

THE COMPLETE PACKAGE FOR COMMODORE AMIGA OWNERS

AMIGA

FORMAT

UNLEASH THE POWER

HOW VIDEO CAN TRANSFORM YOUR AMIGA

GREAT LAUNCH ISSUE!

880K OF PROGRAMS

NEW ZEALAND STORY

PLAYABLE DEMO OF THE ARCADE SMASH

PLUS • ART GALLERY • UTILITIES •
WORKBENCH HACKS • ANIMATED DEMO

NO AMIGA SUPERDISK?
DEMAND ONE FROM YOUR NEWSAGENT NOW!

14 PAGES OF GAMES / MAC EMULATOR / WIN A £2,000 COIN-OP

ISSUE 1 ■ AUGUST 1989 ■ £3.50

PLAYFUL



"Finest playbits and enjoyable
scanned games to date"

"With graphic marvels, the action's
tough... designed to keep you
glued to your disk"

"A popular movie license built edgily
by great game play, an unbeatable
format... goodie to say, I'd buy it
... miss this and you're missing
the hottest game of the year"

STAI



BATMAN

£19.95 £24.95

ATARI ST CBM AMIGA



"A sure winner with the official
hardworking the game computer"

"There is more than enough
action in this one to keep you
coming back for more"

"A superb game with such
a superb gameplay"

Computer Games Week F&B

INTELLIGENCE

BATMAN

THE CAPED CRUSADER



"Special FX programmes the game and have done a great job, not robbing the character of the original with a 'flinty' humour."

—*Amiga User*

"The characters and backgrounds are striking — each are superlative — the game features a soundtrack to glorious, revised stereo." —*The Official*



"polished in every aspect — from the humorous story-line to the end of the nighting."

—*The Games Machine*, Dec 1988

"... you go to the very best of your life... the best of your life... the best of your life... you game it. Voyager's got it. And that's not all. Ocean there is a cassette soundtrack which has to be one of the most magnificent pieces of music I've ever heard."

—*Official Computer*, 23.11.88

"... scoring & D graphics! The most impressive I've seen on the ST... a great arcade soundtrack! The cover is again! It is a great game that will keep you playing."

—*ST Action*



STAI

ROBOCOP
DRAGON NINJA
VOYAGER

ATARI ST £19.99
CBM AMIGA £24.99

Ocean



**A-MAX MAC
EMULATOR.....64**



**X-CAD
DESIGNER63**



**TOP TEN AMIGA
GAMES.....58**



**SOUND
PROCESSOR.....73**



GAMES

FORMAT GOLD

- KICK OFF34
- NEW ZEALAND STORY38
- POWERDRONE40

REVIEWED

- AFRICAN RAINBOWS34
- CIRCUS ATTRACTIONS46
- CLASSIC INVADERS54

- GREYTEXT HOCKEY40
- GUNSHIP48
- JOURNEY42
- MAYDAY SQUAD43
- MICROPROSE SOCCER.....34
- NAVY MOVES.....36
- RAMPAGE53
- SKYWEAR53
- SPHERICAL36
- VINDICATORS37



VOYAGER.....37

REGULARS

- NEWS6
- PREVIEWS10
- SCREEN PLAY33
- MUSIC67
- WORKBENCH.....75
- PD UPDATE.....79
- GAME BUSTERS97



- LETTERS.....105
- GURU114

SPECIALS

- COMMODORE
INTERVIEW14
- VIDEO17
- SHOOT-EM-UP
CONSTRUCTION KIT.....26
- TOP TEN GAMES50

THE NEW ZEALAND STORY: playable demo of the superbly addictive coin-op hit • **ART GALLERY:** classy examples of artwork • **DOTIL:** DOS made easy for beginners • **SWINGIN' FROG DEMO:** delightful animation • **WORKBENCH HACKS:** two fun hacks to play with • **TRACKMON:** keeping track of your disk drive • **VILBM:** viewing pictures with no fuss.



Green's The New Zealand Story

THE VIDEO GAME17

Stunning, high quality video from Alternative Image.

Welcome to the first issue of a new magazine that already has 13 issues behind it. We will be building on what ST/Amiga Format did to provide the best coverage of graphics, music, games, DTP, hardware, video and all other areas of the Amiga scene. We've got 880K of Amiga programs every month on the disk and a magazine packed with Amiga-only entertainment and information.

There has never been a better time to own an Amiga or read Amiga Format.

REVIEWS

X-CAD DESIGNER.....63
MAC EMULATOR.....64
SOUND PROCESSOR...73
FUTURE SOUND 500...31

COMPETITION:

Win a Gauntlet II coin-op...60

AMIGA FORMAT ISSUE 1 JANUARY 1989
 PUBLISHED BY FUTURE PUBLISHING LTD. 1 Green Road, East, Oak Hill, 1000 44000
 © FUTURE PUBLISHING 1989. No part of this magazine may be reproduced without our permission.

EDITOR Nick Brady **PRODUCTION EDITOR** Debbie Thomas **REVIEWS EDITOR** Andy Smith
TECHNICAL EDITOR James Ashburn **ART EDITOR** Victoria Ashburn **DESIGN ASSISTANT**
 Kelly Woodings **CONTRIBUTING EDITORS** Tom Brown, Murray, Brian Ashburn, Christopher
CONTRIBUTORS: Steve Jarrett, Andrew Hild, Richard Newhouse **AD MANAGER** Joanne Jones
AD PRODUCTION Louise Cook **PUBLISHER** Tony Ashburn
SUBSCRIPTIONS/MAG. ORDER The Old Barn, Longmanton, Somerset TA10 5NF Tel: 0438 7001
PHOTOGRAPHY Andrew Jones, Bathampton **COLORS ORIGINATORS** Nigel Goughley Ltd.
 Bathampton, Lower by Bathampton **PRINTERS** Chase Web Offset, Gillingham **DISTRIBUTORS**
 XM Distribution, 4 Longham Court Road, Stevenage, London SG1 2BQ

AMIGA FORMAT ARRIVES

We have finally achieved the thing that Amiga owners have been clamouring for and here it is, your very own magazine, Amiga Format, 116 pages packed with news, reviews, features and entertainment.

The brand-new Amiga Format already has a great history behind it, and now we are bringing out on our own things we are going to get even better. You can see from the first issue that the balance of content will be the same broad mixture of everything from graphics to games, music to DTP.

Of course, one of the most important things is that we have taken the whole cover story just for Amiga programs, but only will we let bringing you the best in playable game demos and utilities, but there will be much more interaction between the disk and features inside Amiga Format, the opportunities for using the disk in conjunction with the graphics section in particular are immense.

There are also plenty of new features that make this not just the biggest but the best Amiga magazine. Brian Larkman joins us from real time as Contributing Editor for graphics. His well-known expertise as a teacher in computer art and long-time Amiga user will produce the most authoritative reviews, helpful tutorials and



Amiga Format really arrives.

superb artwork. On the music side we've also called in the best in the form of Jon Bates. He starts this month with an overview of the Amiga music scene and will be providing definitive reviews and tutorials in future issues.

There are many old favourites that are being expanded to meet demand including Worldbeat, PO Update and Transformers. We are also busy selling through your questionnaire replies to make sure we give you exactly what you want.

It's also exciting time for all of us as the Amiga is taking off like never before and we at Amiga Format are here to help you make the most of it.

SUBSCRIBE! SEE DETAILS ON PAGE 20

VIRUS X VIRUS

The most popular PD virus-killer, Virus X, has itself become the victim of an infection. American author Steve Tibbet's thoughtful provision of the source code with the program has let enthusiastic hackers produce a version that itself acts as a virus. Fear not, though! The dodgy version can be identified by the version number 3.0. Steve is skipping straight from Version 3.0 to 3.4.

ARTS CONTEST

As part of the Edinburgh Arts Festival, Amiga Centre Scotland is running its animation competition again this year. Winners will have their work displayed at a special exhibition at the Festival. Entries should be sent as PAL VHS videotape or on disk, to arrive by August 24. Further information about this unique event can be obtained from Martin Lown at the Amiga Centre Scotland, 4 Hart Street Lane, Edinburgh EH1 5BH, or by phone on 027 507 4042.

SHOWINGS

What a glorious show it was last if you don't mind being trapped in an enclosed space with several thousand Commodore owners, that is. The Amiga-dominated totally, there was hardly a C64 in sight, and consequently this year's Commodore Show was also buzzing with a lot more interest than earlier previous ones.

There was no single outstanding event but the feeling of excitement was tangible and there was a host of new products on show and being announced. Serious software and hardware were very much the order of the day, with only a couple of games houses represented, so the vibrant atmosphere was all the more gratifying.

Attendance was 17% up on the previous show at the 12,000 mark for the three days and the organisers, Database, are pleased with the way things went. As yet there is no date set for the next show, but we'll keep you posted.

MICROILLUSTRATIONS WRANGLE

Visitors to the Commodore show may have noticed that MicroIllustrations had their own stand where Illust 2 was on display, and that copies of Photon Paint 2 were on sale at other stands. At first glance this isn't unusual, until you realise that Activision are still claiming the UK rights to these MicroIllustrations products.

If present the situation is unclear but it appears that Activision are involved in a legal tangle with both MicroIllustrations in the US and the new group which claims to represent them in the UK, which means that neither program will be easily available until the dispute is settled.

Let's hope that's not too long away, because this is what Jon Bates and Brian Larkman had to say about Illust 2 and Photon Paint 2 respectively...

MUSIC XTREME

Music it for the Amiga is coming, but from where? The American software house MicroIllustrations has been promoting this stunning sequencing, mixing and sampling package heavily in the American press for well over a year now, bemoaning, therefore, that the only versions used this side of the pond were demo versions that had yet to be de-bugged.

The first demo version, which was pretty spectacular, was shown by Activision who claimed to have an exclusive deal with MicroIllustrations. Confusion has arisen now since dealers and the press alike have been informed that The Software Business, now has "the exclusive UK and European rights to Music X", and was exhibiting at the Commodore show and taking orders with one MicroIllustration staff member doing the demo work, although at the time of going to press they "haven't got the final version yet" but had for a program that has been advertised for nearly a year. Activision claims the matter is "under negotiation" with matters about contractual obligations. Time to stand back and watch the litigation!

PHOTON PHANTASY

After a few quiet months on the Amiga painting front, things are heating up again. First it was Delux Paint II, soon it will be DigPaint 3 but now we have Photon Paint 2.

The original Photon Paint has remained the favourite of the three PAW painting packages for most artists because it is the most easy to use and most "powerful". Many traditional effects are easy to achieve, including the best watercolour effect so far on the Amiga with Blend. The new ver-



sion provides lots of new features and greater speed without sacrificing the effortless operation.

The most dramatic additions are contour mapping and multi-pass, "background" box animation, but also included are pencils, airbrush, rubberstamp, penknife, auto-thickening, cyclic draw and many more minor enhancements.

In line with our new policy for graphics reviews, a really full description of Photon Paint 2 including DTP tips and tutorials, written by people who are using the program every day, plus original artwork that will be included on the cover disk, is being prepared. It takes time, but you will see it soon! Photon Paint 2 is

SGSIGNS OF LIFE



Monitors are available on import from Diggins, Southampton tel 0705 700000 or 079 95.

HOLOGRAPHIC AMIGA

One of the more unusual sights at the Commodore Show was the first hologram generated from a microcomputer image. Using equipment developed at Loughborough University and at Amiga 500, Rob Munday and his team, with advice from the Amiga Centre in London, have produced a 3D hologram of a partially-annihilated warplane that revolved using Strid 3D.

To produce it, over 100 frames were generated and recorded onto a photographic plate in eleven pairs as a series of vertical strips. Viewing the image

from the front, slight movements of the head reveal hidden parts of the object that would normally only be seen if it was real and solid. This is normal for a hologram as anyone with a bank card



knows. Usually though, the object from which a conventional hologram is taken is a 3D model, here it is a series of flat, 2D images. This is much more difficult and has previously only been achieved

using high-powered Gxy super-computers. Now, in another first for the Amiga, a 3D computer model has been recorded holographically.

The physics is quite difficult, but if I understand it correctly, the process works something like this: conventional holography captures the image of a complete 3D object in such a way that the parts of it that can be seen vary according to your viewpoint, but as would happen with a 'real' object. In effect the hologram has superimposed an almost infinite series of 'views' of the object which are revealed as you view point is changed. Stereoscopic holography has the same effect but in this case the 'views' are captured separately like the frames of a television film, one for each eye, in the form of pairs of vertical strips as the plate.

The advantage of this method is that the content of each 'frame' is much more controllable so that any object capable of being modelled on a computer can be captured in 3D and even animated. The use of Amiga, or other cheap micro, also means that the commercial potential of such 'animated' holograms is much more likely to be realised. It is only a matter of time before full-colour, fully-animated sequences and even whole films appear.

JUST SAY THE WORD

Computers can be of great use to the disabled in all manner of ways, one of which is demonstrated by Amos a new speaking version of their word processor Proset II. It is designed for use by the blind and is currently in undergoing development and testing.

All Proset's functions are available from the keyboard, which is essential because pull-down menus and a mouse are of no use to blind users. The VFF will be able to speak each key as it is pressed, speak every word as it is typed, read back the current line, read back from the start of the paragraph, repeat characters as the cursor is moved and speak useful status information. Prior and release details have not been decided yet but Amos promises discounts for the visually handicapped. More on 0732 68800.

ROMED MACHO VIDEOS

Pinpoint are well known for their digitisers and other add-ons to other machines, but now they are branching into the Amiga scene too. The first line up with the Video Image Digital Imaging, VIDI Amiga.

Although it's their first attempt it could make a big impact because it is relatively priced at £39.95 and has an impressive list of features. These include grabbing frames from a running video in a 20th of a second in both mono and colour, load and save in RIFF format, overlying an existing frame anywhere on an existing one, a user-definable palette, analogue control and brightness, contrast, right level brightness control and crop-down menus.

The package includes a video cable, so all you need is a VCR or camera. At time of going to press Pinpoint were still working to make the unit produce colour pictures and the latest details can be obtained from them on 0800 414611 or at 6 Farnham Road, Livingston, Scotland EH4 6TE.

ACCOUNTING FOR TAPERS

Equinox have enhanced their Small Business Accounts program to create SBA. Also its new features add to an already comprehensive list of capabilities.

Many magals will be interested to know that it provides profit and loss statements, trial balance, full audit trail, VAT reports, balance sheets, budgets, day books, account group reports, transaction listing by batch or account heading and a constant update of cash position and profit.

The new features are debitors and creditors information, enhanced journal entries, a chart of accounts and related security allowing copying of the chart of accounts and access to COB commands.

SBA also costs £15 and existing users can upgrade for £34.95 - 0150-P4P. Equinox Business Systems can be contacted for details on 01 733 0960 or at 16 Ainslie Street, New Inn Yard, London EC3A 3PB.

A2500 VANISHES

If you are looking for the promised review of the new Amiga 2500 in this issue, then don't bother, because the A2500 has been phased. Planned to have a 14 MHz 32-bit 68020 CPU and up to 4 MB of RAM, the A2500 would be a straight upgrade of the A2000 through existing add-ons, which is thought to explain the strange disappearance. Commodore prefer to wait for the A2500 which will contain the 33 MHz 68020 CPU.

However, it remains to be seen whether or not the appearance of the A2500 US, which will run the Unix OS, is imminent. Another rumour that has resurfaced is that we will shortly see A2500s fitted with 16 MB of RAM as standard. Apparently



■ The A2500 no longer a machine in its own right.

there are such machines in existence, but whether they become available in the shops is as yet unclear. Commodore have made no announcement of the machines unlike the A2000, which

was openly talked about. We will have to wait for further details before getting our hopes up.

The A2500 is also making news because of suggestions that it is being 'grey imported' from (Belgium). This has prompted complaints from retailers and its announcement was the 15 at the Commodore show that both machines being sold off cheap might cause problems for the buyer. So watch out for any machine that comes with a foreign manual or a knock-down price, because you could have problems with different voltage power supplies and the lack of a valid warranty if anything should happen to go wrong.

FLAMES: WLEAD

Good news for financial flak. A new version of *Flame II* is *Flame II* speediest has arrived. Version 3.0 has been reduced in price to \$129.95 and offers new features, including full import/export of Lotus 1-2-3 worksheets, Access support, Database mode from the database and an outline mode for viewing different levels of data on screen.

Owners of *Flameplan* can upgrade to *Flame II* for \$57.50. *Flame II* will also accept *Tradeview* on other existing retail software. Further info from *Flame II*, Black 3 Ltd 1, Barnet Avenue, Southwold Industrial Estate, Larkhall, Southwold MK3 3PA. Tel:0800 687770.

COLOURFUL GAMES

Introducing a truly genuine with a few games to speed! *Hi-Tension* are making an *Amiga* graphics, a graphics expansion card in two versions. *Zooming* is at \$99.95 for the *Amiga* graphics 1, which raises the screen resolution to 1024x768 pixels and provides a palette of 256 colours on screen from a choice of 16 million. The card comes first with 256k of high-speed RAM.

The *Amiga* graphics 2 will cost the princely sum of £199 and for your cash you get 1024x1024 pixel resolution and the same game cards. (Despite the amount of high speed RAM in this one, *Hi-Tension* is to handle most full screen at the same time. Further details from *Hi-Tension*, Alexander House, Barrow Road, Macclesfield, Warrington, Tel:0525 344494.

CENTRAL TELEVISION

The *Amiga* is taking off as the most important tool in video work with new products like *CC's Videocenter* turning on the screen. The *Videocenter* contains in one unit the facilities of a video mixer, generator and PAL generator.

The *Center* mixes an incoming video signal with computer output using sliding faders or software to control fade to black and the mix level. It also has a filtered and buffered RGB output for connecting an RGB monitor. VC inputs and outputs take advantage of the new *Logic* HD systems. CC are no novices to the video game having produced the *CC Studio* PAL kit that, among other things, mixes the graphics and live action for the BBC's quiz show *Going for Gold*. The fact that they produce everything from graphics to broadcast standard graphics and captioning systems really makes this one to watch out for. The *Videocenter* costs £550 from CC Systems, ex VAT £379.95.

If full of PAL, monitors, graphics and buffered RGB outputs is just so much video to you, then check out the video feature on Page 17. Also keep your eyes peeled for a review of the *Videocenter* coming in *Amiga Format's* pages soon.

FOFT ARRIVES: THE FIRST OF A SERIES

Genie's massive space trading phenomenon, *Amiga* *First of the Series*, is set to arrive on the *Amiga* in the near future. Titled by Genie as an 'Elder Game', *FOFT* was some two years in development and was advertised heavily in the press prior to its release on the SE. When it finally arrived the game proved to have a few major gameplay flaws which, when combined with the appalling manual, reduced the game almost to unplayability.

Genie listened to all the criticism, read the reviews, took note of what people had to say and set about correcting the



game before releasing the *Amiga* version. Ian Stewart, Genie's MD, is now 'flying pretty high with the product - we're really doing the business and got it just right.' When asked if he thought *Amiga FOFT* really was an 'Elder Game'

he replied 'It's not an Elder Game we're after as much - we just wanted to produce a really good game that would appeal to fans of this genre'. Let's hope Genie really have got it right this time and watch the review pages next month for the definitive *Amiga* format verdict.

The next game in what's planned to be a *Foundation* series is well under way. It won't be another space trading game about ship, but it promises to be just as large and have just as much playability. It's not due for release until sometime next year, so we'll bring more news as it comes in.

ANIMATED MAGIC

A really useful piece of software must have two qualities if it is to be marketed successfully as a professional product. It must do its job well, obviously, but also it ought to look good, operating intuitively and ergonomically so that its power is not hidden by a complex interface. In short, it should be fun to use. *Amiga* *Magix*, £69.95 from *Magix*, Tel: 0753 730000 is a powerful and almost unique piece of software for editing *Amiga* files, but like many *Amiga* products, it suffers from an ugly and clumsy interface that takes time to get to grips with.

This is a great pity because, unlike most other animation editing and sequencing programs, it allows direct editing and rearranging of individual frames of the actual compressed *Amiga* files. What it does can be divided into

two areas: *Anim* editing and enhancement, and *Digital Video Effects* *DVEs*. Among the editing features are: full cut and paste between *Amiga*, plus merge and crop. Full *Alpha* type transitions, layering of several *Amiga* on top of each other, adjustment of colours (for use frame or globally) and optimum palette, and use of any resolution or screen mode. *DVEs* include all the usual transition, wipe, fade, roll and spin plus a library of special effects such as shutters, flares, etc that can be enhanced with other customised effects by the user. The layers of effects possible can be so complex that the developer has provided space for a flow line description that can be saved with the *DVE*. A lot of people are really going to need this versatile and powerful package.

