it out for yourself there's yet another sample on this month's cover disk - TimeForBed in directory CU_121:Samples so load it in. Even better, add it to your sample list first (see last month).

Click Edit Sample (top-right) to open this month's focus window, the sample editor. The black squiggle in the window is TimeForBed's 'waveform', the sample in picture form. The thrust of the sample editor is manipulating this waveform: move this bit to there, change the volume of that bit and so on. By the time you've finished the sample can be completely mangled! The white line along the waveform's centre marks zero volume; the further a particular point is from this line, the louder the point's volume.

The speech sample we'll be studying is a
 good example because you can see seven separate bits of speech (distinct squiggles). Try 'marking a range' over each of the bits, see box-out (marking ranges) for a guide, and play them by clicking play (bot-tom-left). Notice the marker moving across the range as it's played. See the pitch box near the bottomright? This is why the ranges sound a bit low: the playing pitch is set to $\mathrm{C}-2$. Set the correct pitch (C-3) by holding the left mouse button on the box containing $\mathrm{C}-2$ and pressing I (the C-3 key). Should be better now. Try setting other pitches too, I recommend G\#3 but put it back to C-3 when you're done.

Now it's time to thoroughly mess up the sample: we'll rearrange and remove waveform bits until we have 'goats for bed' instead. Firstly we'll take out the first waveform bit, 'time'. Its exact positions are 0 to 4829, so type these

## Range Start: $0 \quad$ Range End: 4829

numbers into range start and end (see the marking ranges boxout out). Play the range (play button) is it time? - then click erase (bot-tom-middle). Play the newly-edited sample using the keyboard. Next we'll remove 'for Lebanese', the middle two waveform bits. Roughly mark a range over them (by dragging), then referring to the same box-out, adjust the left side (range start) to 6751 and the right side to 18908. It'll take practice but you can always type in the positions if your mouse hand's a bit shaky! Once marked, play the range, click erase and play the new sample.

Now all you need to do is cut and paste 'goats' to the start. The range start is already at the start of 'goats', so adjust the right side of the range to the far right of the sample (range end should be 15109) and play the range as a check. Click cut (next to erase) to cut 'goats' to the copy buffer. Finally, set both range start and end to 0 using the box-out's ctrl-x technique and click on paste (bottom-right). Play the whole sample; hopefully it's turned into 'goats for bed'.

## Zooming in

The more-than-slightly astute among you may have noticed that, as a result of the last pasting, the waveform has been magnified. See the black scroll bar just below the waveform? That shows you which bit of the waveform is being displayed, roughly the left half. Drag the scroll bar (to the right initially) to move around the waveform, or use the left/right arrow keys. On the top row, the buffsize box shows the length (in bytes) of the entire sample, the display box the length of the bit currently displayed.

But how do you magnify and reduce the

display? Use zoom in and zoom out (bottom left). Notice the display box value halving with zoom in and doubling with zoom out. Another way of zooming in is by marking a range, then magnifying this range to fill the display by

## Marking Ranges

A range is an area of sample waveform highlighted in white. Only one range may be marked at once.

- Mark a range by dragging the mouse over the waveform while holding the left mouse button.
- To adjust the left side of the range (range start), hold the shift key while holding the left mouse button on anywhere to the left of the range. Then move the mouse. Similarly for the right side (range end).
- To mark more precisely, zoom in before marking. Alternatively, type exact positions into the range start/end boxes (top-right) - click inside the appropriate box, type a number, press Return. To quickly set a box to zero, press Ctrl-X instead of typing a number.

IScking show (bottom-left). Click play display beside zoom in) to play the current display. When you've finished, click Show All (underreath play display) to show the entire sample.

## Echoes of my mind

Ferhaps at this point you'd like to save the toctored sample. Use any save item in the proect menu, although raw's the most compact. AFF and MAUD are really for Aura 16 -bit samtes, and 'save sample as' saves as IFF 8SVX which also stores sample loop information (see ater) but we haven't set a loop, so
Special effects time! We'll make the 'bed' at te end of the sample echo away to nothing. First we have to add extra space after the 'bed' to accommodate the echoes. So extend the sample to, say, 40000 bytes by typing 40000 into buffsize (just like typing into Range etart/end - remember to press Return). Clear vill wipe the sample out, so click retain in the equester that appears. See the extra space? Next we mark a range over both the 'bed' and the space by typing in 11044 to 39999. Then open the echo window (effects menu). You'll see there are three settings to Set, athough we'll ignore volume decrease. Echo rate is the distance in bytes between each echo; change it from 400 to 4500 . Set number of echoes to 5 and finally click Do Echo. Some time later if you have a slow Amiga like mine, OctaMED's number crunching will be complete and you're free to play the newly-echoing instrument after closing the echo window.

Now, you'll notice that there's a bit of unused extra space at the end. Usually I'd advise selecting Edit Menu -> Remove Unused space, but this removes a little too much "extra Space" this time (i.e. the final echo!). So mark and erase the range 37605 to 39999 .
Working with special effects involves a lot of trial-and-error and luckily OctaMED provides a 'snapshot' feature to save you grief if those


Retain existing sample?

settings you thought were perfect turn out to ruin your creation. So before our next effect (change volume), click >buffer (bottom-midde). This copies the whole sample to the copy buffer for later retrieval.

Most effects, including change volume, affect the marked range rather than the whole sample. So to affect the entire sample, you have to mark a range over the entire sample (if you get me). There's a quick way to do this -

click range display (above >buffer) now. Next, open the Change Volume window (effects menu) and gaze at its myriad of features. The start and end sliders are the range start and end's percentage volume changes; for example, $50 \%$ and $200 \%$ would slide the range's volume up from half-volume to double-volume. However, we'll stick to the four easy presets underneath the Change Volume button.

Click the halve preset and play the newly-half-volumed sample. Click double to reverse the change, then click double again. Notice the ugly distortion? You can only change the volume so far before the maxi-
 mum limits are exceed-
 ed (although Don't Clip prevents this). Close the Change Volume window and recall the copy buffer by clicking sample<,
Ed Wiles

| Change Volune |  |  | 回吅 |
| :---: | :---: | :---: | :---: |
| Start End | I |  | $58 \%$ |
|  | I |  | $58 \%$ |
| CHANGE YOLUHE |  |  |  |
| Fade In Fade Qut |  | Halve | Rouble |
| Don't Slip |  |  | Exit |

## Do Anything Just For Effect? Take Your Pick

- CHANGE PITCH retunes the sample. For example, to play note G-2 when you press the C-2 key, set the source and destination notes to C-2 and G-2 respectively, then click Change Pitch. Raising the pitch shortens the sam-


## Effects

 ple and vice-versa.

- MIX mixes the current sample (source) with the copy buffer (destination). The sliders adjust the relative volumes.
- FILTER/BOOST reduces noise or brightens the range. Averaging controls the strength, Distance controls the number of bytes that will be averaged. Averaging controls the severity of the averaging.
CREATE NOISE adds hiss to the range, seemingly useless but use your imagination! - CREATE CHORD creates two to four-note chords out of the sample; just enter the notes and click Create Chord. Saves tracks when you're composing.


## Sample Some Of These Editing Tips

- Use monitor and digitize together with a sound sampler to do your sampling. Type the required sample size into buffsize first (maximum 131072 bytes), then click monitor to open a window that shows what's coming through your sampler. Adjust the input signal's volume level until there's no distortion, then close the window and click digitize to start sampling (interrupt with the right mouse button). The sampling rate is controlled by the pitch boxes.
- A 'sample loop' sustains instruments by constantly repeating a certain part of the sample. To set it, switch loop on (bottomleft); two 'loop pointers' appear at either end of the waveform, marking the repeated sample part. Adjust these pointers by dragging their small black triangles across the display, or by using the loop point gadgets. The $<>$ gadgets move one of the pointers left or right (select which one


## 

with the Start/End cycle gadget); $<0$ and $0>$ search for zero values which can be good loop points.

Alternatively, open the instrument parameters window (see last month) and type exact positions into the repeat and RepLen boxes. Repeat is the loop start position, RepLen the loop length (not the loop end!). Back in the sample editor, remember that zooming in allows really accurate pointer positioning. Any constantly repeating waveform shape in the sample is often a prime target for a loop - the AcGuitar sample on last month's cover disk is a good example.

- Switch FREEHAND on (bottom-left) then draw on the waveform with the mouse, just like DPaint. It's very exact, though, so you have to be highly zoomed in; the maximum display size is 628 bytes! Other range-affecting gadgets should be self-explaining. REVERSE is a great one for speech samples and uncovering dodgy hidden messages!
And in the Edit menu:
- INVERT turns the range upside-down. Find a use for it and I'll be gobsmacked. CHOP erases the whole sample except the ranged part (like Audiomaster's Keep).
- COPY TO SYNTH EDITOR copies
the first 128 ranged bytes to the synthetic sound editor, our tutorial subject in a few months' time.
- PLAY BUFFER CONTENTS and DISCARD COPY BUFFER act as a memory jogger and a memory saver (clever eh?).

Image
 switched on, draw the top and left sides of one square in black with a fairly thick pen size. Now draw the right and bottom sides in white, then fill the middle of the square with grey. Pick up the square as a brush, click the fill icon with the right button to enter the options and select Fill From Brush. Now you can click anywhere on the screen to fill it with tiles. Save this screen out to disk and quit DPaint.

From within Image FX, load your main picture into both the main and swop buffers and load the alpha channel using the Alpha button from the main control panel. Select a filled rectangle from the drawing tools, and double click it to access the options. Switch the Mode button to Rub Through Blend to $50 \%$ and Alpha to Use as Texture. Now drag a rectangle from the top left of the screen to the bottom right. The alpha channel will affect the main picture and turn it into a set of bathroom tiles.

$\Delta$ You don't have to smother your images in effects. Sometimes subtle treatment is all that's needed to get the message across.

## More than <br> your bikini ...

Why not use Image FX to further your enviro-political cause? This picture started life as a postcard from the tropics. It was then put through a solarise effect to give the sky and sea an unreal quality. Image FX offers a few colour changing options, all available from the Colour button. If none of them seem to fit the bill, try using the Custom selection for interesting results.

The shadow of the radiation symbol was initially drawn in DPaint (for the sake of speed as with the tiles in the previous example). This was then loaded
parts will make the main image lighter and the middle grey tones will leave the picture as it was. Bearing this in mind you can set about creating your alpha channel picture. For the tile effect used here set up a grid of around $16 \times 16$ pixel squares. With grid mode pix

Some people have mirrors on their hedroom ceilings, others have their portraits printed onto their hathroem tiles. On second thoughts, maybe I'll just stick to those tessellating flower patterns.

ave you ever wondered what your bathroom would look like with a picture printed on the wall tiles? No, neither had I until I came up with this effect. It's quite simple to create and the theory can be used to add other textures to any pictures you may have. It works along the lines of the Break the Sound Barrier picture we created
last month, using a grey pattern as an alpha channel.

The alpha channel is just a normal picture, created with DPaint. It could have been created with Image FX but DPaint is quicker for simple images like this. To keep things simple, you should set up a palette ranging from black through grey to white. The black parts will make the main image darker, the white


A This haunting image was very simple to create. The original image was a clese up of an eye taken with a camcorder and ProGrab 24 RT . This was then flipped horizontally and pasted hack heside the original.
into Image FX along with the postcard picture in the swop buffer. The symbol was cut out and pasted down onto the solarised postcard using a $40 \%$ Blend setting. Finally the text was added using the standard text tool.

## Merry <br> christmas

How about sending some personalised Christmas cards this year? If you've got a
camcorder and a video digitiser, or alternatively a scanner, you can take pride of place on all your friends' mantelpieces over the festive season by slapping your mugshot on all your cards!

The background was made with a combination of effects. First of all a small portion of a picture was cut out, then expanded far beyond its original size using the Smooth scaling mode. This avoids jagged pixelated edges by blurring the edges.

Parts of it were then warped with the Wave tool and various other tweaks were made. Finally it was twisted with the Twirl function.

Next up was the foreground mugshot. This was scanned from a colour transparency, cut out from the background and pasted onto the swirly red backdrop. with anti-alias turned on to smooth out the edges.

The wave effect was simply applied using the Wave option from the Effect menu. The text

Mieriry Christmas and a trippy new year!

had to be legible, so this was put on after the wave affect using the text tool.

## Experiment

To finish off with the greatest tutorial cliché of them all, experimentation is the key with Image FX. Some of the best results are often created by accident and curiosity. Use your imagination and dig deep into the menus, combine multiple effects and generally mess around. It's also fun to take inspiration from the media The chances are, anything you see on a poster, on TV or in a magazine can be recreated with Image FX and your Amiga. Send us your best work for inclusion in our Art Gallery section. Tony Horgan


That's your lot!
And so we find ourselves at the end of the Image FX tutorial series. I hope you've enjoyed our monthly jaunts into visual trickery as much as I have. See you around.

# Payestream 2.2 

## P A R T With compliments ... This month we expand your Pagestream stationery set with some compliment slips.

0ver the last few months I have had many people writing to me and asking how they can add new fonts to use with PageStream 2. Their question and many more will be answered in this month's tutorial showing you how to make a stationery set without really trying.

Last month we looked at several subjects, including creating pages for our stationery set as well as adding guides, those ever so useful non-printing lines which make the placing of elements on a page such a breeze.


A Divide an A4 page into three by making use of the Guides function in PageStream.

We are now going to take the publishing process a stage further by creating some of the textual elements for your compliment slips. The design of these should be very similar to the one used for the letterhead last month, with only slight changes being necessary so all the elements can fit onto a different shape page.

Most compliments slips are made by splitting an A4 sheet of paper into three horizontal strips (one for each slip). Before you go ahead and create the first compliment slip, you will need to make a note of the margin required at the bottom of the page. This margin is the one dictated to you by the printer (or printer driver) and the area on the page it can print to.
This amount will vary depending on what printer and printer driver you are using. If you can only print to within an inch of the bottom of your page, then the bottom margin on all the compliment slips should be at least one inch white if it is only half an inch you can use this amount as your minimum bottom margin

To begin the tutorial, start by loading or creating an A4 page. As with last month and in common with the government's wishes, I am going to continue to work in a metric unit called millimetres. For three compliment slips, the page has to be divided into three horizontal sections.
This can be achieved by placing a guide 99 mm down the page and another at 198 mm . This gives you a visual idea of how the page is to be divided. Zoom into the top half of the page by choosing 'Show Full Width' from the View menu. We can now work on the first compliment slip. Transfer that bottom margin to your first compliment slip by adding a guide above the first dividing line (one of two that divides the page into three). It's also a good idea to use more guides to mark out your top, left and right margins as well. For continuity with last month's letterhead, import the same picture for your compliment slip.


AThis is the PageStream requester for choosing the location of the fonts you want to add. Keep cicking on Divive until the disk containing your fonts appears in the listriew. If you are worting from a hard divive. the requester you get will robabily be different.

## Managing fonts <br> Now we can add some fonts. Place a disk

 containing your fonts in any disk drive. If you are working on a floppy disk based system, this would probably be an external disk drive so you can leave your program disk in DF0. However, the vest place for these fonts is in a drawer on your hard drive if you have one. The name of the disk I'm using for this tutorial is a highly original: 'MyFonts'.Click on the text tool and choose Fonts/Points from the Style menu. A panel will appear, at the bottom of which is a button called Font Manager. Click on it using the left mouse button. A new panel appears. Click on Add and a requester actually will show itself.

The type of requester will depend on your system. Running PageStream from the floppy

## Jargon Points

POINTS: Text and other publishing attributes are measured in a unit called points. These are very small (there are around 72 of them to an inch). TEXT OBJECT: A piece of text that can be stretched both horizontally and vertically.
TEXT COLUMN: Text that is placed in a frame. Frames can be linked and resized without distorting the text within them.
disks you'll probably get the PageStream requester. If an ASL. library is present in your Workbench Libs drawer (like it would be if you are using a hard drive), a normal Workbench requester will be used.

Concentrating on those with floppy disk drives, I will presume your PageStream disks are the same as mine. If so, the requester will have a button on it called Drive. Click on it and keep on clicking on it until you see the name of the disk containing your fonts in the Text gadget at the top of the panel. Your fonts should also appear in the listview under the disk name. You don't need to choose a file or a specific font to add - just tell PageStream the disk name or drawer (plus path) of where the fonts are and it will add

$\Delta$ Stamp the text tool down on the page and type out some text. This creates a tert object. Select the te. hy pressing Right Amiga-A and then choose Fonts/Points from the Stple menu. You are now free to set the attributes for your text.


A To create a custom drop shadow, duplicate the text object by pressing Shift Right Amiga-A and then give that text a different colour by selecting hoth a colour and style from the Ohject/Fili Style panel.
the fonts automatically. Providing that is, the fonts are the correct type like PostScript Type 1 for example. If you only want a single font to be added, you would need to place it in a drawer of its own and then choose that drawer.

Those looking at normal Amiga requesters should have no trouble finding their way to where they have stored their fonts they want to add. Click on OK when you have found your new fonts and then to save this configuration for ever and a day, click on the Save Default button on Font Manager's panel. Your fonts should now be ready to use.

## Text crazy

With your fonts in place, the next step is to cook up some text. To do this, click on the Text tool and then press Ctl-F or choose Fonts/Points from the Style menu. Choose the Font required, the Style and the point size and click OK. Stamp the Text tool down on the page and type out your text. For this exercise, the text should be limited to a few letters or at most a small number of words.

Once the text has been finished, choose the Pointer tool and then grab one of the handles on the text object. If you hold the left mouse button down and drag the pointer (using the mouse of course), you will notice that you can make the text bigger or smaller. Now size the text to suit your compliment slip.

## Playing in the shadows

In the example here, where I am placing the text over an image, a custom drop shadow is needed to separate the text from the picture. To do this, make sure the text object is still selected (a clue to this is that its handles will be visible) and choose the Object /Duplicate menu item or press Right Amiga-D. Click OK for one duplicate. Drag the duplicate away from the other text, choose the Text tool and click on the text. Press Right Amiga-A or choose Edit/Select All. With the text selected, choose Object/Fill Style and click on a colour for your text. This text should now be a different colour to the other text and can be placed over the top or behind the old text to create a shadow. Just make sure the picture is behind both pieces of text.
The last bit of text we are going to create is a text column. This is text that is contained in a frame or box. These boxes are called Text Columns in PageStream and are different to Text Objects which we have just flirted with a minute or so ago.
To make a text column, choose the Text Column tool and draw a box underneath the main text heading. Click on the text tool and stamp it down inside the text


A Use the Text Column tool to draw a hox for some text and then type in an address and phone number. The text here is Centre Justified which is set hy selecting the Format/Centre menn item while the tert


A Drag a net around all the objects to group them and use the Object Duplicate menu item to create two copies. These can then he moved into position en the other compliment slips.
box. Type out some text such as a name and address for your compliment slip. If the text is in the wrong font and/or the wrong size. select the text by pressing Right Amiga-A (the equivalent of choosing Edit/Select All) and then choose Fonts/ Points from the Style menu. You can now choose some new attributes for your text.

All that's needed now to finish the job is to group the objects, duplicate them twice and place one duplicate on each of the other two compliment slips.

As usual, there is never enough space to cover everything, but you can be sure we'll be back next month with part three and some more hints and tips on working with

## PageStream 2.

## Larry Hickmott.

## Mail Bag

Since the release of PageStream 2.2 on the October issue of CU Amiga, I have had quite a number of people writing to me asking for advice. Due to the fact I have so little time these days, I apologise for not having written back with detailed answers to these people but you can be sure that the subjects brought up in these letters will be addressed in CU Amiga's tutorials over the coming months.

## D <br>  <br> 品 int <br> V

## PART <br> Simulating embroidery and stone carving on your Amiga may seem far-fetched, but you can bring these ancient skills up to date with hardly a pricked finger or flattened thumb in sight ...

$\odot$he much anticipated awaited additions to Deluxe
Paint5 aren't as comprehensive as many people were expecting, however, they do expand the program's useful life and offer some nice neat touches to help improve any Amiga artist's techniques.

Over the next few issues we'll be brushing up on any new features which should speed up your artistic endeavours.

We'll kick off this series with a simple project which produces great results without having to expend too much effort.

## New textures

Texture, one of version five's new features, allows you to paint onto a screen which already has a pattern imposed on it. You can't see the pattern until you either paste down a brush, or apply colour with any of the painting tools but it affects everything you do. There are plenty of textures to load in and you can save ones you have created yourself.

The fabrics and canvas effects are the most useful for general purpose work, as they simulate real-life media.

The golden rule is to experiment with them all, judging for yourself which work for you. It was during just such a session that I found a neat way to mimic embroidery stitchwork. Follow this tutorial and you'll soon be a

$\Delta$ Here's where textures are loaded in DPaintV. Once loaded a texture remains active unless turned off, from the same menu. The blue rectangle on the left shows clearly the pattern underlying it. The expanded view of the flower shows how simple an oliject can he if it 's going to be painted down onto a texture. The effect, though clever, tends to rob an item of much of its detail - so wily draw it anyway?
dab hand with a needle and thread, on computer anyway.

## Embroidery

Here's how it is done
Use lo-res, 256 colour mode, and from the effects menu, select texture/load and load in canvassmall. Use the filled rectangle tool with a mid-range blue and draw out a rectangle. You will see the texture applied to the colour - a kind of rough weave.

Switch to the spare page (key j) and select a large font (anything


[^6]around 60 or 70 point) from the font
requester. Type in your text in a bright colour. Now clip out the text as a brush and outline it in red. To do this,


A The flower has heen added eight times; it's the same lrush, hut fiipped and rotated to make it appear different every time. The needle is a simple grey line and the thread a freehand yellow swirl.
select red as the drawing colour once you have the text as a brush and press the 'o' key twice. This will produce a nice edging effect on the letter ' $s$ ' and will make it look as if the words have been carefully hand-stitched. Cut out the text as a brush.

Go back to the main drawing screen (j again) and paint down your brush. The bright colour you chose will dim as it is painted, one of the effect's the minor drawbacks, but you should see it texturise and it will appear as if it has been sewn onto the blue

## backing. Note how the red edges

 give a nice finish to the effect.Often you find this kind of embroidered 'primer', as it was called, would also have delicate ornamentation; that's a doddle in DPaint. Move back to the spare page, clear it and draw a rough outline of a flower, five round yellow blobs for the petals, an orange blob for the centre and a thin green stem will do.