KLASSIX GOING CHEAP

The first three titles on US Gold's new budget label *Klassix* are *Out Run*, *Foundations* *Waste* and *World Class Leaderboard*, each one for the amazing sum of just £9.95. As yet no other full-price software houses has followed in the move to cut-price bestsellers.

Among US Gold's major competitors are *Microprose*, who have no plans to introduce a budget 16-bit label according to Managing Director Stewart Bell. 'You get what you pay for. If you can't compete on quality or gameplay, you could try to compete on price. If I had bought a game at £9.95 I would be very annoyed to see it being sold for £10.' Advertisers *Amiga* *Only* said they too had 'no plans for a budget label, unless a full-price only company'.

Mastertronic already produce budget *Amiga* games like *Schneider* and *Chase* for £9.95. Spokesman Andy Wright was unimpressed by US Gold's move and promised 'a new range of 16-bit titles at a new price point.' Watch these pages for more details.

DESIGNS ON DISKS

Over recent months, *Amiga* seems to be breaking the habit of a lifetime and converting their assets into *Amiga* graphics programs for the design. This is quite a revolutionary development for the *Amiga*. Already *Cyber Paint* has swept across in the form of *Designer* (available in *Amiga*, format from *Amiga* £99.95) now the whole set of *Design* *Ones* has arrived, along with an entirely new one.

A number of other developers are starting to offer ready-made objects for use in 3D modelling systems, but this set from *Amiga* is the most comprehensive and useful available. *Design* on offer are:

- Architectural *Design*: everything from a drawing to a complete city, transport track, Lloyd Wright.
- Future *Design*: space stations, space craft, robot vehicles and animals. *DTI Star Wars*.
- Human *Design*: skeletal model and female human figure. Detailed structures that are automatically corrected. The 31 items don't look very commercial.
- *Microprose Design*: *DTI* edited list. Almost all possible components for detailed, advanced effects.
- *Interiors*: latest addition to the set, with room plans, objects for the inside of a house. £9.95 each.

All the 32 *Design* series are available from Precision Distribution 201 330 7100. Now we can look forward to *Cyber Texture* with eager anticipation.

Bloodwycch



**ARGUE! BARTER!
LIE THROUGH
YOUR TEETH!!!**



Atari ST Screen Shot



Amiga	£24.99
Atari ST	£24.99
Spectrum (taped)	£9.99
Spectrum (disk)	£14.99
Amstrad CPC (taped)	£9.99
Amstrad CPC (disk)	£14.99
Commodore 64 (taped)	£9.99
Commodore 64 (disk)	£12.99

As the people of the Bloodwycch awake to a new dawn, they find a stranger in their midst – from one of many races he has come. His task is to halt the demon that has descended within the Castle of the Bloodwycch.

Unification of the Crystals of Sangarr will awaken the Behemoth in his lair for all eternity. Should they remain separate, then he shall rise to bring darkness into the world.

This unique role-playing fantasy game allows greater interaction with the environment than has ever been seen before. Argue, barter, negotiate – even lie through your teeth! The fully implemented personalities of all the characters in Bloodwycch allow a rich style of role-playing that has only been dreamt of.

With one or two player simultaneous mode, this is the game that you've been waiting for. Bloodwycch for those that dare!

COMING ATTRACTIONS

HOT-OFF-THE-PRESS PREVIEWS OF ALL THAT'S NEW IN THE SOFTWARE WORLD

LONE WOLF AND THE MIRROR OF DEATH

Audiogenic

Somewhere in the sinister lower fortress of Raven-Bar lies the last gem of power, the famous LoneWolf. As the Lone Wolf, the last Kai Master, it's down to you to recover it. This arcade-action game is based on the Lone Wolf role-playing books of Joe Green: so get your sword sharpened and prepare for some frantic on-screen combat very soon.



■ Raven-Bar with a steady weapon.

XYBOTS

Tengen/Domark

Major Rank Hardy and Captain Ace Green rise in this role or strategy strategy (Mistakenly) awarded from the short side



■ Major Rank and Captain Ace take time out to destroy a few robots.

up, as well as shooting all the robots, you have to get to find that other robot to make sure of the team. Like Wolfenstein, this game involves a lot more thought than your average arcade shoot 'em up and is best played with a friend.

CASTLE WARRIOR

Dolphine/Palace

The computer game art of French (several) publishers Dolphin is getting up to launch a second game, full of medieval-style action and with its own twist. As filled the story, it's a mission to find the spirit in the palace that your father has found to control, you'll have to battle through subterranean caverns, take on dragons, dodge spells lobbed at you by evil mages and still make it home safely. (Watch you can handle all of that?)



IMAGE WORKS

Image Works are not sitting still for a moment. A string of releases is up and coming, including Colon From Beyond, in which you play a military commander to return home and help defend the planet from alien attacks. Digitized sound effects and superlative graphics are provided in this one, to make the home play more closely.

There's also a one or two players horizontally-scrolling shoot-'em-up by the name of United Phobos. It has been designed by David Bishop and programmed by Tom Crowther and David Hall and features graphics, strategy elements and more of those superb graphics.

Another adventure game is also well covered for with the release of Horizons. In the setting of a mysterious world inside a large glass bottle, the player assumes the role of Captain Franklin and must rescue a scientist who has been kidnapped and imprisoned within the formation by a deadly beast of fangs from a neighbouring planet. There are jungles, temples, deserts and forests to be explored, clues to be found and puzzles to be solved in a game that's bigger than it's rating.

Getting back to arcade-style games, there's 007 coming up. Using that old Moody mode, this horizontally-scrolling platform game combines shoot-'em-up and arcade adventure and is set in the contemporary world of espionage where the player takes the part of an operative Dynamic Outgroup. With over 4,000 screens on screen, 007 promises to be something of a treat.



■ Exploration in the weird and wonderful mysterious world of the horizon.



■ Making a bee-line for the honeytrap.



■ 007 again out for the honeycomb.

SLEEPING GODS LIE

Empire

The unsuccessful world of Tzucan is under threat from the Anchiago. Gods have turned bad, and the people's only hope is to find someone who can take the sleeping god O'Wah. That person, you think, is you.

WOL is a real-time, shared-graphics-space action-adventure game that has a huge game area and a large game tank. There are numerous enemies to fight, if you can find some weapons, and islands to island with like prepared to go on subquests for additional help from some of those as it looks as if you'll be trapped in this for a while. Watch for the delicious reward in each month's design if you can.



Working Sleeping Gods Lie is the name of the game, but not the alien.

PAGESTREAM

Amiga DTP is hitting the high-tech today, and this beautiful software comes from the future. It will include every of the most sophisticated aspects of professional publishing except a vast range of fonts, but all at a reasonable price. When the finished, high-quality version is ready, just go, looking to review, everything we'll bring you the full review.



Pagestream is certain to be a big step forward for DTP.

INDIANA JONES AND THE LAST CRUSADE

US Gold

The man with the hat and the whip and the shield is back. The dusty clothes is indeed back. Guide Indy through action.

packed atmosphere based on scenes from the film, there are few limits to the platform game. In the first level you play the boy Indy and have to recover the Cross of Connors. For the rest of the game you play the full-grown-up Indy and some other similar adventures. But in practice none, because the whip-cracking action is starting on a screen near you shortly.



It's called the Last Ad, so find the Temple of Doom. Indy's back!

LINEL

Before software house Linel is another house that says, "Come into the unknown world. One to see the other side." From German programmers Omega, this adventure game tells the player in the role of one of them, trying to see the other side of the world. One is started with a sword and must then be the sword of the unknown world.

Programs should keep their eyes open for those a game in which you start as a boy named David, the hero of the game, and go through a series of adventures, and even become a hero. Because powerful enough and you'll have the game to tell the story, but you'll also have a story. It's a story to be given all and each ending all the way.

Last but not least is the game of David, the hero of the game, who starts as a boy named David, the hero of the game, and goes through a series of adventures, and even becomes a hero. Because powerful enough and you'll have the game to tell the story, but you'll also have a story. It's a story to be given all and each ending all the way.



It's the game David's story.



When the kitchen scene is over, the game is over.

EXACTLY WHAT ARE COMMODORE UP TO NOW?

If there was one person in the country who knew everything that was happening to the Amiga, who knew exactly what hardware and software would be available, you'd want to talk to him... so we did.

A sunny, bluebird morning on a typical hi-tech industrial park near the edge of Maidenhead, beside the green fields of the Berkshire countryside. Within the friendly redbrick walls of Commodore UK's head-quarters, in a light and airy office, sits Dr Robinson-Holmes. He is head of Technical Support and a guiding light of the Amiga Developers' Advisory Board in this country; and as such, he knows everything there is to know about developments in Amiga hardware and software. He's also uniquely placed to give an insight into how Commodore sees the Amiga's strengths and weaknesses, both now and in the future.

Commodore have been accused in the past of blurring the public perception of the Amiga, and even being confused about its

role themselves, with the A500 doing to be more than just a winning games machine, and the A2000, expensive for home use, moving into powerful 'business' roles. But in fact, just a few minutes' chat with Robinson-Holmes reveals a dedicated and experienced commitment to a very definite future for the Amiga range. Not one single use, of course, but certainly a distinct direction dictated by the Amiga's architecture and capabilities.

HOME USE

The A500, Dr Holmes believes, has now 'broken through the barrier of 'would it make it?'. A touch wary of revealing sales figures, he prefers to look at the total number of machines that have been sold to date and how from the user base: the A500 has passed the

one million mark, and of these some 5,000,000 are in Europe. In roughly a year, so Commodore reckon, the A500 will have outstripped the Atari ST. This comparison reflects the popular

"I have not seen a real Amiga game yet"

use of both as games machines, a role in which the Amiga is bound to become stronger and stronger as programmers' awareness of its capabilities grows.

Robinson peers the increasing domination of the 16-bit games charts by Amiga games (19 against 11 ST in the latest top thirty, he notes) and the concur-

rent release dates and equal prices of Amiga and ST games as "a major breakthrough", indicative that software houses now recognise the size and continuing expansion of the Amiga market. Even so, the Commodore people would join with many Amiga gamers in lamenting the tendency to port over 16-bit games from poorer machines without any adaptation. "We're asking for long-range development", he felt potential is a long way from being fulfilled. "I have not seen a real Amiga game yet", says Robinson. A challenge!

Meanwhile, any home machine nowadays must be able to support a couple of serious applications - Commodore would like to be able to bundle in some word-processing software with the computer - but up and home accounts are not seen as necessarily the machine's greatest strength. They particularly wish to encourage the 'hobbyist' user, who needs the machine as a leisure tool.

The pattern for the Amiga's future is revealed by the great emphasis Commodore place on its graphics capabilities, which is not entirely unreasonable considering the power available in this field as a result of the machine's design. Dr Holmes hopes to be able to bundle in graphics and animation demos, perhaps even a tutorial along the lines of the tiny Fred covering this area, and to continue to supply users with information about hardware and software for use in the graphics and animation field. In a similar



■ The Amiga 500: soon to have 1 Meg?



■ The Amiga 386: top of the range?

vide, the Arrigo is finding a niche for itself with the video enthusiasts. Commodore were proud of the fact that *What Video magazine* rated it the most important video peripheral of the year! And it's been described as the most significant development since the video camera. With a simple point-and-shoot, the humble A500 can provide a range of professional quality post-production facilities, particularly useful for dropping captions, logos or animation sequences into any video sequence.

Commodore sees the Amiga as having great potential benefits for the musician, too, despite the warning that the S1 has any inherent capability in this area except for an in-built MIDI interface, which can be bought quite cheaply anyway. The possibilities of the Amiga's internal soundchips have barely as yet been touched. At these times for home use of the Amiga will be even more enhanced, we are assured, by a strong push from Commodore on the use of the computer's unique multitasking capabilities. Keep watching this space.

Table 1

Magnetics, the supercollide 8000 with its big brothers the 60000, the possibly-to-be-released 4290 and the pipeline 43000, shift the Argo up into the business overboard. Once again, though, the impressive Kahrn-Hallam gives us not an ordinary computer trying to compete in the current world of accounts (mainframes) but a supercomputer. Instead, it is announced that the 4290, 4300,

machines as having specific strengths suited to particular uses. "The visual aspect is very important," he stresses, noting that the subliminal power the machine delivers for the price is its unique selling point. However, the perceived cheapness and flexibility of the Aramis may actually discourage some specialist users.

**"The Amiga:
voted most
important video
peripheral by
What Video"**

in a certain European country, we were told, every time the price was increased sales went up.

Interactive video programs, particularly for training purposes, represent one area "where the A2000 needs to go", says Patman. Desktop presentation is another "very strong area" particularly considering the high-quality graphics the machine offers, and even using the computer as a delivery system for slides and the like. Book-top publishing would not seem to be such a high priority, the editor having been amply filled already - "It's what you can offer that's different that counts" - although developments are expected as a Commodore-approved laser printer and other DTP peripherals shortly, following some evaluation. Computer art

design is another growing field, with some methods being made of use by architects and of a five-fold speed gain over the standard linked system.

Historically, with Ethernet and Token Ring already available, but still scarce in for some serious efforts, and a cut-price network for outside is currently under test. This latter example reflects the Amiga's attempt to move in on the educational market (if somewhat open by the gradual fading of the IBM, mainframe and the BBC Emulator for the Amiga has already sold more than a thousand copies, which counts for itself).

Perhaps the most glamorous professional use of the fringe is in the trendy media world of video and television; it's even been spotted by Rumsfeld's son in one of Bill Harts's programs! And we are told to expect some "very interesting developments" in the near future.

THE UNIVERSITY OF CHICAGO PRESS

The big news, of course, is of the imminent reorganization in the country of the UNICEF-sponsored KENGO association as its upgraded development of the Aringa 2000, of which there are more details elsewhere in these pages. The importance of development with an upgrade capability is highly stressed by Baburam, intended to protect Aringa owners from the "technology trap" that catches too many machines that were once at the forefront of progress.

Next step up, currently in development, is the R3000, employing a Motorola 68030 CPU. It gets a 60% speed increase running with a 70MHz MMU and a 68030 processor. Rumour

ground of a development machine under test by McDonnell Douglas in the States being glimpsed by a local over group, but Commissioners are playing their cards close to their corporate chest...

This concern, prompted by a lawsuit with no tie to bugs or to about products that simply aren't available, also delays news of the A2024's new motherboard design, which will feature 18 (vs 18) resolution and is clearly intended for use with DFP or similar high-quality presentation functions. More realistically, we can bring you the news that Windows 1.0 is currently used by 2.2 developers in the US for entertaining in comparison with the Enhanced Chip Set (ECS). It will feature a new non-redundant high-resolution graphics mode and fast loading for Niagara users, with this year's...

**AMDIA DEVELOPERS
ADVISORY BOARD**

The Amazon Developers' Advisory Board gave out at a meeting at the Commissioner's Space in June 1988. Its purpose is to act as a forum for ideas and to help sort out technical problems. New software and hardware is made available by Commissioner to the "beta testers" in actual use, and to be updated as a result of the experience. For instance, Workbench 1.2 underwent two changes after developers' testing. The Enhanced Chip Set (ECS) and Workbench 1.4 and now suffer less, with 12 developers

A bi-monthly magazine gives details of new projects, and also supplies technical notes. It advises developers on problems upon Platform 3.3 loading problems with certain games at certain drives, for example, were traced to a linker that exceeded the space left them by Commodore.

Developers are also asked to register their projects to avoid duplication of effort and unnecessary competition, whilst being guaranteed confidentiality in sensitive areas. This comes about as a consequence of Apple's coordination of Mac software developments, intended to encourage unique developments and avoid ideas. Marketing opportunities are also opened up and passed around within a European forum. A few facts have been set up at Manchester to make the very latest hardware available in all the possible combinations, to enable developers to bring their software and test it themselves.

Commodore plan to launch pre-release product, although they will test it in all ports release. The new ROM-BASIC ship is currently available for development testing.

So why do Commodore leaders with all these experiences and time-consuming feedback? Basically, Rahman Hakim was disappointed, support as an obligation for such a "young machine." The Amiga has been around for three years now, and three years is not a long time. Support answers the quality of Amiga software, which naturally attracts sales of the machine, helping "to keep the children and eggs out of the" of the second software, as no point buying that has had such a detrimental effect on other innovative machines. It further serves to control harmful rumors about Amiga technical problems, and gives a picture of development which puts Commodore in a good position in answering what they should actually face themselves, as they did with the BBC Electron.

Although CompuShare-UK do provide a technical support hotline for users, much of their effort goes into dealer support. 20-year dealers should always be able to help if you ever encounter any problems...



1. **Introduction**
 2. **Background**
 3. **Methodology**
 4. **Results**
 5. **Discussion**
 6. **Conclusion**
 7. **References**
 8. **Appendix**
 9. **Index**
 10. **Table of Contents**
 11. **Abstract**
 12. **Summary**
 13. **Key Words**
 14. **Keywords**
 15. **Subject Headings**
 16. **MeSH**
 17. **Indexing**
 18. **Classification**
 19. **Numbering**
 20. **Ordering**
 21. **Grouping**
 22. **Labeling**
 23. **Marking**
 24. **Notation**
 25. **Symbolism**
 26. **Diagramming**
 27. **Flowcharting**
 28. **Mapping**
 29. **Charting**
 30. **Graphing**
 31. **Tablemaking**
 32. **Formmaking**
 33. **Diagrammaking**
 34. **Flowchartmaking**
 35. **Mappingmaking**
 36. **Chartmaking**
 37. **Graphmaking**
 38. **Tablemaking**
 39. **Formmaking**
 40. **Diagrammaking**
 41. **Flowchartmaking**
 42. **Mappingmaking**
 43. **Chartmaking**
 44. **Graphmaking**
 45. **Tablemaking**
 46. **Formmaking**
 47. **Diagrammaking**
 48. **Flowchartmaking**
 49. **Mappingmaking**
 50. **Chartmaking**
 51. **Graphmaking**
 52. **Tablemaking**
 53. **Formmaking**
 54. **Diagrammaking**
 55. **Flowchartmaking**
 56. **Mappingmaking**
 57. **Chartmaking**
 58. **Graphmaking**
 59. **Tablemaking**
 60. **Formmaking**
 61. **Diagrammaking**
 62. **Flowchartmaking**
 63. **Mappingmaking**
 64. **Chartmaking**
 65. **Graphmaking**
 66. **Tablemaking**
 67. **Formmaking**
 68. **Diagrammaking**
 69. **Flowchartmaking**
 70. **Mappingmaking**
 71. **Chartmaking**
 72. **Graphmaking**
 73. **Tablemaking**
 74. **Formmaking**
 75. **Diagrammaking**
 76. **Flowchartmaking**
 77. **Mappingmaking**
 78. **Chartmaking**
 79. **Graphmaking**
 80. **Tablemaking**
 81. **Formmaking**
 82. **Diagrammaking**
 83. **Flowchartmaking**
 84. **Mappingmaking**
 85. **Chartmaking**
 86. **Graphmaking**
 87. **Tablemaking**
 88. **Formmaking**
 89. **Diagrammaking**
 90. **Flowchartmaking**
 91. **Mappingmaking**
 92. **Chartmaking**
 93. **Graphmaking**
 94. **Tablemaking**
 95. **Formmaking**
 96. **Diagrammaking**
 97. **Flowchartmaking**
 98. **Mappingmaking**
 99. **Chartmaking**
 100. **Graphmaking**
 101. **Tablemaking**
 102. **Formmaking**
 103. **Diagrammaking**
 104. **Flowchartmaking**
 105. **Mappingmaking**
 106. **Chartmaking**
 107. **Graphmaking**
 108. **Tablemaking**
 109. **Formmaking**
 110. **Diagrammaking**
 111. **Flowchartmaking**
 112. **Mappingmaking**
 113. **Chartmaking**
 114. **Graphmaking**
 115. **Tablemaking**
 116. **Formmaking**
 117. **Diagrammaking**
 118. **Flowchartmaking**
 119. **Mappingmaking**
 120. **Chartmaking**
 121. **Graphmaking**
 122. **Tablemaking**
 123. **Formmaking**
 124. **Diagrammaking**
 125. **Flowchartmaking**
 126. **Mappingmaking**
 127. **Chartmaking**
 128. **Graphmaking**
 129. **Tablemaking**
 130. **Formmaking**
 131. **Diagrammaking**
 132. **Flowchartmaking**
 133. **Mappingmaking**
 134. **Chartmaking**
 135. **Graphmaking**
 136. **Tablemaking**
 137. **Formmaking**
 138. **Diagrammaking**
 139. **Flowchartmaking**
 140. **Mappingmaking**
 141. **Chartmaking**
 142. **Graphmaking**
 143. **Tablemaking**
 144. **Formmaking**
 145. **Diagrammaking**
 146. **Flowchartmaking**
 147. **Mappingmaking**
 148. **Chartmaking**
 149. **Graphmaking**
 150. **Tablemaking**
 151. **Formmaking**
 152. **Diagrammaking**
 153. **Flowchartmaking**
 154. **Mappingmaking**
 155. **Chartmaking**
 156. **Graphmaking**
 157. **Tablemaking**
 158. **Formmaking**
 159. **Diagrammaking**
 160. **Flowchartmaking**
 161. **Mappingmaking**
 162. **Chartmaking**
 163. **Graphmaking**
 164. **Tablemaking**
 165. **Formmaking**
 166. **Diagrammaking**
 167. **Flowchartmaking**
 168. **Mappingmaking**
 169. **Chartmaking**
 170. **Graphmaking**
 171. **Tablemaking**
 172. **Formmaking**
 173. **Diagrammaking**
 174. **Flowchartmaking**
 175. **Mappingmaking**
 176. **Chartmaking**
 177. **Graphmaking**
 178. **Tablemaking**
 179. **Formmaking**
 180. **Diagrammaking**
 181. **Flowchartmaking**
 182. **Mappingmaking**
 183. **Chartmaking**
 184. **Graphmaking**
 185. **Tablemaking**
 186. **Formmaking**
 187. **Diagrammaking**
 188. **Flowchartmaking**
 189. **Mappingmaking**
 190. **Chartmaking**
 191. **Graphmaking**
 192. **Tablemaking**
 193. **Formmaking**
 194. **Diagrammaking**
 195. **Flowchartmaking**
 196. **Mappingmaking**
 197. **Chartmaking**
 198. **Graphmaking**
 199. **Tablemaking**
 200. **Formmaking**
 201. **Diagrammaking**
 202. **Flowchartmaking**
 203. **Mappingmaking**
 204. **Chartmaking**
 205. **Graphmaking**
 206. **Tablemaking**
 207. **Formmaking**
 208. **Diagrammaking**
 209. **Flowchartmaking**
 210. **Mappingmaking**
 211. **Chartmaking**
 212. **Graphmaking**
 213. **Tablemaking**
 214. **Formmaking**
 215. **Diagrammaking**
 216. **Flowchartmaking**
 217. **Mappingmaking**
 218. **Chartmaking**
 219. **Graphmaking**
 220. **Tablemaking**
 221. **Formmaking**
 222. **Diagrammaking**
 223. **Flowchartmaking**
 224. **Mappingmaking**
 225. **Chartmaking**
 226. **Graphmaking**
 227. **Tablemaking**
 228. **Formmaking**
 229. **Diagrammaking**
 230. **Flowchartmaking**
 231. **Mappingmaking**
 232. **Chartmaking**
 233. **Graphmaking**
 234. **Tablemaking**
 235. **Formmaking**
 236. **Diagrammaking**
 237. **Flowchartmaking**
 238. **Mappingmaking**
 239. **Chartmaking**
 240. **Graphmaking**
 241. **Tablemaking**
 242. **Formmaking**
 243. **Diagrammaking**
 244. **Flowchartmaking**
 245. **Mappingmaking**
 246. **Chartmaking**<