The reason for this carelessness is because once the flower has been cut as a brush and painted onto the fabric, the


AFor the final touch we'll do a spot of cross-stitching, which is simple to thanks to the power of DPaint's line function. One lrush, such as this ' $x$ ' c an he drawn automatically along a straight line as many times as you like.


A Believe it or not, this terrific carved marble effect was created using a paper texture and a variety of colours for the marhle.
texture degrades it and makes a nonsense of any fancy detail you might have used under normal circumstances. Once you have your flower, paste it down as many times as you like on the embroidery. Flip it occasionally with the $x$ and $y$ keys to give different looks to the same object.

The final touch roughens up the edges of the blue material, giving it a frayed and realistic look. You could achieve this effect manually with a freehand brush, but try the automatic way first if you want to save time and hassle: call up the line spacing requester (right click on the line tool), and click on N total, and type 20 in the total box. Using


A Here's two example of what you can do with text: drop shadow for the red text and a simple outline for the white.
the second smallest brush with the background colour chosen as paint colour, draw out a line along each edge. The brush will be painted just 20 times throughout the length of the line, giving the blue fabric a ragged appearance.

Finally, the white cross-stitching was added by drawing one $x$ shaped brush, and using the same line drawing technique, with N total equalling 20.

The sewing needle and thread is an optional extra, made up of a grey line for the steel and a freehand line for the thread.

## The Ins And Outs of Effects

The basis of any texture is a brush. You can load any item from the textures directory as a brush and examine it to see how it was constructed, and which colours were used to add light and dark areas to the image overlaid on it. If you're not happy with a particular texture, or want something more personalised you can create your own, save it as a brush and load it in via the normal texture/load option.

Another useful tip is to check out the inverse texture effect; this switches the image and background of a texture and in our example you can see how different your artwork can look. The textures with plenty of black in them are particularly striking, in effect doubling the number of 'looks' you can give an image.


A Double the fun: each texture can be inverted, making image effects even more interesting. Here two textures are inverted, showing the differeace imposed on the same image.

## Global issues

Our second tutorial takes us further into the workings of DPaint5, again using texture in a novel way and incorporating a really great piece of miniature animation. If you want, just follow the steps for the static image and leave the animation for another day; the picture itself is striking, though pretty easy to do and can work alone without the movement.

The effect resembles a marble plaque, lit from above. In the past, creating a surface such as stone required a lot of patience and some skill

However, DPaint simplifies this a great deal. To create the marble effect, load in paperrough as the texture, and with brown as the painting colour draw a rectangle on screen. Watch in amazement as the underlying texture creates a realistic marble effect. Forget rough paper this is realistic stone work.

The highlighted bevelled edges, which give the block substance, are done in the same way, but using light and dark greys and the freehand filled polygon tool. Use light greys for the top and right edges, darker ones fo
the bottom and left. The text has been anti-aliased (select High from the effects/anti-alias menu before typing) to smooth the jagged edges in this low resolution mode, and a drop shadow effect added by initially painting the red text down as black (Press F2 with black as the drawing colour) then painting down as its original colour (key F1), offsetting the two images slightly.

That's all there is to it for the main image. But if you feel confident enough, we can go much further


A To get our animated globe spinning, we have to use the wrap fill option, shown here, in the fill requester


A Just for interest, here are the $\mathbf{1 0}$ cells from the glohe animbrush in sequence, showing how DPaint has mapped each one in turn on successive circles in a new animation.



A The spinning globe animation has heen pasted down and these three frames show how the world down and these three frames show how the worid revives in the maruie setuag. Note the black drop shadow under the glohe, added to the original mable image, then copied to the $\mathbf{1 0}$ frames using the animation/copy/all frames command.

The globe at bottom right of the picture in the bottom righthand corner actually revolves, showing the continents spinning realistically. Here's how to achieve this superb effect which can be used in many ways to suit your needs.

## All the world

The map image was really handy. it's one supplied with DPaint! Having saved your plaque, load in the map from the DPaintV/ Pictures directory. It fills almost the whole of a PAL screen, but don't worry, size is irrelevant here (ho, ho).

We need to animate the image now, but not in the normal, boring way; we're going to use DPaintV's special camera move option. This is a useful addition to the normal animation techniques, but doesn't replace them Go to the spare page (key j) and make sure it's clear. Call up the camera move option from the animation
the image to fit the shape being filled; in our case this is the circle, and by contorting the flat map image projection in this way it will be re-instated to look like a 3D sphere.

## Anim painting

With the animbrush of the
scrolling map active, click on the fill tool and, holding the Alt key down, click inside the filled circle on frame 1; this will do two vital things: fill the circle with cell 1 of the animbrush, then move on to the next frames in turn and use subsequent cells to fill the circles on each frame throughout the animation. This is called anim painting, and saves a lot of time and effort.

Playing back the animation now reveals a fine spinning globe. Cut this out as an animbrush, save it, and re-load your original plaque image. You will have to adapt the globe palette to that of the plaque, so from the colour/brush menu select remap.

Create the core of the animation by creating a 10 frame sequence based on this single image.

To have DPaint automatically place the whirling globe on screen, position the animbrush globe where you want and right click the mouse button, then immediately click on undo

Call up the animation/move requester and clear all values we want the globe to stay exactly where we placed it. Ensure the
 screen and this is simply achieved. In the X distance box type in 320 (the width in pixels of the screen mode, incidentally). Click the wrap box to activate it with a tick - this will render the image as a continuous stream, joining the leading edge to the trailing edge as it's drawn. Select 10 as the number of frames, and click on new, and off DPaint goes, creating a 10 frame sequence of the scrolling map from the alternate page.

Cut out the sequence as a 15 cell animbrush (animation/animbrush/pickup) and save it. Clear the animation sequence (right click on the clear tool, and select all frames).

Using the filled circle tool, draw a blue circle in the middle of the frame 1 of the blank animation, around 4 cm in diameter. From the animation/frames menu, copy this frame to all frames.

Call up the fill requester (right click on the fill tool) and select wrap as the fill type. This tells DPaint to use the current brush as the fill object and to constrain
frame count says 10 , then click on draw.

The program cleverly paints down each animbrush cell of the spinning globe in sequence throughout the animation, so that when you play it back is revolves as before, only this time it's part of a much more sophisticated image.

The finishing touch, an illumbnated section, is done with a light-beam shaped filled white polygon painted on each frame with translucency set to $60 \%$. The lamp holder I leave to your own design, mine's simply a green rectangular reading room light held by brass brackets. Peter Lee


AThrowing a littel light on the subject ... the image has not been darkened; the light is created by pasting a white beam-shaped polygon onte each frame of the animation, with translucency set at $60 \%$.


## Net God speaks

Amiga 1200s have been on sale for a little while now, however, Amiga Technologies haven't seen fit to supply them with any form of comms software, not even Term. This makes me worry that a new wave of Amiga owners are starting to trickle In who won't see the value of having a modem. What with monitors, extra RAM and hard drives to consider, the modem won't seem like an essential purchase at all. So it's up to us to make sure that they know just how groovy that little box of flashing lights really is. We've got to stress how can they can surf the world's Amiga resources at will on the Internet and pick up lots of invaluable software for next to nothing. They need a friendly helping hand into the wired world. So when you meet a new Amiga owner, let your first statement be: "Have you got a modem yet?" Let's hope AT address this major shortcoming in the A1200 pack soon. Then again, you never know, maybe someone could program their own comms software from this month's Amiga E cover disk and that would solve all our worries.

Our undercover reporter on the 'Net is here with tales of a new comms book, Term update, BeBox's latest developments and ARexx stirrings in the Spot Fidonet.

## News

Connecting your Amiga book 'Connect your Amiga!' is an excellent comms book written by Dale Larson of former Commodore fame and the author of the Envoy networking software. Having been edited for UK relevant material, it's been released in the UK by Fourth Level Development for £11.99. Subjects covered included local networking to full Internet software usage and technicalities. Contact Fourth Level on 0117984 04455 for more information.

CU Amiga file echos After being bombarded by requests for more information from Amiga BBS SysOps around the UK, we've decided to implement two PD 'file-echos'. All the PD, except Licenseware, reviewed in CU Amiga Magazine will be 'hatched' into two Fidonet domain file-echos called 'CU-PD_UTILS' and 'CU-PD SCENE'. These will then be passed to London BBSes who are free to pass them on further afield. Most of the PD reviewed can then be obtained from special file areas set-up on participating BBSes. We'll list them each month if we can. Watch out for the Fidonet AMIGA_MAGS echo for details of the current BBSes involved.

## BeBox Invasion

Anyone browsing the
comp.sys.amiga.misc newsgroup or hanging out in the \#Amiga IRC channel, couldn't fail to notice talk of a new computer platform. The strangely named BeBox machine sports an amazing hardware spec ification at a low price which prompted many Amiga users to ask why Amiga Technologies couldn't emulate the formula. This speculation was later followed by rumours that Amiga Technologies
were 'talking' to Be Inc. about running AmigaOS on the hardware. Since the Amiga has the software base but the BeBox has the hardware we've been screaming for, it has inspired great hope that something will become of it. Interestingly, the boss of Be Inc. was heard to shout in a PowerPC newsgroup that the BeBox wasn't a Macintosh clone but rather an Amiga '96.

## Aminet flooded with

'Spot' scripts
One long time Fidonetter and Backyard BBS Sysop, Anthony Brice, has finally got himself Internet access. Discovering the \#Amiga channel 'Bot, Mama, he's seen fit to upload his entire collection of ARexx scripts for the 'Spot' Fidonet technology mail browser via Mama's helpful Aminet upload function. These scripts range in quality from
excellent to bizarre and can all be found in the Aminet comm/fido directory.

## Term 4.5 released

The famous long standing and much updated PD terminal software Term, has been updated again by the German author, Olaf Barthel. Featuring oodles of bugfixes and minor enhancements, some other areas have had a serious revamp such as the phonebook section of the package. Term 4.5 comes in several archives that reside in the comm/term directory of the Aminet including one optimised for the 68030 CPU . Term is a large package and really needs an A1200 minimum to run happily. All the file names start simply with 'term'. Internet users can also obtain Term 4.5 from the Darkside BBS on 01817719100 and Backyard on 0181 4242065.

## Mailing list mix-up

In the October Surf's Up page, we printed details of the CU Amiga mailing lists. Response has been positive with many readers subscribing, however, we printed the wrong name for one of the lists ('cu-list' instead of 'cu-amiga'). So here are the entire details again. To join the CU Amiga Magazine mailing lists, send an E-mail to emailur!@cu-amiga.demon.co.uk.
In the body of the message include either of the following lines;
SUBSCRIBE cu-announce <E-Mail address> or SUBSCRIBE cu-amiga <E-Mail address>
Note that the ' $<$ ' and the ' $>$ ' are not to be typed in. They are included to indicate that the E-Mail address is optional. If it is not included, the address of your current mail will be used to subscribe to the list. Again the first list, cu-announce, is a low noise one-way list which has such things as our new contents page periodically posted to it. The second list is a discussion list where readers can get involved directly and talk to the staff at CU Amiga Magazine. E-mails to go onto the 'cu-amiga' list should be send to cu-list@cu-amiga.demon.co.uk.