THE VIDEO GAME

Your view of the Aniga video scene might be slightly distorted. STEVE JARRATT went to Leicester to obtain an Alternative Image.



At the time of the publication of this article, the person whose name is written above the name of the person in the photo was a member of the group known as the RAGS. The person in the photo was a member of the group known as the RAGS. The person in the photo was a member of the group known as the RAGS.



■ The stills on this page have been taken from the 'Rage To Motion' rock video, featuring Canadian group Rush.

■ Background of orange, gas-sipping builds up while the live action continues,



merged into a colour frame that looks like a photograph.

The 'photo' is a multi-frame over the still newspaper image, and the live action is layered in as a second video source. The live action footage



had to be played back on and re-shot from a monitor fitted at the right angle to be watched into the angled 'photo' key box.

(Note that only the more expensive genlock units can be used as multi



generators in this way. However, similar effects could be produced by quite simply using sequences of static, digitised images to replace the pre-recorded video footage, with only a comparatively minor loss of quality in the finished product.)



■ Another shot from the rock video features a studio-based multi-processed sequence of rock stars within the frame of the studio. With this frame-based head running through the bank, live lens shots were drawn using a particular colour. This colour was then used as the 'key' on which the second video source would appear. In this case, three VCRs would be needed: one for the track, one for the stills in the frame and one to record the same picture image. The picture must be filmed in video separately and positioned in the frame so as to completely cover the key.

It is much the same way that the power of 16-bit machines augmented by BBCi computability has opened a world of opportunity to electronic musicians, the Amiga's superior graphics capabilities combined with genlocking promise similar opportunities for the amateur video producer. However, the often-overriding type that surrounds the topic takes the 'live nature of the beast': any Amiga owner who buys a genlock with the intention of creating 'Rage To Motion' is going to be sadly disappointed. But with the right equipment, plenty of time and some patience, impressive results can quickly be obtained.

The backbone at the heart of Amiga video production is the genlock. This ingenious device enables pictures from the Amiga to be composited with a video source from VCR, Camcorder or even another Amiga.

Any output TV or monitor picture is built up with hundreds of scan lines, all of which are drawn and redrawn around 50 times a second. To enable the separate images to be combined, their signals must be synchronised by locking together the line and frame sync generators of each source, hence the name 'genlock'. By keying the video signal onto a specified colour within the Amiga's

VCR monitor output, the genlock effectively acts as a real-time 'multi' generator anyone familiar with the blue-screen 'chroma-key' system used in TV broadcasting will see immediate comparisons.

There's a variety of genlocks on the market, starting at just under £100 for use with domestic standard videos. After that, the limiting factor is cash: investment is reflected in increasing picture quality and system flexibility.

THE RECIPE FOR SUCCESS

Video production is hardware intensive, so anyone who doesn't have or can't afford access to the

minimum of equipment might be advised to follow a different creative path. Practically, would-be video fanatics need an Amiga with one meg of memory, two video recorders, a genlock device, and specific software packages, depending on the image required.

A catalogue of additional equipment might fill the rest of the magazine, but to make the whole process a little less painful, interested parties should take a look at a video camera of some sort: a second-hand Camcorder is fine, although shooting budgets can always stretch to short-term rental or even to hiring a Super 8mm with subsequent transfer to video.



PLAYBACK

On the Road

■ PLAYBACK THINGS GO ON

Gradually, still photos of the leading company's customers' creative directions are selected with artwork to build up their logo.

For reasons of clarity, footage of photos was used in preference to using digitized images. There were numerous times it is found in and videotape 30 seconds which possibly shows in frames of 25 and 25 seconds. Since the faces are completely covered, the picture is cut out in order to prevent any breaking up of the image which occurs when the same video at the top. The information continues and the last logo is displayed in its entirety.



■ The introduction is based on the introduction conference, information image designed a 3D robot, using videotape, whose lip and body movements are synchronized to dubbed narratives.

Live-action footage of an approaching Bess truck is run and then freeze-framed. The animated logo seems to add the robot riding up into full show. The truck image then fades to black, leaving the robot in longer his video speech.

All 25 animation sequences produced by AI are completed in the same way, using compressed files played back at 30-25 frames per second onto videotape. Recorded animation can then be edited together to form longer sequences.



Memory space is always at a premium, but never more so than when fiddling around with graphic images. Extra RAM, second drives and hard drives become increasingly important as more and more computer-generated artwork is employed in the video production.

A digitizer provides a rapid route for the creation of graphics, and can be used as a base for hand-drawn artwork or to provide a source of static photographic-quality material for inclusion in computer sequences. Similarly, a real-time frame grabber can be employed to great effect. It allows you to take images from already prepared videos, store them as

PP files and then re-use or animate them as necessary using a suitable A/I package.

In imposing shopping list, but not totally outside the realm of possibility, especially for a group of friends, or for members of a video workshop (a visit to local information bureaux should yield the location of any facilities in the area). And although the right hardware is a vital necessity, it's not really how much you've got but what you do with it that's important thing is to have at least a clear idea of what the final image is to be. Storyboarding is a good habit to get into, allowing precise pre-planning, choreography and timing

ANIMAGIC
£69.95
PRO-PAGE
1.2
£249.95

PUBLIC DOMAIN DISKS
ONLY £2.50 EACH
PD CATALOGUES - £2.00

VIRUS INFECTION
PROTECTION
The BEST protection your disks
could ever wish for! **£29.95**



3.5" External Drives



From **£89.95**

X - CAD
DESIGNER
£99.95
PROFESSIONAL £299.95

SOUND SAMPLERS
FROM ONLY
£29.95

3.5" DS/DD
Disks
10 for only £9.95

DIGIVIEW GOLD £149.95
HIGH QUALITY
DIGITISING CAMERAS
FROM - £225.95
DIGITISING STAND WITH
LIGHTS - £69.95



(0703)

703030

VIDEO

MOVIE SETTER £69.95
PRO VIDEO PLUS £249
VIDEO EFFECTS 3D £159
PHOTON VIDEO £99.95

NEW!!

SUPERPIC £569.95
A REAL TIME COLOUR VIDEO DIGITISER,
FRAMESTORE AND GENLOCK
68020 TURBO CARD £295

GRAPHICS

DELUXE PAINT III £79.95
DELUXE PAINT ART £9.95
PHOTON PAINT II £79.95
COMIC SETTER £69.95
DESIGN 3D £79.95

DIGIPRO LTD

Enterprise House, Howards Grove, Southampton SO1 5PR

Locking Disk Boxes
Holds 100 Disks
£7.99

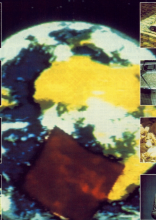
FANTAVISION
SPECIAL £29.95

A500 CONSOLES
ONLY - £39.95



All Prices INCLUDE V.A.T.
Orders over £50.00 Postage and Packing FREE!
All other orders add £1.00 for Postage and packing
For prices outside UK please telephone





It selects sequences from a Walker College training video shows, from images from different sources and overall sources.

To represent some other unknown appearing in the product line, a 3D object created in Wireframe was estimated from nine through seven, a 3D Poly

The object falls toward Earth more (2) **fast** orbits - and goes on by spinning satellite to apparent images of Earth's surface from space every 90 min.

As you enter the atmosphere, it gets all 20 jets the wind is strong. Wind direction, while the subject conditions, reach the subject and

These findings of the present study have shown a background like the

A piece of paper is lifted off the computer belt, and we cut to the computer who stands against a Wallows tape, which is faded and unrecognizable. It's a faded and unrecognizable image of a person's face, which is faded and unrecognizable.

to be defined before and during production of the sequence. The careful planning of patterns can also avoid any problems which might arise when dealing with lines of different colours.

[illegible]

The images reproduced on these pages are all taken from videos produced by Alternative Images. This Leicester-based company first appeared in 1986 as a visual production unit with the intention of creating visual media for social purposes as well as industrial and community projects. Their work encompasses all manner of presentations, including video productions and audiovisual slides.

shows, handling graphic design, photography and even looking after some of the sound work.

These ideas, with the Amiga, started from the need for a cheap caption generator. For little extra outlay, the Amiga was seen as

flexible and viable alternative to any specific hardware, also doing what an entry-level computer generated graphics system. At \$2000 it was purchased at the end of 1993, which currently boasts 4.5 megs RAM, a 20-meg hard drive and two floppies. It also includes a turbo board composed of a 586/25 processor with 58801 math coprocessor, 58850 memory management chip and 2 megs of 32-bit dynamic RAM; generally, most users prefer an 80486.

The most recent addition to the studio is a Polaroid Palette which outputs RT film directly into 35mm colour transparency film, producing very-high-quality screen shots. This now enables them to

run a business service for the cost-effective production of slides for presentations, promotions, etc.

Abstract

Alternative ways are fortunate enough to have professional-quality equipment placed at their disposal. However, most of the effects described here could, with some effort, be replicated using an amateur setup, with only a minor reduction in quality.

Alongside an impressive array of equipment, the M crew employs a large library of art packages to create specific effects. Of these, there are a few which get used more than most: used primarily to create fire, the team has for the



■ **Thanks to:** Alternative Image who own Stuart Welling, Mike Warden, Kathy Day (P. Moore), Dave Brown, Simon Phillips and Stuart Hall.

CLUB 68000

Suite 1, Wickham House, 2 Upper Teddington Road,
Hampton Wick, Kingston-on-Thames
Surrey KT1 4QP Tel: 01-877-8396

DO YOU OWN AN AMIGA COMPUTER?

For everyone who owns one of these computers, CLUB68000 offers members software, hardware and accessories at huge savings off recommended retail prices! Each item has been carefully chosen to offer the best value and quality.

HERE'S WHAT YOU GET:

When you join you will receive a free games compendium and a free catalogue every 3 months

AMIGA TOP 100 GAMES

Game	Number	Price
Amiga	1	£1.95
Amiga 2	2	£1.95
Amiga 3	3	£1.95
Amiga 4	4	£1.95
Amiga 5	5	£1.95
Amiga 6	6	£1.95
Amiga 7	7	£1.95
Amiga 8	8	£1.95
Amiga 9	9	£1.95
Amiga 10	10	£1.95
Amiga 11	11	£1.95
Amiga 12	12	£1.95
Amiga 13	13	£1.95
Amiga 14	14	£1.95
Amiga 15	15	£1.95
Amiga 16	16	£1.95
Amiga 17	17	£1.95
Amiga 18	18	£1.95
Amiga 19	19	£1.95
Amiga 20	20	£1.95
Amiga 21	21	£1.95
Amiga 22	22	£1.95
Amiga 23	23	£1.95
Amiga 24	24	£1.95
Amiga 25	25	£1.95
Amiga 26	26	£1.95
Amiga 27	27	£1.95
Amiga 28	28	£1.95
Amiga 29	29	£1.95
Amiga 30	30	£1.95
Amiga 31	31	£1.95
Amiga 32	32	£1.95
Amiga 33	33	£1.95
Amiga 34	34	£1.95
Amiga 35	35	£1.95
Amiga 36	36	£1.95
Amiga 37	37	£1.95
Amiga 38	38	£1.95
Amiga 39	39	£1.95
Amiga 40	40	£1.95
Amiga 41	41	£1.95
Amiga 42	42	£1.95
Amiga 43	43	£1.95
Amiga 44	44	£1.95
Amiga 45	45	£1.95
Amiga 46	46	£1.95
Amiga 47	47	£1.95
Amiga 48	48	£1.95
Amiga 49	49	£1.95
Amiga 50	50	£1.95

Game	Number	Price
Amiga 51	51	£1.95
Amiga 52	52	£1.95
Amiga 53	53	£1.95
Amiga 54	54	£1.95
Amiga 55	55	£1.95
Amiga 56	56	£1.95
Amiga 57	57	£1.95
Amiga 58	58	£1.95
Amiga 59	59	£1.95
Amiga 60	60	£1.95
Amiga 61	61	£1.95
Amiga 62	62	£1.95
Amiga 63	63	£1.95
Amiga 64	64	£1.95
Amiga 65	65	£1.95
Amiga 66	66	£1.95
Amiga 67	67	£1.95
Amiga 68	68	£1.95
Amiga 69	69	£1.95
Amiga 70	70	£1.95
Amiga 71	71	£1.95
Amiga 72	72	£1.95
Amiga 73	73	£1.95
Amiga 74	74	£1.95
Amiga 75	75	£1.95
Amiga 76	76	£1.95
Amiga 77	77	£1.95
Amiga 78	78	£1.95
Amiga 79	79	£1.95
Amiga 80	80	£1.95
Amiga 81	81	£1.95
Amiga 82	82	£1.95
Amiga 83	83	£1.95
Amiga 84	84	£1.95
Amiga 85	85	£1.95
Amiga 86	86	£1.95
Amiga 87	87	£1.95
Amiga 88	88	£1.95
Amiga 89	89	£1.95
Amiga 90	90	£1.95
Amiga 91	91	£1.95
Amiga 92	92	£1.95
Amiga 93	93	£1.95
Amiga 94	94	£1.95
Amiga 95	95	£1.95
Amiga 96	96	£1.95
Amiga 97	97	£1.95
Amiga 98	98	£1.95
Amiga 99	99	£1.95
Amiga 100	100	£1.95

Game	Number	Price
Amiga 101	101	£1.95
Amiga 102	102	£1.95
Amiga 103	103	£1.95
Amiga 104	104	£1.95
Amiga 105	105	£1.95
Amiga 106	106	£1.95
Amiga 107	107	£1.95
Amiga 108	108	£1.95
Amiga 109	109	£1.95
Amiga 110	110	£1.95
Amiga 111	111	£1.95
Amiga 112	112	£1.95
Amiga 113	113	£1.95
Amiga 114	114	£1.95
Amiga 115	115	£1.95
Amiga 116	116	£1.95
Amiga 117	117	£1.95
Amiga 118	118	£1.95
Amiga 119	119	£1.95
Amiga 120	120	£1.95
Amiga 121	121	£1.95
Amiga 122	122	£1.95
Amiga 123	123	£1.95
Amiga 124	124	£1.95
Amiga 125	125	£1.95
Amiga 126	126	£1.95
Amiga 127	127	£1.95
Amiga 128	128	£1.95
Amiga 129	129	£1.95
Amiga 130	130	£1.95
Amiga 131	131	£1.95
Amiga 132	132	£1.95
Amiga 133	133	£1.95
Amiga 134	134	£1.95
Amiga 135	135	£1.95
Amiga 136	136	£1.95
Amiga 137	137	£1.95
Amiga 138	138	£1.95
Amiga 139	139	£1.95
Amiga 140	140	£1.95
Amiga 141	141	£1.95
Amiga 142	142	£1.95
Amiga 143	143	£1.95
Amiga 144	144	£1.95
Amiga 145	145	£1.95
Amiga 146	146	£1.95
Amiga 147	147	£1.95
Amiga 148	148	£1.95
Amiga 149	149	£1.95
Amiga 150	150	£1.95

Game	Number	Price
Amiga 151	151	£1.95
Amiga 152	152	£1.95
Amiga 153	153	£1.95
Amiga 154	154	£1.95
Amiga 155	155	£1.95
Amiga 156	156	£1.95
Amiga 157	157	£1.95
Amiga 158	158	£1.95
Amiga 159	159	£1.95
Amiga 160	160	£1.95
Amiga 161	161	£1.95
Amiga 162	162	£1.95
Amiga 163	163	£1.95
Amiga 164	164	£1.95
Amiga 165	165	£1.95
Amiga 166	166	£1.95
Amiga 167	167	£1.95
Amiga 168	168	£1.95
Amiga 169	169	£1.95
Amiga 170	170	£1.95
Amiga 171	171	£1.95
Amiga 172	172	£1.95
Amiga 173	173	£1.95
Amiga 174	174	£1.95
Amiga 175	175	£1.95
Amiga 176	176	£1.95
Amiga 177	177	£1.95
Amiga 178	178	£1.95
Amiga 179	179	£1.95
Amiga 180	180	£1.95
Amiga 181	181	£1.95
Amiga 182	182	£1.95
Amiga 183	183	£1.95
Amiga 184	184	£1.95
Amiga 185	185	£1.95
Amiga 186	186	£1.95
Amiga 187	187	£1.95
Amiga 188	188	£1.95
Amiga 189	189	£1.95
Amiga 190	190	£1.95
Amiga 191	191	£1.95
Amiga 192	192	£1.95
Amiga 193	193	£1.95
Amiga 194	194	£1.95
Amiga 195	195	£1.95
Amiga 196	196	£1.95
Amiga 197	197	£1.95
Amiga 198	198	£1.95
Amiga 199	199	£1.95
Amiga 200	200	£1.95

AMIGA PROFESSIONAL SOFTWARE

Game	Number	Price
Amiga 201	201	£1.95
Amiga 202	202	£1.95
Amiga 203	203	£1.95
Amiga 204	204	£1.95
Amiga 205	205	£1.95
Amiga 206	206	£1.95
Amiga 207	207	£1.95
Amiga 208	208	£1.95
Amiga 209	209	£1.95
Amiga 210	210	£1.95
Amiga 211	211	£1.95
Amiga 212	212	£1.95
Amiga 213	213	£1.95
Amiga 214	214	£1.95
Amiga 215	215	£1.95
Amiga 216	216	£1.95
Amiga 217	217	£1.95
Amiga 218	218	£1.95
Amiga 219	219	£1.95
Amiga 220	220	£1.95
Amiga 221	221	£1.95
Amiga 222	222	£1.95
Amiga 223	223	£1.95
Amiga 224	224	£1.95
Amiga 225	225	£1.95
Amiga 226	226	£1.95
Amiga 227	227	£1.95
Amiga 228	228	£1.95
Amiga 229	229	£1.95
Amiga 230	230	£1.95
Amiga 231	231	£1.95
Amiga 232	232	£1.95
Amiga 233	233	£1.95
Amiga 234	234	£1.95
Amiga 235	235	£1.95
Amiga 236	236	£1.95
Amiga 237	237	£1.95
Amiga 238	238	£1.95
Amiga 239	239	£1.95
Amiga 240	240	£1.95
Amiga 241	241	£1.95
Amiga 242	242	£1.95
Amiga 243	243	£1.95
Amiga 244	244	£1.95
Amiga 245	245	£1.95
Amiga 246	246	£1.95
Amiga 247	247	£1.95
Amiga 248	248	£1.95
Amiga 249	249	£1.95
Amiga 250	250	£1.95