## P A R T There's lots of interesting oddities to be had from the internet. Here's a selection to choose from ...

## Alynx text only web browser

In Wired World part III, we looked at setting up the AMosaic graphical World Wide Web browser. One of the criticisms laid at the feet of the WWW is that downloading all the pictures can be a slow process. There is, however, a little known browser that solves this problem by ignoring the graphics altogether. Known as $A L y n x$, the Amiga version is a Unix port and runs entirely from the CLI with a text only output.

To get a copy of Alynx, drop into your local Aminet FTP mirror site like, 'sunsite.doc.ic.ac.uk' for example and once in the Aminet route directory, FTP 'comm/net/ ALynx.Iha'. Unfortunately there isn't a custom installer but thankfully it's
relatively easy to set up and comes with comprehensive documentation. Extract the archive to somewhere on your hard drive. A small DOS script to launch ALynx is now needed. Type the following into your text editor:

Setenv Cursestype screen SetENV HOME USR:Mat CD \{Path to ALynx\} Run <>NIL: ALynx

The first line tells $A$ Lynx that we want it to run on its own screen rather than in a Shell window. The second will need the 'Mat' replaced by your user name. Eg: If you are fred@bloggs.demon.co.uk then put USR:fred. The next line will need \{Path the ALynx\} replaced with the full path of where you extracted ALynx to on your hard drive. Eg:


A Not as pretty as AMosaic, ALpnx is, howevec, very fast indeed and may he just the shot fer hrowsing the WWW while keeping the phone bill down to a minimum.


Downloading large pictures tagged onto web pages like this can be an unnecessary hassle if all you want is some simple information.

HD1:Comms/ALynx. Save this script as AmiTCP:bin/ALynx and then enter 'Protect AmiTCP: Bin /ALynx flags rweds'.

The next order of business is the Alynx.cfg file. To set it up correctly, load ALynx.cfg into your text editor and read through the comprehensive commenting present in the file. Two lines need to be present (overwriting the examples);

MAILCOMMAND: SendMail -f \$USER < DOWNLOADDIR: \{Path to ALynx\}

Again \{Path to ALynx\}needs to be the full path to the location of Alynx on your hard drive.

Note that there is no space between the ' $:$ ' and the path. Also ' or "/" must be present as the last
character. Eg: 'DOWNLOADDIR: HD1: Comms/ALynx/'

With luck, you should just need to link up and enter 'ALynx' in the shell. ALynx should arrive on its own screen with green text on a black background. Type ' G ' for go to page and enter a WWW address. ALynx should oblige. If not, read the AmigaGuide documentation that comes with the package. ALynx handles the more complex functions such as forms with relative ease and isn't prone to crashing in the same way as AMosaic. Its non-reliance on MUI is also regarded as a positive point by many users. Lastly, the in-line data such as pictures and sound can be sent to applications to view and listen to the data. Given a bit of work with the ALynx.cfg file,


A AmiPhone's discrete GUI doesn't show off its impressive ability to function as an Internet telephone.

$\triangle$ Even though ACUSeeMe is receive only, it still allows dropping in to such interesting places such as this NASA computer room to see how suntity they are in the American space institution.
viewers could be made to open on the ALynx screen to provide pretty much the ideal turbo WWW browser

## AmiPhone = internet telephone

Also residing in the comm/net directory of the Aminet is a brand new program called AmiPhone. The full path is

## 'comm/net/AmiPhone

0.5B. Iha' and first of all you'll need to FTP this to get started.

AmiPhone is a program that simulates a telephone conversation over an Internet connection. The main advantage to this is that you can talk to any other AmiPhone user on the Internet for the cost of a local call to your Internet service provider. The disadvantage is that audio requires a constant relatively fast rate and that's difficult to achieve across the Internet. However, if you have some friends on the same provider, it may just be practical
and if not, it's entertaining at any rate. You need a standard parallel port sound sampler to be able to send but anyone can receive. The archive contains an installer, so it's best to extract the archive to a temporary location, run the installer and then delete the installer data. The Installer does all the work for you by inserting lines in a few of your AmiTCP config files. When it's finished, you'll need to re-start AmiTCP to get it working. You'll need the address of another AmiPhone user before starting.

Link up and enter 'AmiPhone in the Shell. Select TCP/Connect from the menu and enter the address of the other AmiPhone user. All being well, super compressed ADPCM audio should be transferred via the net and you should hear each other if you both have sound samplers. Because of the high CPU load needed for both the sound sampling and the extensive audio compression routines, AmiPhone works best on machines with faster CPUs.

An A1200 with fast RAM is about the minimum system requirement. Lowering the sample rate and using the 'push to talk' function will help lower its CPU needs and bandwidth usage. If someone calls your system, a requester will appears asking you if you want to connect etc. Wonderful stuff, have a go with a friend today.


Chess via Amislate can be played hy any two people connected to the Internet in the world. It doesn't improve Black's game though.

## SOCKETCONFIG Error

Last month's tutorial on the Internet Relay Chat or IRC helped many users get onto the \#Amiga channel. Most of which used the Aml RC client mainly due to one point unfortunately omitted from last months Wired World. The socket.library, required to enable the GrapeVine IRC client to function with AmiTCP, needs a tiny one line config file. This resides in ENV: and an example of which is: UID=200 GID=200 USER=mat DOMAIN=cu-
Amiga. demon.co.uk UMASK=0
Enter this line in your text editor making sure to change the user and domain values to your own. Then save as SOCKETCONFIG in the ENV: and ENVARC: assigns. Your socket.library should now function correctly and Grapevine should work as stated. Apologies for the oversight.

## ACUSeeMe internet videophone

Fancy a video phone on your Amiga? How about ACUSeeMe? Once again on the Aminet, its full path is comm/tcp/ acuseeme2 _02. Tha. It has a basic installer which just copies the relevant CPU version to its final resting place complete with a phone book of CUSeeMe sites known as reflectors. No extra configuration is required. CUSeeMe can receive video as well as audio but unfortunately this Amiga version doesn't support sending as yet.

However there are plenty of interesting sites in the phone book to look up. Everything from universities around the world to the control room at NASA. You can drop in and get an animation in a window complete with sound. The frames per second value is displayed as the video phone functions. It's very heavy on bandwidth so if your link is slow, it won't work well. It also needs to run on a Workbench with 256 colours. It also requires MUI to be installed before you can run it.

## AmiSlate remote paint package

Written by the same author as the new AmiPhone, AmiSlate is an absolutely wonderful concept. It allows collective co-operation in a simple paint package via two clients running on machines connected over the Internet. Once again on the Aminet, it can be found using the path:'comm/tcp/ AmiSlate 1.3.lha'.

Like AmiPhone, it has an excellent installer that not only copies the files to the final resting place but also does the hard work of making some changes in a few of


A Co-operative painting via Amislate. Good for a fool around but you can also use iff for serious applications as well.

AmiTCP's config files.
It's possible to use AmiSlate without connecting to another AmiSlate over the Internet so you can try this first. Open it as a window on the Workbench or a fresh screen, to get the available pallete and some painting tools. If you want to connect to another machine select the tcp/connect menu and enter the address of another machine with AmiSlate installed. That other machine will have a requester appear, announcing the AmiSlate call in much the same was as AmiPhone. Once connected, both users can paint on the same picture and type in small chat boxes at the bottom of the screen.

AmiSlate's comprehensive Arexx port is definitely its best feature. With this it's possible to design a multitude of toys, games and applications that two connected AmiSlates can engage in over the Internet.

A variety of example Arexx scripts are provided including Chess and TicTacToe. Armed with some knowledge of Arexx and a print out of the AmiSlate documentation, it would be possible to create your own scripts that could be run on both connected AmiSlates. Definitely worth having a look at. The uses need not only be novelty based but also serious applications. Here's hoping that plenty of excellent AmiSlate scripts appear on the Aminet before too long. Mat Bettinson

## Audio Maste iv

## P A R T <br> 1

 AudioMaster IV's excellent effectsand editing features come under the
spotlight this month, along with a look
at the sequencer mode.

©ast month we looked at the basic operating functions of AudioMaster IV our cover disk from the November issue. However, over the coming tutorials we'll be concentrating its more specialist editing options that make it stand out from the crowd. This month we'll concentrate on the the effects menu. To begin, load AudioMaster and then load in a sample. If you bought the CD edition of CU Amiga last month you'll find plenty to choose from in the samples directory.
Many of the following effects will be most evident when used on longer samples that contain a range of different frequencies, such as drum and rhythm loops.

## Tune waveform

Tune Waveform alters the default playback speed and pitch of the sample. When you save the sound as an IFF 8SVX sample (the Amiga's standard sample format) these settings are embedded into the file. The pitch can be defined in one of three ways: sample rate, period or note. The upsample button

compresses the sample so that it plays twice as fast and uses half the original amount of memory.

## Duration/pitch

This is the timestretch and pitch shift section which lets you change the pitch without altering the length of the sample or the length without the pitch. This is thanks to some clever maths that inserts or removes lots of tiny portions of the sample. It's especially useful if you have a melodic sample loop that needs to fit into a song that's tuned differently to the loop. You could first get the tuning to match with the previous menu option and then alter its length by entering its duration in seconds right down to seven

decimal places. Now that's precise! Taken to extremes it can also be used for special effects. Sample rate, pitch and duration can all be set independently, either from the sliders or the value boxes. Click the resample data button to go ahead with the change.

## Change volume

You can change the volume of either the whole sample or just a part of it. Select the required area as a range, and then adjust the start volume and end volume sliders. For a blanket volume change across the whole range, make sure that both sliders are set

identically. For a smooth fade set them at different levels. Click the 'ramp it' button when you're happy with the settings.

## Backwards

Either the range or the copy buffer can be reversed with the backwards option. Select either range or copy buffer to decide which.

## Echo

Echoes can be added to the ranged area with this option. There are three parameters that can be set: echo rate, decay rate and number of echoes. Echo rate governs the time delay between each echo - smaller values lead to more closely packed echoes. Decay rate refers to the speed at which the

echoes fade away, with lower values leading to longer decay times. Number of echoes lets you specify a maximum number of echoes. This is initially set to an infinite amount, although this is limited by the amount of 'workspace' you currently have.

## Mix/flange

The contents of the copy buffer can be mixed with the currently edited sample using this option. This is useful for combining instrument samples to make richer sounds. For example, a piano note could be mixed
with a synthesiser sound and saved out as a

single instrument. Rhythm loops can also be combined to save memory and to free up one of the audio channels. Try using the alter pitch functions to get two rhythm loops to exactly the same length and then combine the using the mix option.

The second part of this feature is the flange setting. This offsets the copy buffer from the sample being edited by the amount controlled by the slider. In other words, one sample is stretched or compressed as it is mixed. When the copy buffer and the sample in the edit window are identical, adjusting the flange setting and mixing the two leads to a phasing effect that's most notable on sounds with a lot of high frequency content. If you want the phase to move 'up' rather
than 'down', first reverse the sample, copy it, flange it and then reverse it back again.

## Digital filter

One of AudioMaster's most powerful features is its filtering section. It looks a bit confusing at first but it's quite simple to use once you understand the principals behind it The top 2 sliders are used to set a range of frequencies, specified in KHz . Logically enough the upper frequency cannot be set to a lesser value than the lower frequency.

Now onto those buttons.
Boost will boost the frequencies between the sliders. Cut will remove the frequencies between the sliders. Pass will allow only the frequencies between the sliders to pass through the filter, removing everything above and below the selected frequency range. The Filter Effect slider controls the amount of cut or boost applied by the filter. If for example you wanted to remove all of the bass frequencies from a sample, you would set the Lower Frequency to one and the upper frequency to 184 or thereabouts and then click on Cut. Experiment with some samples that contain a range of frequencies and you'll soon get the hang of it. Once you do you'll find it an incredibly useful tool for cleaning up and enhancing your samples.

## Realtime effects

AudioMaster can also be used as a realtime effects processor. You'll need a sampler cartridge to use these features.

## soop

The best way to make music with your AudioMaster samples is to load them into tracker or dedicated sequencing software, but AudioMaster also comes with its own sequencing functions which can be handy at times.

The sequencer controls are arranged in a cluster on the left of the control panel. You can also create sequences using the SEO menu options. The SEQ button switches sequence mode on and off. Sequences are created by setting up a series of loops within a single sample. These loops are then played back to form a longer piece of music. There's an example sequence file on the AudioMaster disk called


BackToBasics, which you'll find in
the Examples drawer. This one plays back at 10 KHz , so the sound quality isn't that hot but it's a good demonstration of the sequence functions.

To make your own, load in a fairly long sample (a rhythm loop or something similar will do) and click on the SEQ button. Move the loop markers by dragging their handles with the mouse. Drop them to form a loop somewhere between the peaks in the sample wave. Click on the Add button to add another loop. If you want this section to be played again straight away, leave the loop markers where they are and click the Add button once more. Continue this process until you want to add a different loop. You'll notice the number changing in the box on the far left. This is the number of the current loop, and can be changed by clicking the Up and Dn buttons. To hear the sequence at any time click the Sequence button.

Sections of the sequence can be deleted with the DEL button. There's also a feature
 that automatically fades out the last part of the sequence. Select Set Fade Start from the Seq menu and enter the number of the sequence position from which you want the fade out to start. When you play the sequence you'll notice the volume fades smoothly from this section to the end. The repeat button makes the sequence loop over until you press stop. Sequences can be saved out using the Save $>$ Waveform option from the Project menu. If you are still in sequence mode, the sample and sequence data will be saved out as one file.

as they work by altering the sound coming in through the cartridge then playing the results out through the audio ports. Try plugging in a microphone (via the microphone socket of a hi-fi and then into your sampler if necessary)

## 미 Real Time Flange,


or just use a normal cassette or $C D$ sound source.

The echo is self explanatory. There are two sliders that can be used to change the effect. Echo rate sets the time delay
between each echo, while Decay rate defines

the speed at which the echoes fade away. The two buttons lead to slightly different results. Echo will generate an almost endless string of echoes with the right settings, while Delay simple adds a single echo.

Flange puts a phasing effect on the incoming sound. Try playing percussion or drum tracks through it for interesting results. By altering the length and depth settings to maximum you can create a long smooth phase slide.

Finally there's pitchbend, which changes the pitch up or down according to the slider setting. Set this to minimum for deep booming sounds, or maximum for squeaky results.

## Tony Horgan

## Did You Miss Out?

AudioMaster IV was given away free with the November 199 issue of CU Amiga Magazine. If you missed out you may still be able to get hold of it from our back issues department. Call them on 01858468888 now, as stocks are limited.

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## Frequently <br> asked questions

## Lights, camera, action! Everything you needed to know about animation on the Amiga is here, frame by frame.


#### Abstract

Q. How do I prevent running out of memory when creating animations on my Amiga with Deluxe Paint?


A. First of all, keep the total number of colours in your animation to a minimum. If you can, keep to 16 or less. If you are dealing with images with lots of colours, ie ray traced or digitised, use HAM mode as dithering (using special pixel patterns to give the illusion of more colours) uses up memory.

Secondly, use the lowest resolution screen mode you can get away with. With HAM mode it is surprising how good low resolution PAL appears. If you are going to record your animation, use a video overscan mode. Interlaced modes record well to tape but doubles the amount of memory actually required.

Secondly, buy more memory. If you have an A1200, you should fill your trapdoor with as much RAM as possible: a total of 6 Mb is a minimum useful amount. Also, keep movement to a minimum. Remember that it is the difference between successive frames that will be stored: two identical frames one after the other will only need enough memory for the first frame, the second will be 'free'

Finally, if using a paint program for creating your animation, remember that the Amiga will also need to keep the paint program itself in memory

# Q. Can I render animations with Imagine or Real3D? 

A. Yes, both these programs and all other 3D rendering
packages allow animations to be made automatically. Once you build your objects you can control their movements in the 3D 'space' and decide how an imaginary camera can track their movements.

The rendering software will then either generate a series of still frames or create a single Anim file. Some software, like Read3D v3, will allow objects to 'collide' and can alter movements according to the laws of physics.

## E. How can I make an animation of digitised images?

A. Animations of 'real' video (people or television for example) is difficult, as a single frame of colour TV can consume about 1 Mb of memory. Only storing the differences between successive frames doesn't work very well with video either but that's not to say it isn't possible.

You will need extra hardware and the cheapest is probably the VideoMaster from HiSoft, (tel: 01525718 181, price: £69.95) which will grab low resolution monochrome video and sound simultaneously. The quality makes it strictly for fun but it's very impressive.

The ProGrab digitiser can grab frames quite quickly (especially the PCMCIA version) and like the VLAB Y/C system it will take several runs through a video tape to make sure all pictures have been digitised.

The best solution is undoubtedly the VLAB Motion card, which captures video and compresses it with JPEG compression in real time to store it on disk and play it back. This
card costs $£ 1,000$ and requires a very fast hard drive.

The MPEG format is designed for video playback and Amiga systems do exists. However, they are rare and encoding is expensive and slow.
Q. I want to play back and record a long animation onto video tape, how do I do it?
A. Physically connecting the Amiga to the video recorder depends on your hardware and the quality you require. An A1200 has a colour composite output which can be connected to the AUX Video In connector on a video recorder, or via a suitable lead, through the Scart input socket. Remember to switch your video to AUX IN rather than a TV station.

Some graphics cards (such as the Picasso fitted with Pablo card or the Power Computing Flicker Fixer) will also provide a high quality video signal.

Other models of Amiga may require an external modulator (the A500 or A2000 for example) or a genlock (which although primarily designed to mix Amiga graphics and 'live' video also provides a good video signal from the standard RGB monitor port).

Recording lengthy animations can be done in three ways:

1. Buy about 32 Mb of RAM and store the entire animation in memory (not always feasible, unfortunately given the price of memory).
2. Play back the animation in sections, pausing the video recorder between each. This technique will take practice and good timing.
3. Store the animation on hard drive and use a program like Viewtek to play it back in one go. For this to work, you may need to take all the individual frames which make up your animation and turn them into one big Anim file. The best software for this is The Art Department Professional,
which uses a utility called FRED to combine and edit all the frames. In this way you can easily create an animation many megabytes in size, even if you only have a little RAM.
Viewtek comes with a utility called MakeAnim7 which converts a standard Anim file (such as that created with AdPro/FRED) into a new Anim7 format. (Personal Paint also supports Anim7). Files stored in Anim7 mode play back a lot more smoothly from disk.
Q. I have lots of different animations and titles which I would like to combine with Amiga sound effects and music files. What software do I need?
A. You can make simple animations and sound productions using little more than ARexx (see last month's Amiga Masterclass for details) but dedicated software is required for the desired effects.

Software like MainActor is designed to playback animations and synchronise sound effects, but you can also achieve a lot with Multimedia Software such as CanDo or Scala. These systems require a little more work, but will definitely provide the best results

## Q. Will an FPU

 make any difference to animation speeds?A. No, a Floating Point Unit will make no difference to animation playback rates or even to a paint program like Deluxe Paint or Personal Paint. An FPU will, however, speed up any image rendering or image processing jobs by a considerable amount and unless you know for certain you won't need these applications you should buy an FPU at the same time you get an accelerator card. $\quad$ John Kennedy

# Masterclass 

## A new datatype pops up on a cover disk or BBS every few weeks. What the heck they are and what could mean for you? We reveal all.

©ver wondered what happens when an Amiga application doesn't know what to do? It doesn't just give up: it asks a datatype for help. Datatypes were one of the few obvious improvements which came along with Workbench 3 : you won't be able to use them on Workbench 2.04 or older systems and therefore you'll need to buy a Workbench 3.1 upgrade kit (try Blittersoft 01908261477 or Brian Fowler Computers 01392499 755) which consists of new Kickstart ROMS and system software.

## What are they?

The idea behind datatypes is to divorce application programs from data formats. Rather than have an application, a paint program for example, worry about all the
different file formats let it know about datatypes instead. The specific datatype knows how to decode an image in IFF, GIF or JPEG format - the application program only needs to know that it can ask the datatype to do the conversion on its behalf.

This technique works very well, especially as when a new file format comes along it is only a matter of writing a new datatype. If we happened to invented a new file format with built-in compression called PlopCrunch, then all we need to do is create a PlopCrunch datatype for all the existing programs which support datatypes so it can read the files.

Normally what happens is that the application program will first of all try to use the loading
routines which have been programmed into it: these will usually be faster and more flexible. If the application can't load the file in this way, it asks the system if a datatype is available. If so, the datatype loads the file and passes the data

$\Delta$ Figure $1: V T$ tries to load but can't.


A Figure 2: VT cannot load hecause it cannot read BMP files. This is easily corrected by adding a BMP datatype.

## Here's what some readers did with their WB



Since the last plea, several generous readers have sent their Workbench backdrop into the office. Examining other people's screen shots is a great way to get ideas to smarten up your own system: remember even with no additional software you can still use the Preferences tools to give your system a totally unique Workbench display.

The images this month are provided by Mick Pilgrim from Worksop (see left) and Wayne Oldham (see bottom right) from the Tony Hancock Appreciation Society (details of which can be obtained from 426 Romford Road, Forest Gate, London E7 8DF).

Mick's display uses a coloured backdrop picture (rather than a tiled pattern) in bold colours. He has used a very 1960's OCR-style font for the Icon names and a Menu utility for a 3D appear- ance.
Wayne has also used a single image for the backdrop (this time in more subtle colours) and pretty obviously he is a bit of a fan of Scala. Notice also the various utilities scattered around the display: a clock, calẻnder, trashcan program and very sensibly a virus checker.

If you want the world to see what your Workbench looks like, send a grab on disk to Workbench pieces of creativity c/o John Kennedy, CU Amiga Magazine, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU. Remember to include details of any special utilities you have running, as well as how many colours your display takes up.

to the application program.
You can see this happening below in a grab of the Viewtek (VT) image viewing program in action. I have used the excellent SnoopDos utility to see what is going on behind the scenes.

In figure 1 you can see the VT program load, look for some defaults (unsuccessfully) and then load the image file spheres.gif. The VT program already 'knows' how to load GIF files and doesn't need to use a Datatype.
In figure 2, the image is stored in BMP format - the BitMaP format which Windows uses. BMP is pretty sloppy in that it doesn't compress data, but if you deal with PCs you may come across it. VT loads the file a few times but clearly doesn't have a clue how to deal with a BMP file, so it uses the BMP datatype. The datatype opens and then it loads the BMP file on VT 's behalf.

Another program which makes extensive use of datatypes is Multiview: the viewing program which comes as standard with the system standard. Multiview doesn't know anything but

$\Delta$ Multiview lives on datatypes enabling it to load most image formats.
datatypes not to work on OS2 or 1.3 then I'm afraid you won't get much sympathy. If you had a PC you would be falling over yourself to cough up the money for Windows 95, so do yourself a favour and get OS3.1 as soon as you can.