Game	Number	Price
Amiga 251	251	£1.95
Amiga 252	252	£1.95
Amiga 253	253	£1.95
Amiga 254	254	£1.95
Amiga 255	255	£1.95
Amiga 256	256	£1.95
Amiga 257	257	£1.95
Amiga 258	258	£1.95
Amiga 259	259	£1.95
Amiga 260	260	£1.95
Amiga 261	261	£1.95
Amiga 262	262	£1.95
Amiga 263	263	£1.95
Amiga 264	264	£1.95
Amiga 265	265	£1.95
Amiga 266	266	£1.95
Amiga 267	267	£1.95
Amiga 268	268	£1.95
Amiga 269	269	£1.95
Amiga 270	270	£1.95
Amiga 271	271	£1.95
Amiga 272	272	£1.95
Amiga 273	273	£1.95
Amiga 274	274	£1.95
Amiga 275	275	£1.95
Amiga 276	276	£1.95
Amiga 277	277	£1.95
Amiga 278	278	£1.95
Amiga 279	279	£1.95
Amiga 280	280	£1.95
Amiga 281	281	£1.95
Amiga 282	282	£1.95
Amiga 283	283	£1.95
Amiga 284	284	£1.95
Amiga 285	285	£1.95
Amiga 286	286	£1.95
Amiga 287	287	£1.95
Amiga 288	288	£1.95
Amiga 289	289	£1.95
Amiga 290	290	£1.95
Amiga 291	291	£1.95
Amiga 292	292	£1.95
Amiga 293	293	£1.95
Amiga 294	294	£1.95
Amiga 295	295	£1.95
Amiga 296	296	£1.95
Amiga 297	297	£1.95
Amiga 298	298	£1.95
Amiga 299	299	£1.95
Amiga 300	300	£1.95

Game	Number	Price
Amiga 301	301	£1.95
Amiga 302	302	£1.95
Amiga 303	303	£1.95
Amiga 304	304	£1.95
Amiga 305	305	£1.95
Amiga 306	306	£1.95
Amiga 307	307	£1.95
Amiga 308	308	£1.95
Amiga 309	309	£1.95
Amiga 310	310	£1.95
Amiga 311	311	£1.95
Amiga 312	312	£1.95
Amiga 313	313	£1.95
Amiga 314	314	£1.95
Amiga 315	315	£1.95
Amiga 316	316	£1.95
Amiga 317	317	£1.95
Amiga 318	318	£1.95
Amiga 319	319	£1.95
Amiga 320	320	£1.95
Amiga 321	321	£1.95
Amiga 322	322	£1.95
Amiga 323	323	£1.95
Amiga 324	324	£1.95
Amiga 325	325	£1.95
Amiga 326	326	£1.95
Amiga 327	327	£1.95
Amiga 328	328	£1.95
Amiga 329	329	£1.95
Amiga 330	330	£1.95
Amiga 331	331	£1.95
Amiga 332	332	£1.95
Amiga 333	333	£1.95
Amiga 334	334	£1.95
Amiga 335	335	£1.95

THE AMIGA SPECIALIST

HARD DISK AMIGA A500/A1000/A2000

20 MBYTE HARD DISK	£369.00
40 MBYTE HARD DISK	£489.00
60 MBYTE HARD DISK	£649.00

(state model, supplied with software)

MIDI INTERFACE AMIGA

-For A500/A1000/A2000 (state model)

-Midi in, midi out, midi thru

-Cables and software inc.....**£24.95**

1 COPY£19.95

No.1 copy program - parameter copy
Backup commercial software - update
service.

HARD PLASTIC DUST COVERS

A500/A1000/A2000	£7.99
Mousepads (top quality)	£4.99
Diskbox 3.5" (80) with lock	£7.99
Diskbox 5.25" (100) with lock	£7.99
White Label 3.5" DSDD (10) disks	£7.99
Printer Cable (top quality)	£4.99
Scart Cable (top quality)	£9.99

AMIGA DISK DRIVES

3.5" EXTERNAL DISK DRIVE	£75.00
DS/DD SLIMLINE DRIVE	
WITH TRACK DISPLAY	£89.95
5.25" EXTERNAL DISK DRIVE	
40/80 TRACKS IBM	
COMPATIBLE	£89.95
WITH TRACK DISPLAY	£104.95
3.5" INTERNAL DISK DRIVE	
A2000	£69.95

**ALL DRIVES ON/OFF SWITCH
AND THROUGH PORT**

AMIGA SUPER CARD

NEW!!!

£99.95

- Kickstart 1.3
- Anti Virus
- Floppy Speeder
- Boot Drive Selector
- Copy Program
- Functions under F-Keys
- Mouse Driven
- Error Messages
- Shortened Reset
- Extra Utilities

GENLOCK A500 MINIGEN

£99.95

- PROFESSIONAL GENLOCK A500

- Low cost, enabling you to merge computer graphics with live video & record the results on a VCR.

RENDALE

GENLOCK A500

£199.95

GENLOCK A2000

£199.95

NEW - VIRUS PROTECTOR

- Hardware and software
- Place hardware between external drive and computer
- Protects internal and external drives
- Always present after warm reboot
- Gives alarm signal if a virus is found.
- Protects against 16 viruses**£24.95**

RAM EXPANSIONS

SPECIAL OFFER

A500 512K £89.95

While stocks last

- upgrade to 1 mbyte, fitted in seconds
- with clock, battery operated to retain time/date

A500 1.0 MByte (512K Ram) £149.95

- Board to add 1.8Mb internal memory to your A500

-with Ram 1.8 MByte £399.00

A500/A1000 2MByte £425.00

- 2Mb ram expansion A500/A1000

- simply plugs into expansion port

A2000 2 MByte £449.00

- 8 Mb board, 2Mb Ram

Digiview Gold Video Digitiser £95.00

A1000 Kickstart 1.3 + Clock £149.95

Eprom Programmer £99.95

Boot Selector (Boot from DF1) £9.99

THE ALTERNATIVE HARDWARE

[illegible][illegible]

SPECIAL REPORT:
INFLATION - As the
 times improve, the
 cost of living seems
 under control. In the
 United and continental
 states, variable rates
 and other factors,
 there are still and still
 are going high rates.
 In fact, and are different

The company is a 100% stock owned, non-union, employee owned company. For more info, visit www.vision-llc.com.



EDITORIAL COMMENT, JUNE 9, 1998
Young BRASS has argued where
industrial providers find
control of the system
is critical. Unfortunately, the
dominant equation is a
technology and data issue.

[illegible]

It now plans to
expand into
the United States
and Europe.
The company
plans to build
a new plant in
the United States
and Europe.

THE CHANGES, THIS MORNING (JOURNAL) FOR
REY - Formerly a digital news agency and
Brazilian. That agency would single
out for his closed, unscrutinized and un-
checked, or less covered to be continued in a
series of complex ways, using photos for
culture, economics, politics, religion, sports and
other. Portuguese have produced a book



recovered \$1,000,000 worth, Hedges' company is a professional single-channel video theory (see also a number of crash time frames) syndicates available that the Hedges' work are the high quality, Hedges' video camera in all first and (second) a (200) Hedges' video and (third) a (200) Hedges' video.

golfing, process, and also for producing background pictures of re-touching digitized images, is **Defuse Paint III**. The arrival of **Defuse Paint III** LPSD now facilitates the inclusion of simple and complex-oriented animation.

TV Shower (1.1) does give functions easily using an editable script file to create synchronized sequences. Anyone wanting to include Amiga-generated sounds should look at *Amiga Lights, Camera, Action*. TV Shower can also make single interrupted images around, although this feature has now been superseded to some extent by *Colour Paint II*.

Amiga Write-Off (100) users Amiga fonts in any resolution and comes with four stretchable fonts, which can be scaled, compressed or condensed and still retain their true outline. It also features a variety of edge transitions and captioning effects, and can animate titles easily, creating .amr files like Multisave does.

Version 2.0 of **Visi-mac** 3D (\$295) is used in preference to **Scalzi 3D** due to the speed of rendering. However, with the advent of **Scalzi 4D** (\$295) including a 68020-compatible version of the program, it now allows to produce full ray-traced animations with shadows and reflections. **Scalzi 4D Junior** is about to be released at around £100 as a cut-down version without the ray-tracing facilities.

Finally, the **Pixelate Image** **Processor** (4.4) is used to analyze pictures and return them to suit. For instance, a full image can be reduced to 32 colours and exported to 32-bit, while retaining the visual integrity of the image. **PPF** is also used to clean up pictures, denoise them, produce edge effects, and even compress or stretch the image. Filters can also be customized, in a fashion analogous to a graphic routine for colours. ■

CONTACT NO:

For anyone wanting more information on the desktop video game - hardware and software - the following websites should yield some useful information:

[illegible]

DOI: 10.1002/for

[illegible]

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

© 2004 Blackwell Publishing Ltd *Journal of Internal Medicine* 255: 105–112



Honorable: Informal honorific expression predicated on the prevailing company name. *Howdy, Honorable!* is equivalent to *Hi, Honorable!* *Honorable* may refer to a member of staff, or a customer. *Honorable* may also



The background music is a variety of tapes, discolors and other visual (fuzzy) patterns.



sonic, that the entire
little submersible wouldn't
be played back, read
faster than the memory
recording device. The executive
Walt, wasn't happy with
the results.



against player footage, mostly photographed in avoid glitches when applied together. It was the late 1970s when computer graphics were developed. The Western is a genre that

■ **400** is allocated to samples in a **SEUCK** game, which allows a few old bits of music to be sequenced to the action. The Sound Editor cannot control, however, when you're middle with the rate at which a sample will be played back, so the same effect can be used in different places within a game and yet sound completely different. **Random** (like **W** in **SEUCK**, for instance, and you'll find that one) can be used for those bits you'd never realize this was the time for just playing the game. For continuous noise, effects can be looped the time in **Sound** or **Effects** driven across the screen accompanied by two-layered effects.

The Sound Editor control screen allows a designer to toggle around with a sample that has been assigned a sound effect number, allowing the volume and sample rate of which it will be played, and controlling the effect of adjustments by clicking on the **EFFECT** button.



■ **Push** event, static or continuous script can be applied to the background of a game created in **SEUCK**, or you can combine all three together in different levels of the same production. Apply some of the sound or random thinking, and it's possible to come up with a game like **Pyro's Blast**, which is quite different from any traditional shoot 'em up game.

■ **A few words of explanation.** The player - the good destroy-the-evil - is confined to the central square in the play area and can shoot a single missile with a grid of the five buttons. Destroyed objects remain near the action and they cannot fly off the player until they are at least at the level that has caused them to die, when the action moves to the next level.



■ **A little about thinking** allows you to create extra effects by doing more than assign values to objects events, like buttons being fired, objects being picked up and so on. They are even invisible objects can be assigned a sound and movement for additional effects. In **Blind** or **Blind**, for instance, a key object that moves with a line of random objects off buttons which move the effect "move" triggered to them. In as this way of creating objects, the designer can create the random, then, the computer simply appears to be shooting "them" at regular intervals.



SHOOT IT YOURSELF

GRAEME KIDD finds that the easy way to be a Games Designer is to do it yourself with Palace's Shoot 'Em Up Construction Kit...

According to the original Palace masterplan, Amiga Shoot 'Em Up Construction Kit should have been released about six months ago, but it's only just appearing in the shops now. So why the delay? SEUCK has effectively been rewritten, thanks Palace supervisor Peter Stone. "Lots of little changes have been made, but they are all important ones. We're releasing a product which has been revamped."

SEUCK originally appeared on the Commodore 64 a couple of years ago. The Sensible Software guys, Chris Yates and Jon Hare, were working on Mutual using a

number of sprite and background utilities that Chris had written. They were taking over a few game plans with Palace when the idea of producing a construction kit based on the utilities came up, and a few months later SEUCK was launched to an appreciative audience.

Last year, work began on an Amiga conversion with Richard Leadbitter in charge of the project. "In a seven month" work followed which resulted in the early version seen by magazines around Christmas. Then Sensible's Jon Hare was called in to use Amiga SEUCK to write a trio of games that would accompany the final

others who
to make
bullet
being
to be
the
a way
the
of
bullet
moving
moving
the
bullet's
out of



■ Building the Number 4 sprite in the editor. The three-digit counter on the top left of the game screen will constantly increment from a value of 0 to 999. The digits in 0 to 9 are stored together in an array object and copied twice to give three identical objects. The three enemy object counters were then divided at differently different points and placed in position on the background as static enemy objects to give a digital readout that gives all the appearance of documenting in real time.

■ Enemy objects, or alien invaders as the player is concerned, can be moved together by changing the same digit path to them, thus creating a wave of behavior about the three levels from ship to floor. Finally, the objects must together and composite sprites like the alien-robot designs in figure three may easily be created.



■ Sprites plus, a white highlight system around the pixels of the player's data. Close examination of the Psycho Blast Player One Object in MAME reveals that the animation sequence for the opening white data was a sixteen animation frames (1-16), only eight of which cycle the white pixel; intermediate frames make a highlight on the data on the ship, adding to the effect. An interesting note: apparently, complicated animation has been built up from simple building blocks in the sprite editor; the basic data has been drawn, copied lots of times and then the copied material slightly shifted to form the final sixteen frames of animation.



■ In this screen, the attributes of the enemy objects can be edited, allowing that characteristics like speed and sound are independent.

perhaps, and suddenly things began to make. "I needed someone to write a game so I had to do it myself. I began to get the feel back I needed when I started on the project," Richard explains. As was to be done in Richard's mind, with suggestions for details to make the software more colorful and more user-friendly.

At the same time, musician Richard Joseph was working on sounds for the three games. As was writing as well as building a library of samples to accompany the finished package. (Latter-day floppy disk musical suggestions on board as well, and as a result

the final SDOX will come with three sound discs, each containing 25 files, and you can now load in any 16 sound samples. Richard created all the vocal effects himself, and everything else was collected from a tape library of Pinewood. "I hope that people will organize themselves," he explains, "and start collecting their own sounds, swapping sample disks and so on."

Three example games accompany the kit: Blood 'n' Bullets, Ship 'n' Sails, and Psycho Blast. SDOX is completely unique and psycho down, and while the temptation may be to dive straight in

and start knocking up a game, to get the most out of the package you'll need to give the manual a close read and plan your game before starting work. Lateral thinking is the key to producing good SDOX software.

SDOX is a versatile utility, capable of producing games that are much more than vertically-scrolling shoot'em-ups; for example game Psycho Blast would provide you understand fully how the package works and can think laterally. It would be quite possible to do a Pac-Man-style game, so long as you remembered to make the paper a

bullet and had the interface as an enemy with a killing routine as the explosion when the enemy takes a hit. The best way to start, according to Joe here, is to load in one of the example games, play for a while, then start taking it to pieces in SDOX, messing with the parameters. Experiment to your heart's content; you'll soon get a feel for the possibilities...

SDOX will cost around £29.95 and contain three disks: the Master Disk, which is the floppy, the Sound Disk which contains the sample library, and a compatible disk containing all the files needed to run a stand-alone game design.

SUBSCRIBE

NOW TO AMIGA FORMAT

YOUR MAGAZINE DEDICATED TO YOUR MACHINE

Only £29.95 for 12 action-packed issues, a saving of £5.00 from the cover price (and we even pay the postage for you!)

Ring 0456 74011 NOW, quoting the order code AM100 and having your credit card handy or use the order form on Page 112. Why not order some of the latest and cheapest products from The16 Bits at the same time!

Remember our unique guarantee: we will refund the cost of all unmailed issues, if you are not completely satisfied with our subscription service.

- Hotline Number 0456 74011
- Order Form on Page 112
- Be sure you get your copy before the newsgroup sets out
- Get our regular quarterly "UPDATE" of extra-special savings on products that we didn't quite manage to squeeze in the magazine!

THE COMPLETE PACKAGE FOR CONNOISSEUR AMIGA GEEKS!

AMIGA

FORMAT

UNLEASH
THE POWER

HOW YOUR OWN TRANSDUCER YOUR IMAGE

BOOK OF PROGRAMS:
NEW ZEALAND STORY

PLAYABLE DEMO OF THE AMIGA SEARCH

PLUS: ART GALLERY • UTILITY •
WORKBENCH HACKS • REMASTER DEMO

14 PAGES OF GAMES | MAC EMULATOR | WIN A £5,000 CASH-UP

ONLY

£29.95

FOR 12 ACTION-PACKED ISSUES



Journal of the American Statistical Association

INTERNATIONAL JOURNAL OF RECENT RESEARCHES



FUTURE SOUND 500

Listen up! *RACHEL DECKARD* goes for the phones and jacks into the best Amiga sound sampler around.

FutureSound provides everything you need to get started. For righty good you get a hardware unit with left and right RCA phono jack inputs, 3.5mm mic input and recording level control slider, a disk containing the main controller software program, pre-recorded sound sampled examples and routines in "C" and BASIC showing you how to use the sound samples in your own programs; a 44-page manual covering all the package's features; and a registration card. What you don't get is the funds to connect your sound source to FutureSound, so that'll set you back approximately £3 more.

DOCTORING THE MOUSE

Getting started couldn't be simpler. You connect the hardware unit to the parallel port on the Amiga, hook up your Walkman or CD player to the phono socket or sockets (depending on whether you want mono or stereo samples) and load up the sampler software.

Once the software's running, you control everything with the mouse, just clicking on the function you want to ac-



■ The FutureSound 500 software in action: this is what the sample looks like.

vise. With the software you can listen to any incoming sounds, record and play back a sample, alter the rate of playback/record, select mono or stereo recording, switch the high-pass filter on or off, monitor the incoming sound's signal (allows you to adjust to just the right recording level), magnify the sound sample's graph, select one of the four possible Amiga sound channels, select either chip or fast RAM if you've got extra RAM you can have bigger samples, edit your sample using standard cut and paste commands, and load and save your samples.

BOUNCE ALL RIGHT TO US

FutureSound is a sound sampler's delight. From the sturdy hardware to the efficient software, everything you need is on hand. As far as the hardware's concerned, we haven't seen anything better on the market. We tested it out with other sound sampling software and discovered it worked better than the original hardware every time. Noise disruption is kept to a minimum, and the on-board recording-level control is a real solid gold bonus.

As far as software is concerned, FutureSound provides most of the facilities you could wish from this type of package, with no fobs, whatsoever. Although its featured looks primitive, it's just translated into every function being easily accessible and instantly

executed. We've used better sampling software before, but if this bothers you too much you'll probably be able to use your old sampling software with FutureSound's hardware, thus having the best of both worlds.

The manual is on easy read, although it may confuse the complete novice at first. Bad marks for not including an index, but this can be forgiven in the light of it being only 44 pages long.

In conclusion, we can recommend FutureSound without any hesitation to anybody wanting to experience Amiga sampled-sound making at first hand. This is the best sound sampler package on the Amiga, and although the software is rather primitive, the hardware is first class. You'll have a great deal of fun. And more than a touch of frustration along the way, and you'll end up with results which can be used in your own programs, in other sound creation or composition packages, or saved to disk, reserved for the next time you need to manufacture a bit more.

FUTURE SOUND 500

£79.95 ■ Amiga 500/500H
■ Special adapter cable
required for £1000,
Applied Vision's (AVS) Arany
Supreme Works, £28-500
Whispered Road, Oxford,
Oxford, OX2 1QD

SOUND SENSE

We all know just how brilliant the Amiga's sound chip is, and that it's capable of producing like-like sounds. From the latest demo-musicals to your friend's guitar explosion, you'll come across these real-life sampled sounds. So how can you get in on the action? It's easy all you need is some hardware, software and an ordinary sound source such as a Walkman or CD player... and you'll have to mixing, recording, sampling, editing and playing with the best of 'em.

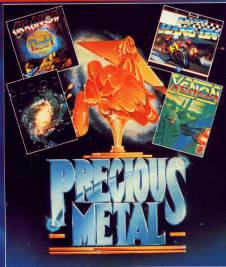
SOUND IT OUT

Do you think you know your stuff, eh? Well here is a run-down of the features of FutureSound 500.

- FutureSound is an 8-bit sound sampler, utilizing the Texas Instruments 5 bit high-speed analogue-to-digital converter.
- FutureSound is capable of recording samples at a maximum rate of 42,710 samples per second in mono. Unfortunately, the Amiga can only output a sampled sound at a rate of 55,000 samples per second.
- The 3.5mm mic input is designed to be used in conjunction with a low-impedance microphone (200-600 ohms), and the phono inputs are able to take a maximum of 2.5 volts peak to peak.
- FutureSound can handle ten types of file format: straight WAV (one shot 811 Octave) or standard style.

• All the operations use the popular AMP (Amiga/MS BasicCommand Project) the requester system.

THE COMPILATION OF EXCELLENCE



VENOM
The most intense, brutal and terrifying of all the games in this compilation. You'll be fighting a vicious, deadly alien in a dark, claustrophobic environment. The game is a real test of your skills and reflexes. It's a real challenge. You'll be fighting a vicious, deadly alien in a dark, claustrophobic environment. The game is a real test of your skills and reflexes. It's a real challenge. You'll be fighting a vicious, deadly alien in a dark, claustrophobic environment. The game is a real test of your skills and reflexes. It's a real challenge.



4 OUTSTANDING
GAMES IN
ONE
SPECIAL PACK

ocean

AMIGA
VENOM, BLOOD, AMIGA ACTION, RACING
ATARI ST

24.99

Ocean Software Limited - 4 Central Street - Manchester - M2 5NS - Telephone: 061 812 8833 - Telex: 669977 OCEANS G - Fax: 061 814 080

Welcome to Screen Play, the most authoritative games review section in any computer magazine. Every month we'll keep you bang up-to-date with the latest games today.

Why is it the definitive guide to Amiga gaming? Well, the magazine is staffed by one of the most experienced teams in games reviewing. Every game is played by at least three people before a conclusion is discussed and decided. We won't judge a game on the strength of any number of demos, commercials, or other opinions. That's for buying the games, you'll be playing them, so we want to make sure that you can buy in confidence.

THE RATINGS EXPLAINED

GRAPHICS

Good graphics are an important part of any game. If the screen is there, it should be used to the full. Both still and moving graphics are under scrutiny, but graphics alone don't make a great game more.

SOUND

With cheap soundblasting the first thing you want to hear are fashionable beeps, right? The tunes and effects add atmosphere to a game and good sound can greatly increase enjoyment of a game.

INTELLECT

Has much had thought do you have to put in to play the game? And because a game's mindless doesn't make it's bad, but a game with a top intellect rating tells you immediately you'll have to think hard to get maximum enjoyment.

ADDICTION

How long is a game to pick up and play? How much does it get you get back at? All you keep coming back? Reported patterns that are observed when you check the keyboarding.

OVERALL

A percentage mark that takes into account all the above ratings, plus all the added value for price, packaging and documentation.

THE TEAM

Andy Smith, who was with ACE right from the start, is a 'hardcore' games fan and one of the most experienced reviewers. He knows any type of game, be it a shoot-out, driving game, arcade adventure...

Bob Wade started reviewing with Personal Computer Games and has worked for Jaguar, Amiga, Action and AOL. There's no one with a better idea of what makes a good game.

SCREEN PLAY

KICK OFF

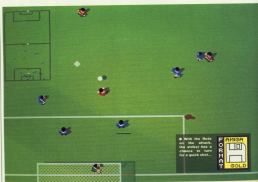
FOOTBALL LIKE NEVER BEFORE



POWERDRONE

KICK OFF

AMCO £19.95 JOYSTICK



MICROPROSE SO

MICROPROSE £24.95 JOYSTICK

It's a funny old game, *Football*, without a football and then two armies at once. None of that management nonsense here either, just chipping around a pitch, tackling, dribbling, shooting, saving and scoring.

Two varieties of the game are included: outdoor British style, the more familiar kind; and indoor skyside (US style, a faster game on a smaller pitch). The pitch is viewed from above and swarms in all directions, with goals situated at top and bottom of the play area.

the real choice to take part in several types of tournament: these range from the full-blown World Cup Finals, via a league or a two-player friendly, to an individual challenge tournament in which the player attempts to beat progressively harder teams. These competitions remain the same for both types of soccer, with two or more players able to take part in all but the challenge.

During the game you control a single player, and switching between team members can be



Goalmouth action in Microprose Soccer: the keeper has the ball.

Evesham Micros

All prices include VAT/delivery

AMIGA ACCESSORIES

AM01 RAM-robot expansion for Amiga 500	£129.00
SuperDisk 2000K adapter	£150.00
Plus 12" 1501 15000000 model 50 1185, inc. Amiga cable	£200.00
Plus 200000 1501 1501 15000000 inc. connector & cable	£200.00
Plus 200000 colour monitor suitable for Amiga 500	£200.00
Plus 200000 monitor as above, but higher resolution	£250.00
Plus TV Tuner 8V7305, use with any computer monitor	£74.99
Plus 1000 1501	£149.99
SuperDisk 2000K	£150.00
SuperDisk 2000K	£150.00
Logically Integrated Speechboard	£74.99
10000 Data Copy	£4.99

A-MAX MACINTOSH EMULATOR

For AMIGA 500/1000/2000. This emulator allows you to run any Macintosh software on your Amiga. It is a true emulator, not just a shell. It runs all Macintosh software, including the latest versions of the Macintosh operating system, and all the software that runs on it. It is a true emulator, not just a shell. It runs all Macintosh software, including the latest versions of the Macintosh operating system, and all the software that runs on it. It is a true emulator, not just a shell. It runs all Macintosh software, including the latest versions of the Macintosh operating system, and all the software that runs on it.

3.5" EXTERNAL DRIVES using Citizen drive mechanisms



- Both Amiga 500 or Amiga 1000
- Top quality Citizen drive mechanism
- On / Off switch on rear of drive
- Throughput connector
- Data megabyte information capacity
- Sleek design
- Easy setup
- Long cable for location after side of computer
- Full 12 months guarantee

Ultra low price!
£74.95
inc. VAT and
delivery

3.5" Disks

10 Disk pack 50000 3.5" disks	
with labels, fully guaranteed	£11.99
25 Disk disks on drums	£21.99
50 disks on drums with plastic case	£41.99
100 disks on drums, with 60 capacity	
variable storage unit	£81.99
Format 50000 3.5" disks, tape quality	
drums, 60000 3.5" disks, 10000 3.5"	



■ Shapes of that floating buddy bear quickly, because if you lose into that balloon on the right he could pose you a few problems.



■ Now you have taken to this balloon and are airborne, follow the green arrows which will lead you towards your ragged friend.



■ With airborne and following the arrows, you're changed to orange your bow and arrow for bombs, which spells trouble for enemies.



■ Once you've ditched the balloon it's just a couple more steps before you can rescue your friend and progress to the next level.

The Japanese have some wacky ideas when it comes to computer take Bubble Bobble, the tale of two bubble-blowing bromsies who that went down a storm in the arcades and converted very successfully to the computer.

Another very wacky idea is to have a little yellow Kiki, complete with white and blue shoes, running around ensuring chains that have been captured and locked is capped by a hat of waxes. Still, it worked in the arcades and now, thanks to Ocean, every Amiga owner has the chance to play this enchanting game at home.

In case you hadn't guessed already, you control the yellow bubble of fluff in this oh-so-cute platform game that's not a million miles away from Bubble Bobble and Super Mario Bros. The action's all viewed in two dimensions, and there are five levels to play through, each level made up of four sub-levels with the fourth sub-level guarded by an evil level nearly that needs destroying before you can progress.

Again as if you'd not guessed, the sub-levels are guarded by a bunch of... well, you can't really call them monsters, because they appear to be teddy bears and usually that contact with them will cause you to lose one of an initial three lives. For self-defence you're armed with a small bow, from which to fire arrows at the bubbles (a bow and arrow? Well, you might have known, really). There are also other weapons, including bombs



and lasers, to be obtained by shooting certain bubbles: most bubbles simply turn into jolly pieces of fruit, which are collected for bonus points. Some bubbles fire back, though, so keep on your toes to dodge their shots.

As well as the bubbles, there are objects in the scenery that can kill you, such as spikes on the floor that must be jumped over. The levels (and sub-levels) get progressively harder and bubbles start creeping in for example, on sub-level five your chain is capped so the right side of the level but there's no obvious way of getting to two, but you realise that with careful timing you can shoot the teddy bear's that float around without popping the balloons they float on, then hop onto an empty balloon and guide it over



THE NEW ZEAL

OCEAN £24.99 JOYSTICK



ated by
this, most
into pure
coloured
in battles
to on your
s.

ies, there
many that
happens an
er jumped
not-levels
order and
ing in for
all those
I on the
level but
this rely
on. (Glad
with Cate-
shoot the
I moved
platform
into an
it over

the top, but the towers can pop your buttons and tumble you towards the ground, so beware!

Another problem is, the time limit: hanging around on a screen too long and a big 'furry up!' notice comes on. Ignore this warning, and a small Time Devil appears and prings you with his robot, fire-removing one of your lives.

New Zealand Story is incredibly cute, and at first you'll think you're far too old to be playing such a game. But you're not. This is an incredibly addictive game, and the difficulty tuning has been set just right, increasing your determination



to survive to the end of each and every level. Double-Game takes a great concept and produced a wonderfully good conversion, which you will no doubt feel yourself booting up time and again.

Andy Smith

GRAPHICS	9
SOUND	9
INTELLECT	3
ADDICTION	9
OVERALL	94%



It kind that someone like me could see you marked your way through.

GRAPHICS AND SOUND

Take big, colourful cartoon sprites that are beautifully drawn and wonderfully animated, add backgrounds that are highly colourful and then play tunes that play throughout, and you end up with a great-looking and great-sounding game that happens to be immensely playable too.



NEW ZEALAND STORY

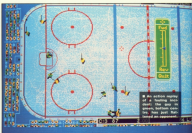
Pride of Canada, biggest name in the world of ice hockey, but still virtually unknown in the UK, that's Wayne Gretzky. In North America he has achieved the sporting goal plates reserved for Ian Botham and Dale Thompson over here.

Like recent soccer games, it's viewed from overhead. The pitch is about two screens wide and scrolls horizontally as the puck moves from end to end, while not visually stunning, this display is functional, because you can always tell exactly what's going on.

As with most American sports games, this one loads statistics. There are whole screens full of information and options, which are useful on the coaching side because you can alter everything from individual players' attributes to the team's front described as preset team line-ups for particular situations: attacking, defending, taking penalties and so on. You can opt to control a player, coach, both or neither. The coach decides which lines to play: the strategic side of the action.

On the ice, you control one player at a time but can switch between any of them except for the goalie. All the rules of ice hockey must be obeyed, so there are penalties for charging, holding, tripping, cross-checking, allowing, high-sticking, hooking, roughing, slashing, spearing and anything else ending in -ing. You can also have fights and instant replays to add even more realism.

Options allow skill levels and playing time to be altered: a match against the professionals is the ultimate challenge, and no rainy proposition. Starting at the most basic level, the game's very easy to play, but has hidden depths of strategy. In larger words, you can tell the ice and simply sit back and enjoy the game,



GRETZKY HOCKEY

BETHESDA SOFTWARES £34.99 MOUSE OR JOYSTICK

but later on there is more satisfaction to be derived from it through gaining experience of switching lines and learning tactics.

In the long term, most reward can be obtained from the process of creating your own team. Each of the teams has ratings for 11 different characteristics, and once the players are defined they can

be arranged into lines of your own choosing. As well as changing lines, the players can be made to execute certain pre-arranged plays to try to gain the upper hand. All in all, the wealth of detail adds depth to an already good sports simulation, making it one of the better ones currently available.

Bob Wade

GRAPHICS	4
SOUND	3
INTELLECT	4
ADDICTION	4
OVERALL	70%

GRAPHICS AND SOUND

There is a very impressive opening sequence in which an animated skater crashes the puck into the screen, accompanied by a splash of glowing stars. After that, sound is limited to crowd noise and goal effects. The rather basic game graphics are well supported by nice presentation screens for the referee's decisions and for fights, but these are not outstandingly fine.

■ The referee indicates a foul for holding.



■ The goalie 'breaks' the puck, so two men square up for a face-off.

FREE DELIVERY

1869

MicroBotics means Amiga™-Power

Whichever Amiga you own—or plan to buy—we have the expansion you need

For the Amiga 2000...

HardFrame/2000

DMA SCSI Interface

If your application calls for super-speed uninterrupted access to your hard disk, HardFrame/2000 is your answer. This is a high-end, no holds barred SCSI interface that operates at bus speeds of one Mbyte/sec/2500 can support up to seven devices, word-length data transfer, FIFO buffering, TRUE DMA, mounted on a metal frame suitable for all standard 3.5" SCSI drives (or, if you prefer, connected to a bay mounted or external disk). Available now.

Suggested List Price: £219.95

8-UP! FastRAM

Maximum Memory in One Slot!

The FastRAM card that every Amiga owner will eventually come to - why limit yourself to only two megabytes per slot? 8-UP will take you all the way to the top of the auto-configuration memory space of EIGHT MEGABYTES! 8-UP! is available in two versions, the standard DIP model accepts 2.5V or 3 megabytes of 1 meg DRAMS. For maximum flexibility there is the SIMM version which lets you custom configure with mixed 256k and 1 meg SIMM modules, including MicroBotics' exclusive PopSIMMs. 8-UP! is a power-efficient, zero wait state, autoconfiguring design. The latest and greatest (Amiga World, Jan. 1989). 8-UP! is available now.

Suggested List Price: £124.95

MouseTime

The easiest to use, most cost-effective implementation of a battery backed port for the A1000. Passes the port through for joysticks or other devices. Complete with WorkBench software. Available now.

Suggested List Price: £22.95

For the Amiga 500...

M501 Memory + Clock

Half a Meg at a Great Price!

As we are all coming to realise, a one megabyte Amiga (at least) is a necessity not an option. When you add the M501 512k memory and clock module to your A500 make sure it's a MicroBotics M501. Note that just like the Commodore and unlike some third party expansions, we use a long-lived rechargeable NiCd battery - which you'll never have to replace. Set the MicroBotics clock using the same WorkBench software as you would use for the Commodore clock. What's the difference? You get to keep £25 compared to the Commodore version. The M501 is available now.

Suggested List Price: £124.95

StarBoard2/500

Two Mega PLUS a Choice of Modules.

The premier memory expansion for the A1000 is now available on the A500. In its own case with an independent power supply strong enough to handle StarBoard2 and a second A1000 style StarBoard2, all the power and flexibility of this great expansion device is available to you. Up to 2 megabytes of autoconfiguring, zero-wait-state FastRAM, Multifunction or SCSI module capability for math chip or fast SCSI hard disk interfacing. StarBoard2 also has an LED diagnostic/confirmation light to indicate the power-up state of your Amiga and expansion. An A1000 style StarBoard2 can be connected to the bus pass-up for a total of FOUR mega and two modules. The best ... (Amiga World, Jan. 89).

Suggested List Price: £224.95



For the Amiga 1000...

StarBoard2

The Expansion of Choice

The superb memory expander for the Amiga 1000, still going strong! Up to 2 megabytes of autoconfiguring, zero wait state, FastRAM in a sleek, all steel Amiga coloured case plus the capability to accept either of the two daughter-board modules, the original MultiFunction Module or the new SCSI Module. StarBoard2 is powered by the bus (up to two StarBoard2's can be supported by the A1000) and passes it on.

Suggested List Price: £224.95

Multifunction Module

High Tech at Low Cost

This daughterboard installation on StarBoard2, it features a socket and software for the 68001 Math chip as an I/O device (MicroBotics pioneered this approach on the Amiga, now directly supported in its math libraries of AmigaDOS 1.31). StickyDisk gives you the most bullet-proof removable RAM disk - its hardware protection turns it into a write state, superfast disk. Parity checking of StarBoard2 RAM can be enabled when extra parity ram is installed. Finally, the Multifunction Module carries an easy to use battery-backed clock to set the system time on startup.

Suggested List Price: £85

StarDrive SCSI Module

Fast, Low Cost SCSI Module

When installed in any model StarBoard2, StarDrive offers you cost effective, peer-to-peer DMA access to SCSI hard drives and other devices. Fast, easy to install (including driver software and disk diagnostics). StarDrive also includes a battery backed clock to set system time on startup.

Suggested List Price: £85

All prices include VAT with the exception of M501 Units which are for unpopulated Boards

Tell your dealer he can order direct - no minimum quantity - show him this ad!

In Europe: Oasis Services Ltd., 17 Andrews Place, London SE9 2BL. TEL: (01) 833 4938

In U.S.A.: MicroBotics, Inc., 8111 Alpha Drive, Richardson TX 76081. TEL: (214) 437 5330

Draft, problems, famine and other nasty things have stricken the crozier lands, and it seems that only Astoria can save the province from complete despair.

Only problem is, Astoria opted out of the cal-race some time ago. He now lives alone atop a mountain and he's more keen to receive visitors, so the first task is to guide a party of two to their abode.

The screen is divided into two main sections: the top left is given over to small pictures of the various locations, the top right is where all text messages and general location descriptions appear and the bottom part of the screen is where you select various keywords that advance the adventure.

The keywords offered for selection depend on the characters in the party, their current situation they might be in the middle of a battle, or preparing to camp for the night, or indeed and the location. So playing the game is



The Party	
George	1-2
Cyril	1-3
John	1-4
Robbie	1-5
Sam	1-6

language are not my specialty. But the pages are beautiful, and find out a hidden room of these words, this first time. "Here," points a sign, and this second time, "here," points to the plains."

"The gate to the plains," I said, putting two and two together. "But from where?"

"That is a simple question," Frodo replied. "A more interesting one would be 'how shall we get it to open?'"

"Be better still. 'What do we do now?'" snarled Eowyn at, to everyone's surprise, a round gate appeared, yawning wide before us.

Individual Commands			
Enter	Examine	Get	Get Legend
Give	Inventory	Go	

When you're on a Journey, even the most unimpressive rock can open up new opportunities. If the party should wish to enter the door, the enter keypress must be selected in the bottom left-hand corner.

JOURNEY

INFOCOM/ACTIVISION £29.99 MOUSE AND/OR KEYBOARD

GRAPHICS AND SOUND

The small pictures are adequate, but not superb. Still, there are plenty of them and they help to add to the atmosphere created mainly by the text. As for sound, forget it for a basic ADD! anyway. The lack of sound does little to detract from the game however, so don't let it put you off.



Picture is monster confrontation...

very easy and consists of simply reading the messages and deciding which actions to take.

Once you've found your way to Astoria's abode, the adventure really starts. The quest involves searching through the kingdom of Inverness, Duns, Nampole and other locations both fair and foul for seven sacred amulets that will enable the wizard to fight the Dread Lord. Progress is generally rapid if a little common sense is applied, but if you are completely stuck the 'hints/guide' option at the end of the game lists all actions that you should have taken.

Altogether, Journey is good fun. The keyboard system is simple

and easy to use and the puzzles are all very logical and intriguing. It obviously won't appeal to hard-core shoot-'em-up fans, but anyone who likes games that require thought should well be rewarded with many hours of enjoyment.

Andy Smith

GRAPHICS	7
SOUND	N/A
INTELLECT	8
ADDITION	8
OVERALL	82%

MAYDAY SQUAD

THESOFT £19.95 JOYSTICK, MOUSE OR KEYBOARD

International terrorists are a nasty bunch, especially when they take control of foreign embassies and threaten to blow them up. Luckily for intuition, the Mayday Squad is here.

As the Squad's commander, you must select a team of three: each member specialises in a certain area, such as explosives or communications who explore the floors of the embassy, shooting terrorists before they score too many hits on the team. The aim is to rescue the ambassador's daughter and free the prisoners before guiding them safely to the roof for collection by a helicopter at either a base level.

Each room is well drawn from a first-person perspective and the graphics are of very high quality, although repetitive. Sound effects, such as machinegun fire and



The Mayday Squad members are equipped with a variety of weapons and explosives.

explosions, are extremely good. All in all, with plenty of bullets to blast and some clever puzzles to solve, it's enjoyable and exciting for a while, but it is ultimately a simple 'shoot and shoot' game, lacking in variety and testing challenge despite the advantage of chargeable doll levels.

Andy Smith

GRAPHICS	7
SOUND	8
INTELLECT	8
ADDITION	8
OVERALL	87%

AMIGA FORMAT 43

CHEQUES, ETC. TO BE MADE PAYABLE TO:
HARROGAT U.K.
UNIT 11, CENTURION WAY INDUSTRIAL ESTATE
PARNETTON, LINTLAND, PRESTON,
LANCASHIRE, PR5 5GR
TEL: 0536 660022, 0536 660023 (2 Lines)



■ We control the cockpit, we control the collection; you see how different this *Gunship* display is. *TADES* has assigned a target, but what is it?