## Installing datatypes

An 'out of the box' system includes only a few datatypes: text, AmigaGuide, sound
datatypes, which makes it extremely flexible. Not only will Multiview load and display any image you have a datatype for, but it will also load and play animations, sounds, text files and even AmigaGuide documents.
Multiview is a well kept secret and it pays to experiment with it, as it is a very powerful tool.

Besides simple viewing programs likes Viewtek, some art programs such as Personal Paint also support datatypes. Hopefully, with the Amiga's future looking bright thanks to Escom's marketing and pricing policies, more applications will be updated to make use of datatypes and other OS3 specific features. If you feel like complaining that it is unfair of


A Here Directory Opus lists all the datatypes which I have on my system, my favourite one being the CDXL datatype which I use to play hits from CDVV CD-ROMS. Check out helow for an example of this.
datatypes which have been installed on my system. One of my favourites is the CDXL datatype, which I can use to play snippits of video from old CDTV CD-ROMs. Now there was a file format which we should all have heard more about. John Kennedy

$\triangle$ An image from the Heroic Age of Spaceflight CDROM for the CDTV, loaded via

## Where can I get datatypes?

Where do all the datatypes come from? Most of them are written by Amiga users because they need them for a particular project: and then decide to make them public domain.

The best place to find them is on the Aminet, either a CD-ROM or the Internet site. Look in the Aminet/util/dtype directory for the latest list. Here is the current contents of the Aminet archive at the time of writing.
aiff_dtc. Iha ams. 1ha
AOM_Raw_dt40.2.1 ha binarydt_39.11.1ha BMPdt 404. Iha cdt. 1ha clidt. Iha DeBox_DT40.2.1ha dfadt-391. 1ha exeDr394.1ha FontDT-1.0.1ha FontDT-1.1.1 ha fpHSN_dt40.1. Tha fpVOC_dt 40.2.1ha fpWAV_dt 40.2.1ha GIFdatatype-39.1he icon_394.1ha infoDT39.1. Tha jfif_dtc.lha jfif_FIX. Iha JpegDataType.1ha

AIFF/AIFC datatype, v1.11
Sun audio (.au) and X-Bitmap datatypes.
Loads pics on American/World Vista Atlas Displays any binary file
Bmp picture datatype v40.4 for $>=$ OS 3.0 Highlights c/c++ keywords
V39.1 displays standard out of a cli-command Loads debox images from CDTV/CD32 titles Datatype for DFA
Executable datatype v39.4 for $>=$ OS3.0
Datatype for Amiga fonts
Datatype for Amiga fonts
A datatype for MaxonMagic's .HSN samples Simply the best VOC datatype around! Simply the best WAV datatype around! GIF datatype for OS 3.0 and up Icon datatype v39.4 for >= OS3.0 DataType for Amiga .info files New JFIF/JPEG datatype (OS 3.0+) Bugfix for JFIF/JPEG datatype (AGA)
A JPEG datatype, $3.0+$ and ' $020+$ required

There is a great spirit of healthy competition to create the fastest and best quality datatypes, especially for image formats and especially for JPEG and GIF types, so it pays to keep a lookout for more up-to-date versions.

You'll also be able to find datatypes on many Bulletin Boards, as well as magazine cover disks. At least now you know what they are actually for

MacSND-dtc-107.1h mandt_v39.4.1ha maudDTr1. Iha MREKO-1.0.1 ha MultiPrint. Iha PCX. datatype. Iha picat_42_1. Tha png_dt. 1ha PostScriptDT. Iha QRT_DT. lha REKOdt 392 .1ha smpDTr1.1ha SUNdt396. 1ha TargaDType. Tha textdtpatch. Iha tiff.dtype. 1ha TIFFDT. Iha TPD, 1ha tx16wDTr2. Iha WPGdtype. 1ha ZGIFDT39.16.1ha

Datatype subclass for Mac sound resource Unix manual page datatype v39.4 Sound datatype: MAUD IFF Format 32Bit/OS3 Datatypes for KlondikeAGA cardsets Datatype based printer driver V39.0beta PCX datatype V39.2 for Amiga OS 3.0 and C= Datatypes for Windows Icons, BMP, Mac PNG Datatype v1.0
PostScript Datatype V39.0
Datatype for PovRay dump format (QRT)
Datatype for REKO cardsets, needs WB 3.0
Sound datatype: Samplevision 32Bit/OS3.0
V 39.6 of datatype for Sun Raster images
Datatype for Targa or TGA images, V 39.2
Patches datatype to support searching
TIFF datatype. Convert 24 -bit images
V40.3 to read TIFF files
Tron's PCX DataType 39.7
Sound datatype: Yamaha TX16W 32Bit/OS3.0
Datatype for wpg images, V 39.0
The fastest gif.datatype there is

## Logos, meanings and mysteries:



CD32 queries ParNET and various other CD ROM-related problems.

All about upgrading RAM, operating systems and processors.

Plug-in hardware of any kind: scanners, disk drives etc.


Answers to queries on particular pieces of sgftware.


Music, sampling, MIDI and anything that makes a loud noise.


Miscellaneous
tools to keep your Amiga running smoothly.


Form-feeds, page-breaks, preferences and lots, lots more!


Monitors, TVs, modulators, screen-modes and all that stuff.


Pixels, sprites, animation, pictures. In one small word: graphics.


Spreadsheets,
databases,
organisers,
accounts ..


Everything you need answering about the internet


Not everything fits into a pigeonhole, but anything you like fits in here.


Got a problem? Our Amiga experts are on hand to resolve your Amiga queries. Address your technical queries to $\mathbf{Q}+\mathbf{A}$, CU Amiga Magazine, 30-32 Farringdon Lane, London, EC1R 3AU. Alternatively email us at $\mathbf{Q}+\mathbf{A} @ c u a m i g a . d e m o n . c o . u k$.


Technical editor Tony Horgan likes a hardware problem to chew on while he's creating choons.


Mat also likes to get stuck into your Amiga-related problems, when we can finally tear him away from the 'net that its.

## Thrash about



When I get a guru error due to program crashing and I reset the comput er (soft boot) the hard drive starts going absolutely nuts trying to boot up. While this is going on messages appear saying 'disk not validated' and 'ram:t not found', or it boots all the way through to Workbench and still continues to access. Even when I cold boot after switching off for 30 seconds the hard drive still constantly accesses. Sometimes the accessing stops of its own accord, and other times I need to prompt some disk access from the Workbench which then stops it.

## Ben Perry via E-Mail

 sbv4@aberystwyth.ac.ukThere's nothing wrong with your drive. This process is quite normal. If your machine was writing to the hard drive and an errant program caused your machine to crash, the disk structure is corrupted. The Amiga's filing system knows about this and will scan through the entire drive and should correct the corrupt structure. This is the constant disk activity you witnessed. Because your A miga is multitasking, it will still try to boot which causes the drive to thrash rather noisily.

The solution is to reboot with both mouse buttons held down. Select 'Boot with no startupsequence' in the early startup sequence screen. Then simply wait for the drive activity to finish (don't run any programs) and then reboot again. Fourth Level Developments' (tel: 0117985 4455) Ami-FileSafe file system doesn't suffer from this problem, so it may be a good idea to get hold of it if this is happening regularly. AFS will also speed up your drives.

## Music bugs?



I've just turned 18 and my friends bought me the September issue of CU Amiga as a birthday present. As I am a computer musician, I was delighted to notice that disk 115 included with the issue contained OctaMED 5.04.

I started to make a song with it. However, after using it for some hours I found many major bugs in it. The speed commands (Fxx) aren't working and the speed sliders don't have any effect (well, sometimes they do). Also the 9xx command (sample offset) makes the block scroll slower (it's like the Fxx command). The program has also gurued three times for no reason. And when I enter the 8ch mode, samples won't play any more, they just say tick, tick, tick (snap, crackle, pop).

Also the guide which was on the disk doesn't work. Some sections of it work perfectly but most of them don't. The article in the magazine didn't tell much either. Where can I get full documents from? And... where could I get a working copy of OctaMED 5.04 from? I am disappointed. The program has great potential. Is the CU Amiga version the only one with those serious bugs? I really wish you were able to help me.

Mikko Tuomela via E-Mail ravel@sci.fi

It's important to remember that all of OctaMED's commands are made up of two hexadecimal digits, although the first digit of most of them is zero. The sample offset command is 19 rather than 9.9 on its own will change the tempo in OctaMED but is used to change the sample offset in ProTracker. The OF command is used to change the tempo in

OctaMED and also to perform a few miscellaneous tricks, such as triggering notes a number of times on a single line or delaying notes slightly. It's also worth remembering that if you load a Soundtracker module into OctaMED, some of OctaMED's commands are temporarily changed for compatibility with Soundtracker commands.

As for the messed up 8 channel sound, we couldn't get our copy to do it, so we're stumped on that one. Our guess is that you are setting some of the options in the wrong order. OctaMED 6 is highly recommended, as it comes with a printed manual and loads of new features. It's available for $£ 36$ in the UK, $£ 39$ in the rest of the EC, and $£ 41$ in the rest of the world. Payment from overseas should be in the form of a banker's draught or Eurocheque, payable to 'RBF Software'.

Send your order to RBF Software, 169 Dale Valley Road, Southampton, SO1 6QX.

If you're still lost for a solution, you can email your problem to RBF software at rbfsoft@cix.compulink. co.uk.

## Bigger A500 HD



I have an ancient Amiga set-up that is great for my needs but needs a slight tuning for perfection. Any help with the following questions would be most useful; 1. I have an A500+ with an A590 20 Mb hard drive. I desperately need a larger hard drive. Is the best solution an external SCSI drive linked to the A590 or to dump the 20 Mb XT drive and fit a larger drive in the A590 case? 2. The existing drive in the A590 is very slow $(230 \mathrm{~K} / \mathrm{s})$. Is this the drive itself or the controller? If I add a 1 Gb drive, will I get $2 \mathrm{Mb} / \mathrm{s}$ transfer and 9 ms seek?
3. I find ImageFX (off your cover disk) a fantastic time saver when compiling Imagine renders into animations using the IMP processor. Unfortunately you have not done a tutorial on this powerful tool. Is there any way to find out the commands?
4. If you send me the Image $X X$ manual, I will write a tutorial for publication in your excellent magazine. How about it?
5. I am about to upgrade my processor to the MC68010. Will I have problems with software compatibility? Surely if programs work on the 68020 based Amigas the will work on a 68010?
6. I want to split the output from the RGB port between the modulator (for a composite out to a video deck) and an RGB monitor. If I split the output will I introduce noise to the final output? If so what would be the best way to reduce this noise?

## Simon Hortop,

County Durham.

1. Both these options are viable and we know both to have been successfully performed in the past. Which one is best depends on the size of the new drive. If you've bought a cheap 540 Mb SCSI drive, there would be little point in the expense of housing it externally just to keep the (slow) 20 Mb unit.
2. Unfortunately the A590 SCSI controller isn't very fast either.
However with a proper drive mechanism you should get about double that transfer rate. Seek rates will be identical.