GUNSHIP

MICROPROSE £24.95 JOYSTICK AND KEYBOARD



Selecting a payload, as much occupancy as your AH-64 can handle.

GRAPHICS AND SOUND

Sound is disappointing: the attack helicopter sounds more like a diesel bus strapping up a one-hour than the real thing, and explosions aren't outstanding. The graphics are flat and smooth, though, and are certainly very colorful. Use the plunger, set everything on 'realistic' and volunteer for some of the more hazardous missions, and you'll find that *Gunship* is addictive enough to keep you coming back for months.



Preparing for attack on infantry squads.

If 'realistic' and 'collective' mean absolutely nothing, then the chances are you've never piloted your way against a helicopter flight sim. In a real helicopter the pilot uses two joysticks: the cyclic, which controls the pitch and roll of the aircraft, and the collective, which controls the angle of attack of the rotor blades, so governing the lift.

In *Gunship* — a simulation of the American AH-64 Apache helicopter — the player uses a joystick to control the cyclic and the keyboard to control the collective. There are a number of missions to attempt, set in various parts of the world and with different divisions of the American Air Force. As with most games of this nature, diving straight into missions is not a good idea until you've got in some flight practice and can handle the 'cyclic' confidently despite the weather. Fortunately you can view things slightly in your favour while training: for example, by making crash-landings impossible or removing enemy units.

Once you're competent, it's time to attempt a mission with a difficulty level equal to your ability.

You've a whole range of weapons to choose from, including guided artwork, Hellfire missiles, FIMAR rockets and a 30mm chain gun. The cockpit is equipped with all the latest gadgetry including TAGS (Target Acquisition and Designation System) and radar and infrared warnings and jamming.

Missions usually feature both primary and secondary objectives, so if your 'cyclic' isn't dead to pieces on the first, you can go for the second. The Apache is lightly armoured, so can take a little flak without coughing into the tank, but it's still vulnerable, so it's always advisable to land at base for repairs if things start to look bad. Should you complete a mission successfully the chances are you'll be awarded a medal and maybe promoted.

Gunship has plenty going for it: the missions are numerous and varied and it's high on landing interest. The politics are subtle but if you're not worried about rapping goals you'll find the game entertaining, challenging and packed with action.

Andy Smith

GRAPHICS	7
SOUND	3
INTELLECT	6
ADDICTION	4
OVERALL	87%

CIRCUS ATTRACTIONS

GOLDEN GOBLINS £19.99 JOYSTICK



PLAYER CIRCUS ATTRACTIONS GOLDEN GOBLINS

Following Grand Monster Slain, a multiwinner set on another world, comes Golden Gobblins' latest offering, a multiwinner set in the Big Top.

There are five events in which you and a friend can participate. The first is trampolining, in which you have a couple of minutes to bounce around performing forward and backward somersaults in order to impress the crowd and so score points. In two-player mode, each player controls a character on his own trampoline, but when one player starts a somersault the other follows.

Having had a surfeit of this bouncing, you can turn a flip to tightrope walking. The task here is to help Olga balance during her diagonal walk across the screen

by moving the gyroids to the left and right. If things are going well it's possible to attempt tricks such as somersaults, handstands and backward somersaults, each completed trick earning points.

Survive the high wire and it's time to try your hand at juggling, with up to six tennis balls plus a balancing ball on the foot and the occasionalinker club. As if that's not enough, a misbegotten clown riding a motorbike occasionally attempts to run you down, so it's a good idea to jump in the air at the appropriate time and so avoid him.

The penultimate trick is quite likely to be the most dangerous: roller skating. Here, the circus fairies up on the wheel, to which is securely fastened a nervous young lady, then take turns from



It's a circus, but there's more to it: a barrage of events from the circus.

the obligatory scantly-clad assistant and bob them at the wheel, trying to miss the girl if at all possible. Curiously, the assistant is none too friendly and will sometimes try to hand you a stick of dynamite, which explodes if you accept it, thus ending the game.

The final trick involves three clowns and two acrobats. The players must guide each clown in turn as they jump from one ribbon to the other, avoiding a ghoul that appears between them, and collecting any bonus points by catching various obstacles that appear above the clowns' heads.

The events all require practice to achieve a good degree of competence, and some events are

definitely tougher to master than others. None of the events has outstanding gameplay, so Circus Attractions comes across as a pot pourri of mediocre games that tend to frustrate more than entertain. The fun improves if you play with two, but not greatly.

Andy Smith

GRAPHICS AND SOUND

Graphics throughout are good. The colourful backdrops, good perspective and smooth animation all work well together making it very attractive visually. Sound is not so hot: the game organ tunes, but accompany each event are all well executed and add atmosphere, but they're for the most part repetitive and are likely to become annoying sooner rather than later.



GRAPHICS	8
SOUND	7
INTELLECT	7
ADDICTION	5
OVERALL	66%

with
the
original
Duke
and
his
wacky
crazy
quests
and
adventures
you
can
score
TOP
SCORE
RECORDS
and
more

TARGHAN



Targhan

Far from Edengarten is the castle of the evil one.

Far from your village, a lord keeps the secret, such a powerful lord that he cannot be human, a creature floating a world that dies and grows again.

Targhan is probably the most stunning game you'll ever play.

Targhan is an adventure-action game with more than 120 landscapes and 40 different characters. The game is playable on either keyboard or joystick.

The game offers digitized sound and outstanding graphics.

It will be released on Amiga, Atari and PC (EGA, VGA and CGA) by the end of May. The game will run on both colour and mono screens.



Silmarils

To enter our competition please send your warranty cards of TARGHAN and complete the following:

I like the game Targhan because

Send your entries to: UNIT 1 (Box of 2), WELLINGTON ROAD, LANDHUNT, BURNHAY (GU11 5AW) (0202) 877018 - Fax: (0202) 877011

Closing date September 3, 1989.

DEALER
INQUIRE
WELCOME -
SPECIAL
DISCOUNT
Distributors
enquire
welcome



The word is PROTEXT...

Now available - Version 4.2 of Arnor's acclaimed word processor

PROTEXT is very fast! Unlike the majority of Amiga word processors PROTEXT scrolls very quickly and redraws the screen in next to no time. We have achieved this by developing our own screen handling routines - much faster than the standard ones.

PROTEXT uses the Amiga "WIMP" interface fully and supports pull down menus, use of the mouse for cursor movement and block copying and window raising. PROTEXT makes full use of Amiga Preferences settings and is fully compatible with the Amiga's multi-tasking operating system.

Protext is the result of 4 years of development. Unlike the majority of competitive programs Protext is 100% British and is being developed further all the time in response to the needs of British users. Registered users are always informed when upgrades are available.

"Protext really is the best text processor on the Amiga!"
25 AUGUST FORNAT 2:59

"Protext - the real joy comes only from using it. I can say without any fear of contradiction it is the best word processor available at the price, in my class, at any price in fact."
JUL 2:58

A brief summary of some of Protext's features ...

Background printing edit/delete further files while printer is busy
File manipulation move, copy, or delete any file as well as blocks
Configuration set over 50 options to suit own preferences using our menu driven configuration program
Dictionaries add/delete words to/from supplied 70000 word English dictionary. Create your own dictionaries.
Disc utilities copy files, erase, rename, type, create directory, change directory, remove directory, catalogue files, store sequences of commands in files for easy use
File conversion the conversion utility for other WIMP files
Find & replace very powerful and fast with many options
Foreign languages 10 built in, implement languages. Easy to use command letters: A a Q B b C c D d E e F f G g H h I i J j K k L l M m N n O o P p Q q R r S s T t U u V v W w X x Y y Z z
Formatting auto-format, external para, block or whole text, up to 4 lines of text, different paragraph headers
Headers & footers auto page numbering, footnotes, edit and command help available on-screen
Help string any sequence of letters together on a single key e.g. "You're stonewall". Load and save macros
Keyboard macros string any sequence of letters together on a single key e.g. "You're stonewall". Load and save macros
Line drawing ideas for drawing lines (incl. comment around text)
Line spacing variable in half lines, including 0.5, 1, 1.5, 2, 2.5, 3
Printer support works with any parallel or serial printer. Wide range of printer drivers supplied, incl. laser and 20-pin printers, or create your own drivers or still ours.
Printing styles bold, underlined, double strike, italic, bulleted, enlarged, plus, RLD, subscript, superscript, microspacing, proportional spacing, any other printer font

Program mode suppresses formatting; auto-indent; set tab stops
Proportional text will print proportionally spaced, right justified text
Quick dictionary dictionary (held in memory) is very fast
Water lines any number of lines fixed to define document layout, left/right margins and non-standard tab stops
Typing checker check whole text from disc or memory, or as you type, suggests alternative spellings, works with foreign languages
Symbols full character set available on screen. Character symbols may be redefined
Time and date time shown on screen, insert time or date into document
Tutorial files help you to start using Protext
Two file editing two documents in memory, copy text between them
Typewriter mode direct printing for typewriters etc.
Utilities retrieve text (saved) in word
Word count quick count at any time, whole text or just a block
Word puzzles anagram and crossword solving features
Wyselying on-screen (bold, underline, italic, italic image)

The most comprehensive text processing program available. Use it for letters, personalisation, "standard letters", club membership lists, and much more.
• read data from file from any database or spreadsheet program
• ask for variables from keyboard • display message-white printing
• include file for printing • rational white printing
• conditional printing and repeat until loop constructs
• currency calculations and string operations including substrings
• commands to write information to a separate file
• operators: +, -, *, /, %, <, >, =, <=, >=, <!, >!, =!, <=!, >=!, <=!, >=!

Protext is a professional word processor

If you want a fast efficient program for processing words, get PROTEXT

Latest News and Announcement

- Version 4.2 is now available. Enhancements include:-
- Revised and improved 800 page manual and index
 - Current date and time are available as single key strokes
 - Improved memory allocation and smaller program makes better use of your memory.
 - Scroll Lock function pauses after displaying a successful test
- Upgrade price from v4.1 is £7.95.

COMING THIS AUTUMN

"PEOPLE" - the Arnor Database for PC's/Amiga's.
(People have been waiting years for this)

Prices

	IBM PC	Atari ST	Amiga
Protext v4.2	£55.00	£55.00	£55.00
Protext File	£24.00	£24.00	£24.00
Protext Office	£24.00	£24.00	£24.00
German Dictionary	£15.00	£15.00	£15.00
Demonstration discs available - please phone			



Releasing your micro's potential...

ARNOR

Arnor Ltd (AFS) 833 Lincoln Road, Peterborough, PE1 3HA. Tel 0733 68000 (24 hour)

All prices include VAT, postage and packing. Arnor/Healthcarepostal order.

Fax: 0733 67266 Posttel: 01604-0000

Ready for the start of a race? The game's one tap to start the five-lap, 1000-foot race.



POWERDROME

ELECTRONIC ARTS \$24.99 MOUSE OR JOYSTICK

Not many games have been written that take control of the joystick. First and Ferrari Formula One are two that spring to mind. This is another case for the collection, in which the advanced control mechanism is reflected by the futuristic nature of the game.

Imagine racing a jet fighter along courses that rise underground, twist and turn wildly, and even have moving walls. You are now imagining this game. It's a fabulous sport that is far more

demanding than anything on two or four wheels, or any flight sim. Not only are you required to battle the fastest racers but you must also take on computer opponents, or another player via a databank, at the same time.

There are seven tracks, the simplest of which is a basic oval at the rest are much more complicated. You must fly around the tracks as quickly as possible, trying to avoid the walls and other ships. This is made easier to start with by using a centering mechanism which attracts the ship back to the



It's fast pursuit of a opponent.

middle of the track. It has adjustable strengths that can be gradually turned down as you learn the intricacies of the courses and how best to fly them.

Each track is on a planet with its own atmospheric conditions, oxygen, ammonia or sulphur in the ship must be filled with the appropriate filters. This is complicated during races by rain or other precipitations that require particle filters to prevent engine failures. The ship also has other adjustable features, such as the fuel type, sensors and brakes, that affect its performance.

There are four other racers in different ships and contact with them or the track walls damages the ship. Too many accidents will affect the handling or instruments. In order to undergo repairs or be refueled, the ship has to be



Subverting a more craft to race.

retired to the pit which takes up valuable time, so careful flying is just as important as speed.

After a few days' practice this is a fantastically absorbing game. Initially, the odd, to flying help a lot, but once you are good enough to get rid of them it is a unique racing experience. Not only is it worth spending the time to begin with, it will remain a classic for years to come.

Bob Wade

GRAPHICS AND SOUND

Stunningly fast solid 3D graphics give a marvellous feeling of movement. This is complemented by excellent presentation and stereo modes that make delightful viewing and listening. The pit graphics are detailed and believable. Engine noise and mechanical sound effects are all 'for the money' too.



The ship retired to the pits.

GRAPHICS	9
SOUND	8
INTELLECT	3
ADDICTION	8
OVERALL	92%

PREMIER MAIL ORDER

[illegible]

**SPECIAL OFFERS
AT LOWER PRICES**

Source	Page(s)
Adam Carlin	3, 500
Chappelle	3, 500
City Limits	3, 500
Forbes Underground	3, 500
Jump 200	3, 500
Mike The Dragon	3, 500
Playboy T	3, 500
Quaranta	3, 500
White Trash	3, 500

**SPECIAL OFFERS
AT 17.99 EACH**

[illegible]

POLYMERIZATION OF VINYL ARYL ETHERS

[illegible]

Please send cheque/PO/Access/Visa no and expiry date to:
Dept APB, Trybridge Ltd, 8 Buckwinds Square,
Burnt Mills, Basildon, Essex SS13 1BJ

Please state make and model of computer when ordering. Postage and packing included in UK on orders over £5.00. Orders less than £5.00 and Europe add £1.00 per item.

Elsewhere please add \$2.00 per item for Airmail. These offers are available mail order only.

Now releases must on day of release. Tel orders: 650-650-6506

RAMPAGE

ACTIVISION £24.99 JOYSTICK AND/OR KEYBOARD

Gorge, Lucie and Ralph aren't the sort of names you'd imagine causing tearing a rivulet across Britain to King Kong, Godzilla and the Muttman would love, but

they're determined to smash their way through as many of America's finest cities as they possibly can.

Converted from the Rolly Muttman cartoon, the game can handle up to three simultaneous

players - each controlling a monster - and when you're not fighting amongst yourselves the idea is to destroy a set number of buildings by climbing up and punching wrecking great holes in them.

Obviously the citizens tend to defend themselves, so the army has been called in and doesn't mind shooting or lobbing sticks of dynamite at you and little bit. Every bit you take reduces your stamina - pictured in the form of a horizontal bar at the top of the screen - and once it reaches zero the game's over. To prevent this happening simply reach out and chomp as many people as you can, which restores you to zero.

Rampage is a fun game to play. The animation is fine and so are the backgrounds, if a little basic, and the sound effects are reasonably good. The game itself is simple, addictive and, when three of you are playing at once, quite pleasantly messy, but don't expect it to keep you playing for months on end. Type it now!

Andy Smith



■ Framed against the skyline, our monstrous heroes prepare for destruction.



■ Gorge the Gorbilla is looking for trouble...

GRAPHICS	4
SOUND	3
INTELLECT	2
ADDICTION	7
OVERALL	72%

This French football is doing its best to become quite phenomenally of the year, following other wacky favourites like Gribble, Ping, Pogo and Bubble and Gribble. His (for it is he) and not a Skweekball whole motivation is this is to turn blue-tinted pink by running over them. From this simplest of concepts are constructed 99 fun levels.

The boys are laid out across virtually-scrolling levels packed with other features, the most ludicrous among which are the creatures that appear from portal lies and are fatal when run into.

Two that are covered in ice, in Skweek travel only one way, outside or inside can also cause problems for the unwary. Fortunately, you can shoot the creatures and pick up useful bonuses along the way which

SKWEEK

LORICIELS £19.99 JOYSTICK OR KEYS

include increased firepower, more speed, and extra lives and shields.

On the whole, the game is thoroughly enjoyable because it's so easy to play and yet has lots of

variety in the levels. As you would expect from a cutesy game the graphics are very colourful, featuring sprites that are detailed and nicely animated. Sound consists

of a repetitive, eddily tune played throughout and cheesy organic effects. The fun might not last for long, but it's great while it does.

Rob White



■ Skweek, the cutesy football wonder stage, runs into a speedy spin.



■ This is Skweek football, using one of the computer warts.

GRAPHICS	7
SOUND	6
INTELLECT	2
ADDICTION	3
OVERALL	78%

AFRICAN RAIDERS

TOMAHAWK/COCKTEL VISION £19.99 JOYSTICK

Strap yourself in and take part in the African stages of the Panoflex rally, courtesy of Persian software house Tomahawk.

There are five stages to the game, the idea being to make it from Point A to Point B in the shortest possible time, any which way you can. There's a roadway to follow, should you so wish, marked out with oil barrels, but it's twisting and the other racers tend to stick to it so your time

will be slow. To be in with anything, like a chance of winning you have to venture cross-country, which is where the problems start.

The desert is full of hazards: barrels from last year's race, herds of rearing camels and soft sand. Sand multiplies problems by slowing you right down, but fortunately you can simply switch from two to four-wheel drive and crossing the sand becomes much easier, though still slower than two-wheel drive on firm ground.

To help you navigate while you're off the track there's a digital compass on the dashboard. There's also a fuel gauge and an indicator regulated by transmitters from a central helicopter giving you a good reference, which enables you to follow and plot the course on the map supplied with the game. All the instruments are vital to successful completion of the stage, but they can get broken if

you smash your car up too much and it's terribly difficult to navigate with no instruments, so careful driving is a prime requisite.

On the approach to the finishing post, only if you pass and follow the track to the line will your position be logged. Then the car is repaired and you can get out on the next stage.

The perspective used is good, the game visual is very fast and it boasts good gameplay, but it's not the most exciting of race games and offers little new apart from the map-reading aspect and a couple of new hazards. Still, it's well worth a look.

Andy Bath

GRAPHICS	4
SOUND	3
INTELLECT	3
ADDITION	4
OVERALL	68%



18 Waiting with others for the chequered flag at the start of a stage.

GRAPHICS AND SOUND

As you might expect from the French, the graphics are of a high standard. Collision detection seems a little off, but not disastrous.

As for the unimpressive desert, the hazards and the backgrounds are all good. Sound is of a similarly high quality, helping to make this an extremely enjoyable, if not outstanding, car racing game.



19 Playing over rough ground past the camels.

CLASSIC INVADERS

SUPERNOVA SOFTWARE £14.95 JOYSTICK OR KEYBOARD

There's nothing new we could tell you about Space Invaders so, unfortunately for Supernova, that

only leaves the conclusion. The Invaders in this version move excruciatingly slowly, even when there's only one left on screen, the collision detection is idiosyncratic through your barrier and you take out either a whole column's worth, or absolutely nothing at all, and the sound is best left turned off. Bringing a classic like this to the Amiga is not such a dumb idea after all it

has, and always will have, a place in the hearts of most computer owners. But to produce a version like this and expect people to buy it is idiotic. If you really want to kill Space Invaders, there are many better PC versions, which will entertain you rather than make you hate yourself and reach straight for the subzero bin.

Instead of buying this, you could grab yourself a copy of the PC game Amos Invaders, given away free on the cover of

ST/Amiga Format Issue 5, or from Pink Disk Number 120.

Andy Bath



14 Looks like a classic Invaders...

GRAPHICS	1
SOUND	1
INTELLECT	1
ADDITION	1
OVERALL	89%

CastleWarrior



Your King
has been Poisoned !
You have one day
to find the Antidote.

FOR ATARI ST AND AMIGA



DELPHINE SOFTWARE

DELPHINE
SOFTWARE

NAVY MOVES

DYNAMIC/ELECTRONIC ARTS £24.95 JOYSTICK



■ The first part, examining wrecks, also comes in an inflatable dinghy.

The first part is also sub-divided into smaller sections. At the start of the game you're on the surface of a very choppy ocean in an inflatable dinghy, trying to jump a line of mines that are little more than a boat's length apart. Then you confront deadly commandos on jet skis; later's where the harpoon gun comes in, because if these guys shoot or crash into you, one of six lives is lost.

Get past them and it's time to dive in and take on some deadly sharks and enemy frigates. These are all small fry compared to the third stage, though, where you chamber inside a bathyscope to take on first an octopus and then a large eel-like monster.

The second part is a side-view platform game set inside the sub, during which you must juggle a bomb in the reactor and escape. Unfortunately, it's not easy to move around the sub without the games that officers carry, so you must shoot and nix them.

This game differs from Army Moves in the scenario only. Navy Moves too has extremely difficult gameplays, to the point where it spoils your enjoyment rather than increasing it. It's incredibly tough and for the first part at least, the game is simple, unexciting stuff.

Andy Smith

GRAPHICS AND SOUND

The animation's good and the moodily atmospheric backgrounds are great too. Sound effects are nothing special, however. What a game in the graphics and sound departments does not compensate for the lack of good gameplay.



■ Part Two: inside the submarine.

Put on your floppers and control and make ready with the flamethrower and harpoon gun because it's aquatic death and destruction time.

The USN44 nuclear submarine must be destroyed and it appears you're just the person for the job if you can get there. Like Dynamic's earlier game Army Moves, it's a harrowing, action in the second part being closed until you complete the first part and receive an SCUBA tank.

GRAPHICS	8
SOUND	5
INTELLECT	5
ADDICTION	5
OVERALL	53%

SPHERICAL

RAINBOW ARTS £19.99 JOYSTICK

Remember Solomon's Key? If you do, this is a lot like it. If you don't, well, the aim of this 'influenced' game is to ensure that a ball runs down to a certain part of the screen by building blocks over holes in another set of blocks that already cover the screen.

There are ghosts to avoid, magic potions to collect and some 200 different levels to complete. There's even a simultaneous two-player mode which you may find useful because on a lot of the screens, you have very little time to think about where the ball will

roll once it starts or whether it will fall down the wrong holes. The laws of gravity are played here, so if the ball lands on the floor there's no way of making it roll

uphill to the end again unless you are lucky enough to discover a gravitation switch, which will simply reverse the gravity.

The control is awkward, but the game's fun to play and although it's unoriginal it's quite a mental exercise. With 200 screens to complete it's hard to keep you busy for some while.

Andy Smith



■ It's weird: problems the ball must reach the bottom-left, but not!

GRAPHICS	7
SOUND	5
INTELLECT	7
ADDICTION	5
OVERALL	64%



BALANCE OF POWER 1990



DENARIUS



DUNGEON MASTER



ELITE



F-16 INTERCEPTOR

BALANCE OF POWER 1990 MINDSCAPE \$24.95

The current zenith of strategy games and probably the only game ever to be reviewed in the New York Times, it's more than just a game; it's a thorough simulation of global politics between the USA and USSR. The attention to detail is extraordinary. After playing this, you will probably know more about world politics than most politicians do.

TIPS

Getting a balance between survival and scoring points is the whole art of the game. Factors to bear in mind are spheres of influence, precedence and relative importance, too. The advisors are a good general guide, but the hard decisions are all yours.

CHALLENGE

The Multi-Polar Level is immensely complex and a match for anyone.

DENARIUS RAINBOW ARTS £24.95

Horizontally-scrolling shootouts don't come any better than this piece of Germanic genius, which features some of the best blasting graphics ever seen and gameplay to suit the most demanding of players. Scores over its rivals in the variety and deviousness of the alien attack patterns. Satisfyingly, a death and the loss of all additional weapons does not necessarily herald the end of the game; it is still possible to battle through, although much tougher. The end-of-level guardians are varied and tricky, the hardest being the enormous scorpions. There are enough levels, too, to keep even the most hardened blaster happy.

TIPS

Static attack patterns mean most enemies can be wiped out easily by correct positioning. Beware the weapons capsule with the yellow black as it removes the score card, leaving the ship vulnerable.

CHALLENGE

Survive through three levels without collecting additional weapons.

DUNGEON MASTER MICROSOFT £24.95

A masterpiece of adventuring and roleplaying that first appeared on

BEST EVER!

We proudly present our Top Ten of the best ever games: so good that there's eleven...

the ST and is, sadly, only available in a one filing version. Load a party of adventurers through fourteen levels of Lord Chaos's dungeons, fighting all manner of vicious monsters and solving some very tricky puzzles in an attempt to rescue your master's Princess. Superb graphics and sound effects bring heaps of atmosphere to a thoroughly addictive game that'll have you on the edge of your seat the whole time. Worth buying a memory expansion for...

TIPS

Use some of the more vicious monsters into doorways and keep the door blasting down on them while you fight.

CHALLENGE

Play the game from the start without mapping it as you go.

ELITE FIREBIRD £24.95

This classic space trading, combat game is still the best of its kind. Starting out with little money in a simple ship, you have eight galaxies to explore. Dogfight with probes and aliens as you shuttle goods from planet to planet, trying to earn money to equip your ship. Whether you choose to operate within the law or outside it is entirely up to you, but whichever path you choose, a dogfight is just around the corner and the enemy ships take no prisoners! A hellacious game world, terrific gameplay and as big a task as you'll find anywhere, its absolute must.

TIPS

Type "BANK" when first prompted for the startup password, then enter the correct code. During the game press "" to bring up the

hacking screen, and then enter the following codes:

Byte	Value	Result
18	FF	Absolutely
19	FF	Location
1A	FF	Locally
1B	FF	Local
1C	10	Mission 1
1D	20	Mission 2

CHALLENGE

Play the game without the help of the above cheats or a docking computer.

F-16 INTERCEPTOR ELECTRONIC ARTS £24.95

A solid-3D combat flight simulator with the emphasis firmly on fun too. There's a host of views, both within and outside the cockpit, and heaps of missions to complete, some of which are very devious indeed. The overall game structure is great and the attention to detail superb. The graphics and sound effects are both tremendous and the frame rate is impressive. Everyone should see at least one combat flight in and this is still the best.

TIPS

Be careful not to always trust the mission briefing.

CHALLENGE

Experts should be able to complete a mission without using missiles.

HYBRIS DISCOVERY/NEXTEN £24.95

Some of the hottest, fastest and most frantic arcade action you'll find outside the arcade. Fly like a heavily-armed spacecraft

through an alien fortress, blasting ground emplacements and any alien attack ships that are foolish enough to appear on the wrong side of your laser cannons. As you progress, you can pick up extra weapons to help the alien warlord move into top gear.

TIPS

Remove the flight patterns of the different alien attack waves so that you can waste them as soon as they appear. Ground emplacements can have you cornered in so time; if possible, knock them out without the slightest delay.

CHALLENGE

Survive for three levels without destroying the ground installations.

NEBULUS HERBORD C19-00

In much more than just a platform game, it's a unique concept that feels both the mind and the reflexes. The crucial feature is the setting, in the middle of a sea on a number of towers that swivel in one character moves round them. There are all manner of nasty surprises throughout the game, as you struggle to reach the top of the towers within a limited and without tumbling into the water. It's a magnificent concept, superbly executed, instantly addictive and with enough difficult levels to stretch the best.

TIPS

The most important thing to learn is the timing of the appearance of the spinning disks; get in rhythm to see an awful lot of sudden drops. Watch out for areas where being knocked down by the alien is vital to progress.



CHALLENGE

Complete the first three towers without being knocked down once to earn a 100% technique bonus.

POPULOUS ELECTRONIC ARTS C24-85

A relative newcomer, but with all the essential ingredients needed

to ensure instant classic status. You play the part of a deity being overthrown a race of people living on a small world. Unfortunately, there's also another deity being letcher the computer or a friend trying to look after a real race: because the world is too small for both races, one has to go. And that's where you come in, by helping your tribe to settle, build a civilization and conquer the ground. You gain the power to make a whole gamut of natural disasters upon the opponent's people, thus helping your tribe and increasing your power still further. With a thousand worlds to conquer, Populous is destined to keep you playing for months; and you're sure to enjoy every minute.

TIPS

Viciousness: the opposing population in the same spot several times is very effective. Keep building new settlements for your people throughout the game; power, the key to the game, is derived from settling. If they are too comfortable and have lost the inclination to explore, reduce the size of a settlement until it's too large to hold: the population's settlement will then look somewhat out to explore and settle new territory.

CHALLENGE

Play three consecutive worlds without using any of your divine powers: no earthquakes, volcanoes, lightnings, floods, comets, or any of the other acts of god...

THE SENTINEL FORBIDDEN C19-05

Stare and compelling strategy game played over the chequered surface of a planet dominated by the Sentinel. Essentially, you must absorb energy while trying to prevent the Sentinel from absorbing yours. A clear brain and a fast trigger finger are both vital in this original and huge - ten thousand landscapes - game.

TIPS

Remove all the barriers and position yourself right next to the Sentinel but you can absorb him whenever you wish to, while he's turning slowly toward you, survey the land and absorb any extra trees and the like. As soon as he starts scanning you, simply absorb him and take his place.

CHALLENGE

A considerable achievement would be to win a landscape without taking out any sentinels.

SUPER HANG-ON ELECTRONIC ORANGE C24-09

The best racing game on two wheels, more than a match for any of its four-wheeled rivals. The rolling road looks fantastic, every stage is accompanied by delightful scenery, the roaring engines sound good and the music is excellent. Pacing is perfect: lightning fast leads make winning a very difficult proposition. The music controls delighted too.

TIPS

Keep your finger on the accelerator and get fast. OK, you do need to slow down occasionally but slowing into corners early helps.

CHALLENGE

Complete the first five-stage course without crashing once.

VIRUS FORBIDDEN C19-06

State-of-the-art 3D graphics and a superb control system are hallmarks of this classic from Elite author, David Braben. Although criticised for being too hard to play, with a little practice it's one of the most addictive, challenging and enjoyable shoot'em-ups ever created. Stop the alien from invading the beautiful, rolling, patchwork landscape by reducing every one of the many types of enemy (all in glittering clouds of debris). The graphics are stunning, the sound effects are superb and the gameplay is cerebral.

TIPS

Muscle are precious - use them only to take out attackers and mystery craft. By following low over the water you can see the shadows of incoming attackers and their escape trails. Along with the sound cues, this allows you to manoeuvre and thrust at the right time to gain a height advantage and attack. Take out bombers and bombers first because the land-target bonus can earn valuable extra lives. On later levels, try to neutralise just before the pods start wailing: in you will not be able to while they are around.

CHALLENGE

Destroy all the scanners on Wave One and then get to Wave Five the new landscape flying blind. High-score fans should have a crack at getting to the third landscape and scoring 250,000.



HYBRID



POPULOUS



THE SENTINEL



SUPER HANG-ON



VIRUS

4

GO MAD ON
A COIN-OP

Win US Gold's Gauntlet II
coin-op worth over £2,000,
plus heaps of US Gold
sweatshirts and games.



A dream came true for all arcade fans: your very own coin-op. It's no ordinary coin-op either: it's the smash hit Gauntlet II. That's not just one of the best player action, but, for players beating and chasing around together. You friends will love you for it.

As if a two-guard arcade machine wasn't enough, US Gold are also giving away 20 sweatshirts and 20 games as runner-up prizes. Each of the 20 runners-up will get a sweatshirt and a US Gold game of their choice.

Gauntlet II is a classic game that combines heroic blasting action with lots of level exploration and player co-operation. It's a marvellous arcade experience, not to be missed.

To be in with a chance of winning this fantastic machine or one of the 20 other prizes, all you have to do is answer the following three questions.



stick the answers on the back of a postcard or stick-down envelope and send it to: Gauntlet II Comp, Ampex Format, 4 Queens Street, Bath BA1 1EL. The entries should reach us by August 21st and don't forget to include your name, address and phone number on the back of the US Gold prize card like to receive it you win a runner-up prize.

postcard and add the name of the US Gold prize you'd like to receive if you win a runner-up prize.

RULES

Employees of Future Publishing and US Gold are not allowed to enter. The judges' decision is final: no correspondence will be entered into.

QUESTIONS

1. Which of these is one of the four characters in Gauntlet II?
a) Binko the Wizard
b) Doran the Bull
c) Mordo the Wizard
2. What should you do when touched by the 'T' monster?
a) See a doctor immediately
b) Touch another player and pass it on
c) Touch a 'T' monster to get rid of it.
3. What nasty tactic do sorcerers use when attacking you?
a) Shoot magic that freezes you to the spot
b) Reverse the controls
c) Go invisible for short periods of time.

REMEMBER to include your name, address and phone number on your entry.

HiSoft BASIC Compiler

Now BASIC has come of age

HiSoft BASIC is a fully-integrated compiler and editor that makes it beautifully easy to convert all your AmigaBASIC programs into fast-running machine code.

In fact, **HiSoft BASIC** is so simple and quick to use that you will soon find that you no longer need the AmigaBASIC interpreter at all, you can do everything you want with **HiSoft BASIC**.

HiSoft BASIC includes full support of the Amiga, as standard, with extensive window, screen and graphics commands. In the same way as the interpreter, Amiga libraries can also be accessed as if they were built-in statements allowing complete machine access.

HiSoft BASIC includes full MEMU support, with event trapping and powerful sprite routines, using the OBJECT keywords.

Compiled programs can execute in their own window(s) or use the GUI window for minimum size. GUI-type programs may be easily written and made resident since they are fully re-entrant.

For larger programs and for those programmers with strong editor preferences we also supply an editor-less compiler for traditional disk-to-disk compilation methods.

HiSoft BASIC is a no-limits language; string variables may be up to 10Mbytes in length and there are no limits on array sizes either (subject to available memory). Code generated is fully 68015/020/030 compatible.

Compiled programs have no run-time overhead: all compiled programs share an Amiga library, which may be distributed with programs without charge. Compiled programs multi-task, of course, but as they all share the same library, memory usage and disk space is kept to a minimum. There is also an option to produce completely stand-alone programs which include only as much of the library as they need.

A new feature of the latest version of **HiSoft BASIC** is the ability to link BASIC with C and assembler!

■ Compatible with Microsoft QuickBASIC 3, Atari ST BASIC, AmigaBASIC and most other BASICs

■ Full structured programming with long IFs, multi-line functions, sub-programs, CASE, WHILE, REPEAT, DO etc.

■ Optional line numbers, lots of compiler and run-time options allowing tremendous flexibility both at compile & execution time

■ Full recursion in sub-programs and functions plus local and global variables, arrays as parameters

■ 5 types of variable, integers, long integers, single & double-precision floats and strings of any size

■ No limits; no program size limit and no variable size limits, memory permitting

■ Interactive environment; invoke the compiler from the easy-to-use limitation editor and all errors will be reported, in English, giving you the option to go straight back to the editor for correction or to carry on compiling. You can run your program from the editor so it's just like using an interpreter - but much, much faster!

■ Power features like include symbolic debug, signal traps on processors and much more

■ Complete with free AmigaBASIC Inside & Out tutorial book plus examples disk, for a limited time

"... the manual is clearly written and informative and an example of how a computer manual should really be written. HiSoft BASIC has got a great deal going for it, it's fast, portable, compiled and ... it's quite simply the best implementation of BASIC yet seen on the Amiga! New Computer Express 128/188

ORDER FORM

Name

Yes, please rush me a copy of the HiSoft BASIC Compiler for my Amiga at £79.95 inc.

Address

I would like to pay by:

☐ Cheque/Postal Order ☐ Access/Visa

Access/Visa
Card No

Expiry

Signature

Send or please your order to: HiSoft, The Old School, Greenfield, Bedford, MK45 5DE. Tel: (0525) 718181

HiSoft BASIC



DESIGN 3D fully exploits all of the Amiga's capabilities (Graphics in 16 colour out of 4096, resolution of 640/312, rapidly, multitasking) in order to allow the creation of objects in real 3D. You visualize these in either four views (front, side, from above, perspective) or full screen. The perspective mode allows a representation with some sides hidden, according to seven different modes, one of which uses shading from 4 light sources. Furthermore, due to the fact that DESIGN 3D works in points, facettes (and volumes, each of these entities can be manipulated independently from the others (moving, deletion, rotation...)). Thanks to the output possibility on graphic printer or plotter (HPGL) you can see your designs on paper. Further, a parametric grid, a reticle, a font editor and the display of numerous parameters make DESIGN 3D an incredible user-friendly product for every person wanting to work in 3 dimensions. Instructions and program in English.

£79.95 inc VAT

Contact your nearest dealer or
**HB MARKETING LTD, BROOKLYN HOUSE,
22 THE GREEN, WEST DRAYTON,
MIDDX. UB7 7PQ
TEL: 0895 444433**

- Simple User Interface.
- Quick to get impressive results.
- Includes Animation.
- Easy to rotate object in any dimension.
- Videoscape compatible.



INFOGRAMES



GOLD DISK

Over the past couple of months, Commodore have stepped up their advertising into the virtual markets. The latest result is to receive the Amiga treatment is that of the low-end CAD workstation. Commodore have joined together a range of 'official' Amiga CAD 'solutions', as the PR people like to call them. The basic system consists of an Amiga 2000 with 3-Mb of memory, 14-inch multi-sync colour monitor, 580C5 accelerator card and the professional version of X-CAD, the suitably named X-CAD Professional.

Prices for these lovely bundles of kit range from about three grand right up to a whopping eight grand (although pricing is still to be confirmed). For the home market, however, there is a distinct possibility that Commodore may bundle



■ This is X-CAD Designer in action: experimentation with text entry.

both the A2000 and A500 with the low-cost version of X-CAD, X-CAD Designer. Module Two's X-CAD Designer is a hybridised, two-dimensional design and draughting tool which will be of interest to draughtsmen, designers and engineers alike. The package arrives in one of those very nice box folders that seem to be standard issue for serious PC software, but tend rarely to be used for Amiga products. Lurking inside the box you'll find a manual, a single-program disk and a dangle, which must be plugged into the second joystick port for the program to function fully.

Both versions of X-CAD are designed in a modular form, which means the software is built up from

three primary components: the X-CAD program itself, a set of runtime libraries and a set of command overlays. The advantage of this system is twofold. Firstly, system memory usage is kept to a minimum by loading commands only when they are required. Secondly, this modular form allows new commands to be added to the system comparatively easily by just adding extra command overlays and run-time libraries.

LAYER OF THE AMIGA

All professional CAD systems allow the use of layers, which means a diagram can be split up into several overlaying sections. X-CAD certainly isn't left alone in this area, since it allows the definition of up to 256 different layers, which can be displayed in any combination.

X-CAD Designer features all the standard drawing tools that you'd expect to find in a high-end package, such as splines, cross-hatching, grouping, line breaking and trimming. All are executed at a phenomenal speed. This speed is courtesy X-CAD's greatest asset, because it uses the Amiga's custom hardware to offer redraw rates over the times quicker than those of the most popular PC package, AutoCAD, running on a 80386-based PC-compatible.

Once you've 'designed' your masterpiece, you'll want to send it to paper. Luckily for those of us who can't afford pen plotters, X-CAD has extensive support for domestic printers. Even with a top-standard Hewlett-Packard, some very professional results can quickly be produced. When it is printing, X-CAD automatically builds up a smoothed representation of whatever is on-screen, producing the highest resolution printout that is possible on your printer.

It is very unusual to find an Amiga package that not only destroys the competition on the host machine, but also on all other comparable machines. This system's greatest assets are undoubtedly its high level of adaptability and sheer operating speed. X-CAD Professional running on a 580C5-based



■ While X-CAD Designer is ideal for most semi-professional applications, for some users X-CAD Professional is the only choice. X-CAD Professional gives responses at least two-megabytes of memory, but boasts a whole range of enhancements over X-CAD Designer. X-CAD Pro features full pattern help, an intelligent database, a complete programming environment and extensive batch processing facilities.

We haven't yet had a chance to take a look at X-CAD Pro... but even initial impressions it looks like being a top-notch, powerful package. Based on the foregoing professional market, it looks like the one shown here won't be a lily pond.

Amiga with the new super-high-res A2024 monitor could quite simply clean up the low-end CAD market. If Commodore's advertising department gets it right, I can see the Amiga and X-CAD becoming a formidable force. ■



X-CAD DESIGNER

£1199.95 Amiga 500/500+1MB required.
Includes International Ltd, 10000
Miles, London W11 3AA.
Tel 01 600 5052

CAUDENCES

CAD is one particular area of computing that has been revolutionised by the arrival of workstations such as the Amiga. Previously, the image that surrounded any CAD system was of a powerful graphics workstation costing many times the amount of pounds, linked to a super-high-res monitor screen that required a bank 50 credit to shift it. With the arrival of personal computers such as the Amiga, CAD has finally been brought within the reach of the masses.

X-CAD DESIGNER

Powerful graphics chips make the Amiga ideal for a budget CAD workstation.

JASON HOLBORN looks at the 'official' Amiga CAD package.

Apple's Macintosh has earned itself the rare honour of being regarded by many as almost a 'cult' computer. JASON HOLBORN checks out A-MAX, a new hardware add-on that will give your Amiga that old Mac magic.

BIG MAC & CHIPS

A Mac emulator for the Amiga certainly has taken a long time to arrive. ST owners have been happily running Mac software on their machines for over a year now. What has finally arrived is a hardware-based emulator that has a very simple objective: to turn your Amiga into a perfect imitation of a Macintosh Plus computer.