Another factor is that the 68000 isn't capable of shifting the data at the highest rate modern drives can handle.
3. Check out this month's ImageFX tutorial which this month covers the IMP batch processor.
4. Nice try.
5. You'll have no problems. Any A1200 compatible material will run on the 68010 (so long as it doesn't need the AGA chipset). This will reduce your rendering times slightly, but perhaps one of the 68020 boards for the A500 might be a worthwhile investment, such as that offered by Power Computing (see their advert in this issue).
6. This isn't really possible on the A500. The problem is not noise but rather that video signals can't simply be 'split' into multiple outputs. They need to be 'buffered' with special circuitry, otherwise the brightness level will drop as it's shared between both devices. This is not acceptable for driving either an RGB monitor or a video recorder. You could connect
your monitor to the video output of the video recorder for one possible solution. Since you've shown a keen interest in expanding your A500 based system, we won't recommend outright that you upgrade to an A1200 (considering the spec of your A500 already) but unfortunately the A1200 and A600 are the only Amigas having both buffered RGB and composite outputs.

## Dodgy supply I have an A1200

 fitted with an 80 Mb hard drive that keeps resetting itself periodically for no apparent reason. This is very annoying, particularly if it happens to do it whilst writing something onto the hard drive. What do you think is wrong with it? Does it sound expensive?

## Mr I Williams, <br> Nottinghamshire.

This could be one of several faults but it's probably down to your power supply. Commodore provided a measly 25 watt unit in the last Amiga batch and these couldn't power their way out of a soggy paper bag. The solution is to purchase a more capable unit from one of our advertisers. Datel's Goliath at $£ 44.99$ is a healthy option. You can reach Datel on 01782744707. However, to find out if this is the problem, you might like to try and swop your power supply with that of an old A500 or even remove the hard drive for a time to see if that helps. If it does, the power supply is almost certainly to blame.

## A1200 Tower

 I would like some advice before I splurge out on some serious expansion. I have spent more than a reasonable amount of time drooling over the Ramiga $\mathbf{Z 5}$ Tower for
the A1200, with a view to purchasing a Picasso II board amongst other bits.

1. If I was to install a secondhand motherboard from a CD32 instead of my 1200s, would I gain/lose anything other than the AKIKO chip?
2. Could I Install a SCSI2 hard drive and a Blizzard 1260 accelerator with SCSI controller? 3. Does PageStream 3.1 have EPS support? If not it's emulator time!
3. ShapeShifter and Emplant: can
they be used together to capitalise on ShapeShifter's ability to read recent Mac ROM chips \& Emplant's ports for AppleTalk? 5. If used with a Picasso II board, would these emulators run the Mac version of Dark Forces?

## Unknown, <br> West Sussex

Fitting the Amiga in a Tower case is an excellent idea. A machine of A4000 spec could be created at much lower cost. However Ramiga have gone bust so their Z5 Tower is no longer an option. There are other developers reportedly working on their own and we at CU Amiga know there's a massive market so it's just a question of who comes out with the goods first.

1. Well, you could put a CD32 in a tower but you still wouldn't be able to connect a keyboard or any A1200 trapdoor expansion devices. The CD32 doesn't have those facilities. 2. If you fitted an A1200 motherboard to a tower, yes indeed you could. However, you would have to plug the Zorro slot break-out board into the trapdoor expansion slot in which case your trapdoor is used making it full so you couldn't use an accelerator.

Hopefully, some enterprising developer will create an A1200 Zorro break-out board with a passthrough for accelerators. If you mean with the CD32 motherboard, the answer is definitely no. 3. Yes it does.
4. You could use Emplant to capture the ROM images but the AppleTalk ports won't work with ShapeShifter. Of course if you had an Emplant board you have no need of ShapeShifter at all and can use its Mac emulation which supports AppleTalk. ShapeShifter does, however, support AppleTalk via any SANA-II driver which comes with any Ethernet Zorro card. Perhaps it'll work via the PLIP parallel SANA driver to another Macintosh emulator on another Amiga. Any readers who have tried this, please let us know.
5. Yes indeed you can. In fact we played this and other doom-a-like games on our A4000 running ShapeShifter - and they said the Amiga couldn't do such things!

## A right mix up <br> I use an A1200

 with an 80 Mb HD and 6 Mb of RAM. When I saw your October cover disk for desktop publishing I thought 'that is for me'. Desktop Dreams eh? Dream
on, your cover disks as a rule are very good but I think that this one got away. Having worked out a fly poster for an imaginary club, I went to print it.

Now correct me if I'm wrong but I thought that publishing programs were for printing. Not so this one. All I got from the printer was a load of garbage. No nice little sketches I had made, nor was there any of the headlines or text. NOTHING OF THE SORT. 'My God the printers given up on me' I thought. Out with Protext again. Everything worked A O.K. Conclusion, the fault must lie with Desktop Dreams.

## Unknown.

Oh dear. We think you might have a slight observational problem. The fact that you missed that the package is called PageStream 2.2 (written in a 97 point font at the top of the cover disk instructions) indicates you might also have missed the fact that you have to set up your printer in PageStream as indeed you have to do in any other DTP package on the planet. Protext has either got your printer driver set-up correctly or is using your Workbench preferences. We recommend that you purchase the manual from Soft-Logik or follow the tutorial closely.

## Wrong images Using your excellent / mage FX

 cover disk (CU Amiga June '95), when I go to save out a picture, I am offered a number of file formats. If I choose ILBM I usually end up with very large files. However, if I select JPEG the files are drastically reduced in size. If JPEG files are so much smaller, surely the other formats are useless? Help?Nick Speaker
Oxford.
The reason that the JPEG files are smaller is because the use a 'lossy' compression technique, so called because some of the definition is lost in the process, defined by the quality setting. ILBM files include all the original data for each pixel.

NO SAES PLEASE
We regret that we cannot respond to readers" queries by post or over the phone. Plesse
do not include stamped ddressed ervelopes with your
letters, as we simply don't. have time to answer the thousands we receive. Responses are only possible through the
pages of the magarine

# BackC hat 

Welcome to the pages of the magazine that are dedicated solely to your views and thoughts on all things Amiga. Want to join the party? Write to: Backchat, CU Amiga Magazine, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU.

## Letter of the month

More power to Escom, they have an impossible job ahead of them. They have to create an Amiga that will keep its head above water against increasingly powerful PCs.

However, the average Amiga user is part of the problem. Joe Amiga seems to be convinced that that it is possible to create an Amiga that blows away PCs, MACs and consoles, has endless memory and hard drive space, for about $\$ 500$. Please try to understand that 'killer' technology costs and having a top of the line computer means laying down some dinero.

When the Amiga 1000 was born, it was miles ahead of the competition, with its graphics, sound and price. Your A500 has been around for a decade now and it might be time to upgrade. Don't get me wrong my souped up $A 1200$ will still do things my Pentium won't and l'll take Workbench over Windows anyday but in many respects PCs have passed over the Amiga. What would you rather write a cool new game on? An Amiga, where the standard is still $1-2 \mathrm{Mb}$ of memory and no hard drive, or a PC, where the standard is at least $486 / 33$ with $4-8 \mathrm{Mb}$ of memory and at least a 300 Mb HDI I would be more than happy to spend $\$ 1500-\$ 2000+$ on a good, powered up Amiga but the existing market won't support it. If you love the Amiga, spend some money, for heaven's sake.

I'm not saying we should go overboard, but we're going to have to try harder if we expect the Amiga to, once again, surpass the clones. Either that, or it is time for the Amiga to redefine itself as a low-cost alternative to power computing - ie. the 'almost as good' computer.

You can't expect the current crowd of A500, A600 and A1200s to push those pixels fast enough. I realiy don't like to sound this bitter, I love the Amiga but it is quickly losing ground and we Amigans are to blame. Stop treating the Amiga like a toy and then whining when it doesn't put the other computers to shame.

Norman MacDonald, Spokane,
Washington USA

## Not just a games machine

I feel that people are unduly distressed about the contents and price of the new A1200 pack. Those who only want an Amiga to play games on are probably right in saying it is overpriced, but they must understand that the Amiga is a computer not just a games machine.

With the inclusion of programs such as Wordworth 4 and Photogenics, the $£ 400$ price tag is justified when you consider that you're getting hundreds of pounds worth of software as well as a top machine.

However, the general rule seems to be to compare the price of the Amiga with the price of the Saturn or the Playstation. This is completely absurd to compare games consoles with computers. I mean, when will you ever see LightWave or Image FX or the many other excellent programs on any of these 'next generation consoles'?!

Another bone of contention is the lack of games such as Ridge Racer on the Amiga but we already have Pole Position and Virtual Karting. When Doom came out nobody thought it could be done on the Amiga but look at Fears, Alien Breed and Gloom. Someone like Team 17 will bring out games like Ridge Racer and Virtua Fighting eventually. So what are you all moaning about?

## Name and address witheld

## Beginner's dilemma

In order to survive, the new Amiga A1200 must have top of the range software like Scala and Wordworth to help sell it. But what about new users? I remember when I first got my Amiga I didn't have a clue how to use it and, in all fairness, not even your magazine could help me. It's all very well having modern, complicated software but for the Amiga to succeed they need to put in some simple-to-use stuff too, to make new and unfamiliar users feel comfortable. No computer is very easy to use from scratch but the Amiga has this potential. Who really wants to wade through those manuals?

## Eamon Mac Anna, Belfast.

There is a certain element of truth in what you say, but there is also a limited amount that Amiga Technologies can supply with the Amiga. Simple software would quickly become useless because, as you said, the Amiga is easier to use than most so
you will soon get up to speed with something like Wordworth or Photogenics. As mentioned in the news pages of this magazine we've included a starters guide to the Amiga, which should help new users, but the best way to learn a system is to use it regularly and, boring though it may seem, read the manuals.

## Poor man's Doom

Thankfully, after the previous months of uncertainty the Amiga is still here ready and waiting to receive the supposed influx of 'great' titles queuing up to get a look in.

These titles include Gloom, Fears and Alien Breed 3D and have been heralded as ground breaking Doom beaters. Well ground breaking they might be, Doom beaters they certainly are not. I may just be nit picking but in these types of games a rocket should explode on impact, and the bad guys should have more life. Instead they hover about aimlessly until they are eliminated in a blaze of anticlimax in an unimpressive two frame animation, as is the case in Fears.

Alien Breed 3D, however, is a lot better than Fears, though. It has well animated and varying enemies, unfortunately the graphics are too blocky and the gameplay view is confined to that small window. I haven't played Gloom so I can't comment on that although it was reported to have no save option, forcing the player to finish the game in on session or start from scratch. This is ridiculous. I've played the Doom series and Dark Forces on the PC. They are something to behold and sadly the Amiga's batch barely scratch the surface.

It's not just Doom clones that have wound me up, I've been waiting for TFX for two years now and have just read that Frontier // is to be put on hold. It's sickening, Amiga owners have to put up with a lot of rubbish from these people and it's becoming very boring. Fade to Black, the 3D sequel to Flashback is now available for the PC and it looks stunning. Will it be available for the Amiga? Fat chance, Why? If decent software is there then people will pay for it, even upgrade their machine in order to play it. I whole heartedly agree with Mat Bettinson who wrote an article (welcome to tomorrow, CU Amiga Oct 95 pg 130) stating people will upgrade if they're given a incentive and its true. It doesn't cost that much to improve an A1200 considerably, if I can afford to do it anyone can.

I hope that Amiga technologies get their act together and really try to make the Amiga work, restoring the faith of the consumer and publisher in a machine which is being left at the back of the class due to ignorance and laziness.

The quality of software has to improve and potential buyers have to know of the Amiga's existence through advertising and shop demos.

We've been saying this for years. It would be a crying shame if the Amiga finally fails after all its been through, after so many have worked hard, only for it to be superseded by the current toy consoles.

## Jon Mills, Manchester.

## Er what???

My company is currently developing a networked marine training simulator based on an Amiga. Could you please advise on possible contacts for companies or individuals, preferably in this area, who could manufacture custom input devices such as azimuth controls for ships' headings etc.

Michael Maccy, Nutec, Unit 3 Southern Deemouth Centre, South Esplanade East, Torry, Aberdeen AB1 3PB. Tel: 01224248481.

Eh? Azimuth controls? Ships' headings? Maybe our readers could help? Contact the above address if you can.

## Crossed wires?

Surely Escom have got their wires crossed somewhere? As a business user, I use my Amiga for a variety of uses, including video and multimedia work and during last year, it seems that every time I walked into a shop or telephoned a computer company, I was told that the Amiga was dead and that I was throwing my money 'down the drain'. I decided to ignore the comments and put my faith back into the only machine capable of performing miracles on a small budget.

Since the Amiga has been out of the picture, the competition have been working on their own 'multimedia systems', effectively moving in on one of the Amiga's strongest markets. Sure, the Amiga still has a few aces up its sleeve but even these are looking shaky. There was a time, not so long ago when the Amiga was the only small budget computer capable of handling multitasking and multimedia marvels. Light Wave showed the industry just how serious a machine it was. Today, there are Multimedia

## THE FAR SIDE

By GARY LARSON

"tr's no good, Dawson! We're being sucked in by the sun's gravitational field and there's nothing we can do! ... And let me add those are my sunglasses you're wearing!"
machines everywhere, running their own hastily written, Scala-type programs and their own versions of LightWave.

The Amiga's strongest asset was its ability to perform miracles at a fraction of the cost of similar systems. However, at over $£ 2000$ for an A4000T and no low-cost A4000 desktops, the Amiga is being priced at at a rate that makes it out of the reach for most individuals and a cost that might steer business users to the competition. Come on Escom, don't let us down, on the one thing that may destroy the Amiga's long term future.

## David McLaughlin, Scotland.

## Attention Matt, Loughton

Desperately seeking Matt from Loughton. Yes you, Matt Barlow from Loughton, A chap called Neil Adams form Norfolk has kindly sent in a copy of the BBC emulator that you were asking about in Backchat October 95.

Please send in your full address or contact us here at the office, so we can send it out to you.

## Upgrade, why don't you

I totally agree with Mat Bettinson's 'Welcome to tomorrow' points of view in the October issue. The reason the PC is so successful at the moment is that PC owners are willing to buy the latest upgrades in order to play Doom, Doom II, Bioforge, Dark Forces etc. When Quake, which is Doom III, appears it looks like nothing short of a Pentium will do. have a PC 486 DX2 80 MHz 12 Mb RAM CD Rom at the moment and that is quite adequate to play $99 \%$ of PC games.

In total it has cost me $£ 500$ to upgrade from a 286 to present. I got the 286 for free. It really upset me when Amiga owners moan about paying for more RAMetc just to be able to play moderately enhanced games. PC hardware costs a lot more than Amiga stuff and does just the same job, yet PC owners buy extra hardware in their droves!

Here's a small tip, 72 pin Simms advertised for the PC also work 100\%. okay with Amiga RAM expansions, yet are much cheaper. You can pick up a 4 Mb SIMM for only $£ 85$ pounds inc VAT and P\&P, yet some Amiga suppliers charge $£ 139$ !

Julian.smith@drugnet.co.uk>
Here's another small tip. Make sure you know whether your expansion board takes single or double sided SIMMS. If you buy the wrong type it simply won't fiit, regardless of how cheap it is.

## Fears cover disk

Unfortunately there seem to have been some difficulties, with last month's Fears cover disk. If you've had problems loading the full three level demo return your disk to: Disk Express 7 Willow Court, Bourton Industrial Park, Bourton on the Water, Gloueester GL54 2 HO WARNING please make sure to create your Citadel disk first and keep it before you send this disk back as you will only receive a three level demo of Fears in return for your disk.

## TEAM TALK

November 5th, the annual celebration of Guy Fawkes* hot clemise, saw the team abandoning their Amigas and heading clown to a local hostelry for some liquid sustenance and stories ...

## ALAN DYKES



I ance knew a bloke called Guy Fawkes! He was small, had mousy blond hair and walked with a limp. He said he was related to the original Guy Fawkes but we didn't believe him until he tried to blow our school up and the cops caught him and hurned him at the stake. This is genuine. True. Henest.

## LISA COLIINS



I hate Guy Fawkes night actually. It's the fireworks that annoy me most. In fact I hate planes, trains, tubes, ships, cars, crowded pubs, open spaces, closed spaces, people coughing, silence, scary stories, moonlight, empty telephone boxes, hut most of all fireworks that go whoosh-bang and make me jump.

## TONY HORGAN



When I was a kid we used to create what were known as smellyworks. This involved finding a large dog turnd, sticking a firework in it and setting it off. It created an awhul mess and our mums used to kill us hut it was great fun. But don't try this at home folks and always wear nubher gloves and goggles.

## MAT BETTINSON


"What's Guy Fawkes night?" asked our Antipodean staff writer. After the niceties of the execution of a 17 th century terrorist and the subsequent celebrations were explained Mat exclaimed: "do you really need such a lousy excuse to drink heer and set things on fire?" In Australia they do this all the time. It's called 'a hartie'.

## HELEN DANBY



I went to a fortune teller when I was very young whe predicted that, when I grew up, I would go to Art school and work with the letter A. I didn't believe her because, at the time, I wanted to be a nurse and work with children. I suppose in way I did end up working with children hut that's another story. (Watch it-Ed).

## JOHN KENNEDY



[^7]
# Subsco早 



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# Windows 95 Good for the Amiga? 

(1)here can be few people in the world who missed the launch of the latest operating system for PCs, Windows '95. Microsoft are spending a reported $\$ 700$ million on the launch and subsequent marketing. Every major country was subjected to a barrage of marketing stunts such as painting fields around airports with the Windows '95 logo.

What has this got to do with you? Surely such an onslaught will attract more users to the PC market, away from Amiga technologies' home computer. Well yes and no. Yes, the mass advertising behind Windows '95 will help the PC cause but I also believe it will considerably help the Amiga.

## A better option

There are two main reasons why I think Windows will help the Amiga. First, Windows '95 will initially drive up prices of hard drives and RAM, making the Amiga look an even more attractive cost option. How? As Windows needs more RAM, 8 Mb at least, and swallows drive space millions of Windows '95 users around the world will be upgrading.

However, for the immediate future at least, there aren't enough Simms and hard drives to meet demand thus forcing the price up. It's expected that single Simms will raise in price by almost $30 \%$ in the next six months, making new PCs and PC upgrades more expensive.

The Amiga, however, with its low overheads, doesn't need huge hard drives and memory and will be cheaper by comparison. People wandering into dealers showrooms looking for PCs will be faced with having to pay more than they expected for a PC and then see a cheaper Amiga doing pretty similar stuff for much less.
'Pretty similar stuff': there lies


Windows '95: not really offering anything new that the Amiga hasn't already heen doing for ten years.
the second reason why I suspect Windows ' 95 will help the Amiga. Take a look at the features list of Windows '95: multitasking, plug ' $n$ ' play, easier configuration for games, no more MS-DOS (cough!), icons that can dragged around the desktop.

Heard this before? Of course you have, approximately ten years ago to be precise, just about the same time the Amiga was launched, the reason - because these are just some of the technical advantages that the original Amiga had and it had them ten years ago! But in the last ten years the Amiga operating system hasn't stood still, it's undergone numerous improvements. Today's models are fine tuned. Their multitasking is highly efficient, the plug-and-play equivalent in AmigaDos near perfect (compared to the first PC version in Windows 95) and works on every Amiga - rather than just the more recent models, games almost always work first time and, well you get the idea.

The end result is that the Amiga operating system and hardware will appear to do a much better job of these 'new' features than the PC and anyone (even those without computing experience) will recognise this. Now think of all that expensive marketing Microsoft is pumping
out - the result will naturally be thousands and thousands of eager people flooding through the doors of dealers, like Escom and Silica. Invariably such people will have a play with the PC first dragging icons around, clicking on the infamous Start button and pressing keys. The two representative stores I named earlier were chosen because they are two of the larger retailers, with stores in most towns. But these two chains also happen to carry both the Amiga and PC, as do many other dealers, so there's more than a good chance that new users going into such stores will see the Amiga, sitting there strutting it's stuff, doing it better, and doing it for hundreds of pounds less.

## Easily swayed

Of course millions of people around the world will still go for the PC, there are plenty of reasons to do so. I'm not for one minute suggesting that the Amiga is a better computer, or worse for that matter. However there will be many people who will be swayed, by the cheaper Amiga option.

These new users will want the same kind of software that they could get for the PC and will bring valuable extra spending power to the Amiga market, encouraging software houses like Softwood, Softlogik, Digita etc to spend more on R\&D and produce better titles.

Of course this could all be a pipe dream, but I for one don't think so, and neither do several of the larger dealers now stocking the Amiga again after its recent sabbatical. See you in the stores. Andy Leaning

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(6)

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Graphically enhanced throughout, Player Manager 2 Extra boasts a multitude of thrilling new features, exciting options and great sound effects.

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6
Train players from schoolboys to multi million pound stars
6
All the domestic and European cup competitions
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A choice of four playing views. Play as a team or in position
(9) 1-4 Players

6 Thrilling match reports
6. Alan Hansen predicts

6 Greatest games, greatest goals, champions, disasters and scandals - READ ALL ABOUT IT.

[^8]Detailed Management Tools



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## New for the Amiga 1 so

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6
Unique skill, coach and management assessment tools to plck your best team

6
Three skill levels
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[^0]:    MAIL ORDER \& HEAD OFFICE: Slica House,

[^1]:    APD demos like Ariel pictured here are all ahout speed and pushing back the houndaries, so Assembly language is essential.

[^2]:    Aho's that hloke in the suit in the picture here? We'll have to wait for the review copy to find out.

[^3]:    A I IMITED PERIOD YOU CAN BUY EASY LEDGERS 2 IT THIS NEW LOW PRICE (was £199.99) 3 DAY TRIAL PERIOD - CAIL FOR MORE DETAILS

[^4]:    Final Calc
    68
    Spreadsheets used to be boring. Not any more! Softwood's new number cruncher will amaze you with its super slick graphing functions too!

[^5]:    A To change to a different sheet or project you need a go via menus and requesters.

[^6]:    Simple yellow text, edged with a red outline gives all the appearace of hand wherdered stitching ail the appearance of hand-embroidered stitchi
    when placed on the textured hack ground

[^7]:    Whilst sitting in my local puh one night I could have sworn that my pint of guinness was talking to me. It said: "John go be a man, get yourself a wile, start your own business and huy a house". Not heing one to ignore anything supernatural I went straight out and did what it told me to do.

[^8]:    Registered users buy this great new version for only £10.00 (includes P\&P). Contact Anco for details.