The first thing you'll probably ask yourself before considering forking out for any emulator is "what can this machine do that I can't already do on my Amiga?" Well, the answer to that question isn't as straightforward as it would first seem. It would be correct to say that there probably isn't a great deal that you can do on a Mac that you couldn't already do on your Amiga. So, why even consider a Mac emulator? Well the reason, put simply, is that Mac versions of software are often considerably more powerful than similar packages on the Amiga.

One area that the Mac excels in particularly is that of Desk Top Publishing. Compare Professional Page on the Amiga to even the simplest of Mac DTP packages and you'll soon realise why one out of ten electronic publishers prefer the Mac. The Mac WSP system, Finder, looks itself very well to heavily graphics-based applications such as DTP and although the machine lacks the advanced graphics hardware of the Amiga, graphics-based applications still manage to stream along at an astonishing rate. For an example, try comparing the redraw speed of Professional Page to that of a similar Mac package. The Mac has almost

completely captured the DTP market with its excellent range of professional DTP packages.

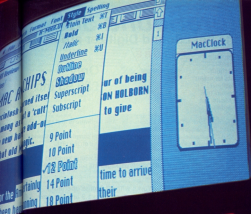
SETTING UP YOUR MACAMIGA

As is the case with nearly every emulator known to man, A-Max isn't a 'plug in and go' option. After you've found a source for the Mac ROMs (no easy task), the next job is to actually get the Mac's WSP operating system, Finder, over to an A-Max format disk. Because of stolen copyright restrictions, A-Max isn't supplied with the Mac OS. You'll have to obtain a copy of that yourself.

Once you've found a friendly Mac user who is willing to let you borrow a system disk, the real problem is how to get the contents of a Mac disk across to an A-Max disk. The Mac uses a special multi-speed drive with a disk format that cannot be read by any machine other than a Mac, so just inserting the Mac system disk into your Amiga drive isn't the answer that would be far too easy! If, however, you have access to a Mac second drive, getting Finder across is childplay. Because A-Max will allow you to plug any standard Apple drive into the A-Max cartridge and use it as you would with a real Mac.

Thankfully, unlike with similar units on the ST, this initial setting up is fairly straightforward and can be achieved in no time at all. Although Amiga drives cannot handle the multi-speed nature of Mac drives, they are highly adaptable and can be forced to read just about any format with the right software (DOS-MOS is a fine example: it does the Amiga





ALPHA SIMULATION
 0121 80 4000

Entertainment International
 The Mansions, London North Trade
 Centre, Hoxton, Essex H8 9J 6BA
 Fax 0206 847100

FutureSound 500™

Possibly the best Sound Digitizer around ?

Chris Cain in the April 89 issue of Personal Computer World said "The first thing to be said about FutureSound 500 is that its far easier to say than Pro Sound Designer Gold. It also looks a lot better. This merit won't sell too many units, but the exceptionally good hardware will."



Only
£89.95 Inc

Rex Haynes in the 17 June 89 issue of New Computer Express said "The hardware is first rate constantly producing the crispest samples we've heard."

The April 89 issue of ALI said "The manual contains tips on accessing the samples from C, and a full set of routines for using the samples from Amiga BASIC are supplied on the disk. Full marks for this!"

The June 89 issue of TGM magazine said "FutureSound is one of the best sound sampling packages available for the Amiga, and owners of IFF music packages will certainly find it very useful and at £89.95 its definitely worth buying."

- Records two tracks simultaneously
- Separate microphone input with built in amp
- Samples up to 42,000 samples per second, 20,000 samples per second per channel in stereo
- Sliding volume input control
- Ribbon cable attaches to parallel port, and can be used with a Data switch unit
- Easy to use software editor with many features
- Full support for all hard disks
- Supports RAM disks & VDO devices

- Works with all Amiga operating systems including 1.3 and the new FastFileSystem
- Monitor input through your Amiga from the Digitizer
- Uses expanded memory where available, up to 8MB
- Save your sounds in IFF format or as Raw Data
- Sample direct from your HiFi, CD player or Walkman
- Sampling rates of up to 56,000 samples per second are possible, if used with a 68020 processor and Aegis AudioMaster II software

Distributed By:

Applied Visions (UK)
Jersey Supreme Works,
538-546 Whippendell Road,
Walford, Herts, WD1 1GN.
Tel: 0923 818070

Available From

H.B. Marketing Ltd Brooklyn House, 22 The Green, West Drayton, Middlesex UB7 7PG. Tel: 0895 444433	SOL (UK) Ltd Unit 10, Ruckley Corner Ind Est, Balsup-Py-park, Sibson, Kent. DA14 5SS Tel: 01-3080088
---	--

And all good Amiga Dealers



This ad created by Advanced Technologies DTP System Call 0923 817548

to read 800 and Apple format disks). Special formatting software is provided for the Mac that allows the creation of a mini-transformation that can be read by both the Amiga and the Mac. This disk only has a 200K capacity and so once you've got the Mac desktop on-screen, you're strongly advised to transfer a comma package across to that larger application can be brought across into a Mac.

To get Amiga up and running, there are two files that must exist in your 8-Max boot disk, namely the Apple Finder and System files. These two files between them enable the Mac operating system and desktop environment. On some versions of the Mac OS, you'll probably have to remove as many fonts and desktop accessories as you possibly can so that both files fit on the limited capacity of the transfer disk.

Once both the System and Finder files are on your transfer disk, Amiga will load up and your typed Mac will spring to life. The next step is to format a Mac disk from within 8-Max and copy both files to this disk so that the mini-transfer-disk can be used again.

SOFTWARE COMPATIBILITY

ReadySoft, the producers of 8-Max, claim that 8-Max will run most productivity software without problems. They've managed to test several major Mac packages such as MacDraw, MacPaint, MacDraw, PageMaker 2 and the public domain common package Red Alert, all of which worked without any problems. Amiga will also support HyperCard and the new Rubikcube, although you'll need at least a megabyte to take full advantage of these.

What Amiga won't run is any software which separates the Mac operating system routines and files to hardware directly. The kind of



■ This is the 8-Max unit itself, an unusual-looking grey box that plugs in the Amiga's external drive port.

software that will definitely not run under 8-Max includes the vast majority of Mac retail software, and quite a few Mac games software. The good news in the case of the Amiga Format team is that Spectrum Hobbyist's excellent Mac version of Tetris works fine!

SCREEN SCENE

On a standard Amiga using the current release of Agnus, Mac emulation can operate in both high-res interlaced and medium-resolution screen modes. 8-Max also provides full support for the new enhanced chip set (if we ever see it) and the new high-res mode monitor, the A3004.

For those of you without either ECS or the A3004 in 90.9% of Amiga owners, the rather annoying flicker of the Amiga's display in these mode makes it almost unusable, so after the initial attraction of high-

res, you'll probably end up using Amiga in medium-resolution mode.

When using ECS with a multi-sync monitor, Amiga will provide a very attractive working environment. With the A3004, the Amiga screen resolution rises to an impressive 1024 by 800, virtually the same as that offered by a 25000 Macintosh 2.

HARDWARE CORNER

The 8-Max hardware consists of a long, grey box that plugs into the external drive port. As well as providing a pass-through connector for external Amiga drives, the 8-Max hardware provides a connector for an Apple external drive. Unfortunately, Apple external drives (in fact, Apple hardware items in general) are not particularly cheap, but if you intend using Amiga seriously the investment will be worthwhile because it will allow you to read Mac disks directly.

Unfortunately, the current release of 8-Max doesn't support hard drives, although plans are afoot to include this in future versions. For some applications, hard drives are a vital necessity, so the lack of support could prove to be something of a problem.

All Macintosh emulators require access to Mac ROMs, and Amiga is no sole exception. Unfortunately, 8-Max does not come as standard with the necessary stream of clones, so you'll have to purchase them separately. Amiga will accept both the old 68K ROMs from the original Mac and the newer 128K ROMs from the Mac Plus. The larger ROMs have several advantages over the older

68Ks in that they run faster and are able to handle a higher proportion of the newer Mac software. If you have an accelerator card in your Amiga, you must have 128K ROMs because the smaller ROMs are not compatible with these more advanced processors.

Installing the ROMs into the Amiga cartridge is child's play (although removing them from a Mac is a nightmare). With them installed, your Mac is ready to roll.

Obtaining Mac ROMs can be a difficult task: most Apple dealers are not keen to hand them out. Unfortunately, this means that UK-based suppliers who are willing to admit the fact that they supply Apple ROMs are very hard to find. Entertainment International are currently lacking at the possibility of supplying ROMs as well as the 8-Max unit itself.

CONCLUSION

Amiga certainly is an impressive piece of hardware. It is highly compatible, and the inclusion of ECS and A3004 graphics modes is bound to earn Amiga more than a few friends. The only negative aspect of Amiga is the lack of hard disk support, which makes professional use of the system questionable. Many users will also complain about the inability to subload 8-Max from hard disk with the new 1.3 auto-loading ROMs. Hard drive support shouldn't be hard to implement. Hopefully, future releases of 8-Max will address this, but this is one of the few emulators available on any machine, and is not only great fun to own, but also very useful. ■

■ In the 8-Max Special



■ Even the MacApp accessories, like the Mac Disk, are supported.

This is a journey into sound: a guide to what the Amiga can do musically. You don't have to look out on lots of expensive goodies, and it doesn't matter if you're afraid to mess up a dropcap and can't read a note. One of the main points of computers and music is to make things easier, not harder. With only a modicum of effort, you can knock up very respectable musical works. Here's!

ALL THIS, AND MORE

First things, in its naked, straight-forward way, Amiga will perform many musical ideas. Finally, it will **CREATE** sound entirely of its own by loading the internal sound chip. This effectively means the computer instantly becomes an instrument, a synthesizer, in its own right.

Secondly, it **RECREATES** sound; for instance, it can take samples of noises from the real world, so that genuine drum or voice notes, or even human voices can be built into a piece of music. Similarly, it can store, change and reproduce all manner of artificial synthesized sounds.

Thirdly, it can **ORGANIZE** these sounds, building up individual notes to create a piece of music in a role that is known as sequencing. And at this without a bother in sight. Many Amiga music packages offer all three of these options under one roof, whereas more specialist programs will make extensive forays into just one area.

MUSICAL MAYHEM

Music Editor Jon Bates explains that with no talent, no expensive equipment and one Amiga, you too can make incredible music...



to is a journey into sound; a guide to what the Amiga can do musically. You don't have to take out an iron of expensive guitars, and it doesn't matter if you're about as musical as a dog and can't read a note. One of the main goals of computers and more is to make things easier, not harder. With only a modicum of effort, you can knock up very respectable musical works, forever.

ALL THIS, AND MORE

Four Amiga, in its sound, thought-for-these-days state, will perform these musical tasks. Firstly, it will **CREATE** sound entirely of its own by mimicking the natural sound chip. This effectively means the computer instantly becomes an instrument, a synthesizer, in its own right.

Secondly, it **RECREATES** sound; for instance, it can take samples of noises from the real world, so that genuine drums or violin notes or even human voices can be built into a piece of music. Similarly, it can store, change and recreate in manner of artificial synthesized sounds.

Thirdly, it can **ORGANISE** these sounds, building up individual notes to create a piece of music in a job that is known as sequencing. And if this without a button is tight, many Amiga music packages offer all three of these options under one tool, whereas more specialised programs will make extensive forays into just one area.

AND MIDI MAKES SIX

MIDI, the Musical Instrument Digital Interface, is a common language that enables the Amiga to perform all these functions with electronic instruments. With a synth, for instance, it can create sounds to be reproduced from the keyboard as well as storing, recording and editing these sounds; the sounds are called notes, so this function is known as editing. Particularly important with MIDI is the sequencing of sound sequencing. As a sequence, the Amiga can, in effect, record music played on electronic instruments, and edit the music so that notes are chopped out, play the notes back via the instrument. Moreover, MIDI allows for 16 channels, so 16 separate instruments can go into one song, and the sequencer allows sections of a piece to be looped, repeated and generally messed about with.

The usual MIDI interface used the serial port of the Amiga although there are an abundance

of plug-in boards which will give you permanent MIDI ports. MIDI travels at 31,250 baud, which is quite fast enough for most purposes. And the beauty of MIDI and the Amiga is that the standards are all one standard.

INTERNAL EXPLORATION

First off, the internal sound chip. A quick flick to the back of your Amiga book produces a picture of the sound chip 'Trials', for nearly enlightening, but it gives you a rough idea of the chip's capabilities. It can produce four sounds simultaneously and spread them between the stereo left and right ports. It has a range of nine filters - one from 8 to a pass - and the claim about using amplitude and frequency modulation means it can create sound from both simple and more complex waveforms. Obviously the way forward is to seek some reasonable software to control it, so a selection of the most commonly available packages follows.

INSTANT MUSIC

Perhaps the most 'entry level' program is Instant Music. For 'entry level', read 'absolute basic beginner'. Instant Music is rather a neat composition program that doesn't really require any musicality on behalf of the user. It uses a graphic score, a series of coloured ovals relative to the length of the note which would pass on screen; a different colour represents each instrument, and it comes with a full complement of sampled instruments. Actual composition is performed by dragging and placing labels around the screen; the higher up the screen, the higher the note. If you drag the note out from left to right it becomes longer. Notes occurring at the same time form a chord, and every movement of the note on screen sets and fixes the pitch and onset of that note. If you are familiar with traditional notation this is a really slow way of working, but as a technique, such big words approach to music it works very well.

The favourite feature is 'Master Jam' which everybody who has had a go with this program becomes addicted to. This selects the backing and style that you want to play with and away you go. By clicking the mouse and moving it around the screen it manages to play only those notes that sound in time and it stops keeping with the backing; a form of 'artificial intelligence' that should be a compulsory requirement in the future and fingers

of adherents to the 'Woody' Woody School of 'Sister Turner'.

MUSIC STUDIO

If you can live with the fact that your sound files will not be compatible with any other programs, a decent sequencing and sound creating package is the Amiga Music Studio, which has a very good instrument design page. The program comes with fifteen preset sounds which can be subjected to a whole host of alterations: harmony, envelope shape, sustain, vibrato and tremolo, and stereo position. Not a bad introduction to the world of sound for sound creating.

It offers you a choice of either graphics or traditional music notation to sequence the notes. Graphics is an alternative to traditional music notation that uses a set of shapes to represent notes. The usual way this is done is to have the pitch of the note running from the bottom of the screen to the top and the time/length of the note running on the other axis from left to right. With Music Studio each instrument is given a separate colour. You can both add lyrics to your efforts and it supports the full 16-MIDI channels in and out.

PAULA IN PARADE

There are several Public Domain programs that put you into the Paula chip in varying degrees. There will be an article in the not too distant future covering the musical aspect of PD software. But for now, you could check out Fish Stick V4 which has an 'Audio Synthesis' utility.

SAMPLING

Assuming the technical details for the moment, sampling is the way in which sound is encapsulated digitally. The most critical part of this, as far as you care go, is the actual conversion from messy electrical impulses to digital data, and vice versa, known as the busness. At ABC Technology's digital converter and DAC box can work that one out.

Most other makers require hardware to convert sound to digital and back again, but the Paula chip is very efficient at converting digital data back to the stuff that makes your speakers work. It would be not for the want of the truth to say that the 'best' capabilities of the Amiga rest all but the most expensive - as in coming up to £1000 - of professional samplers. Plus with sound editing software you can actually see the sound and play around with it.



HOMEBASE

You've got your Amps, sorted out various bits of software and maybe a synth into the bargain. Now all you need to do is to face yourself in true perspective and then channel it to tape. First thing is to get some decent amplification. The Amps stereo output are of the phono type, which by a happy coincidence happens to be the same as most hi-fi amplifiers, so as long as the amp can accept an external source it should be okay, you're okay.

The sort of sound that that is most happy to reproduce themselves. A decent set of speakers will improve a hell of a lot whereas a decent one slaved through a rubbish set of speakers will sound pretty dull. If you have neighbours who will not appreciate a few hundred watts of basses and less in cutting the headbashed of the best of 4 are then maybe a good pair of headphones is a wise money spent in these areas of love a bit of frustration later as what you should be to get is a true picture of the sound in all its glory. If you don't, then when you transfer it to tape and use it sometimes with a decent system, your grand efforts will start to sound like a cracked telephone line to Greece with all sorts of unhelpful bumps and shudders.

There are various other bits - no, lots and lots of other bits - that can be thrown into the state of sound recording. In fact there is scope for a complete house on just that in some future time. The bottom line for anything is a mixer, tape deck or effects and it is essential that it doesn't add any significant amount of noise into the system. If you must be using cassette, consider how a the local garage along with a dirty old cassette player the used to double as a tape recorder you'll get to regularly hear me when the result sounds like it was recorded on the way of a 747 at 30,000 ft. ■

Now, the factor the prices of all the packages mentioned in the article, and names, addresses and phone numbers of suppliers.

AMIGA MUSIC STUDIO
£24.95, Accusoft, Box 98,
Maro Farm Rd, Reading, Berks,
RG2 0BA 0734 339666

INSTANT MUSIC
£24.95, Electronic Arts, Lough
Barnes Centre, 11/19 Baker
Rd, Lough, N. Sough, Berks,
0753 444425

something that is a real pain to achieve on a piece of dedicated sampler hardware.

Since there is also a common standard for storing data (IFF), it follows that many sound sequencing and creation programs come with sampled sounds all ready to play. My sample can usually be loaded into another piece of suitable software. There are also programs about that will let you arrange these sounds into pieces that can subsequently be stored as a module to be used in games, or wherever.

Although you can easily enjoy the benefits of playing back pre-recorded samples, making your own will require some study. The three main contenders are the Pro Sound Designer, AMOS, and the Deluxe Amps Samples. Compatible with these are MIDI players that allow the samples to be played from a MIDI keyboard. However, ST-Amps Format marketed sampling hardware in kit form in issue 11, May 1989. This is available from Haggins who will also sell you the sampling hardware, Perfect Sound, for a ridiculously low sum. It's worth that for a low-cost entry into sampling! There will be a sampling special in a coming issue, but for now check Pages 11 and 13.

MIDI STEP BY STEP

Two good MIDI programs are Amps Score, which contains sections in all the subjects mentioned: recording sound, altering sound, creating songs and handling MIDI data; and Deluxe Music Construction Set, which is a step-by-step sequence. You insert the notes, individually defining length and pitch for up to eight parts, using a combination of up to four of the internal voices and four of the external MIDI channels, although you can if you wish use up to eight MIDI channels as well as the internal voices. It has a full palette of notes and signs and the graphics are self-explanatory. Sound editing features are decent, however.

MIDI ON THE MARCH

The ball really starts to roll when we start to consider multiple

sequences of the various variety. These will let you play your tunes in sections, and store them for access via other graphic routines, traditional notation or at worst a data stream. Having sorted out the major categories you can then call some lesser software routines to help you correct bad notes and timing problems, which is known as Quantising. Once all at to your satisfaction, you can organise the sections that you have recorded into a full-blown arrangement.

The list of dedicated MIDI sequencers for the Amps gets longer each month and so I won't bore you with the details. However there are two programs soon to be available which will soon go up the list for the Amps. The first is a version of one of the most successful of all MIDI sequencers, the Steinberg Pro 24, only available up until now for the 386, I think this is a measure of how thriving who are a German software house, one thing. Although they are starting to make inroads into the American market which is awash with PCs, they see the way forward on the Amps, and not the PC with its problems of no standard interface busless you count the ultra-expensive 'industry standard interface' of the Roland MPU401 at £250 a throw! The Steinberg Pro 24 cost exactly that, £250. Watch this space for an in-depth review of what is promised to be not merely a customer but also an update.

More pressing still is the modular program from the San Francisco based MusicWorld who are launching Music X. The modular program does all sorts of sequencing with several different types of editing features, all very professional, as well as full MIDI features. While all this is running you can also call up other modules which are resident in the machine at the same time. These will do voice editing for various synthesizers and store them in libraries, which can be called in at any given moment into the sequences - and will also handle voice creation and sample editing. The demo versions seem to be very thorough, a full review should be possible soon, but meanwhile take a peak at the news pages.

ATHENE

**PUBLIC
DOMAIN**

16 Stoke Road, Gosport,
Hants, PO12 1JB (Dept AF)
Tel: 0705 511438

24 Hours

NEW AMIGA, PUBLIC DOMAIN LIBRARY

SPECIAL STARTER PACK 4 LATEST DEMOS DISKS only £8.50 inc.

Prices From £2.50

Please Send SAE For Latest Catalogue Of Our Ever
Growing Library or Call

SPECIAL OFFER STAR LC10 (U.K. Model)



1.5" DS/DD 135 TPI

Un-Branded Maxell/KAO

ONLY .89p Each inc.

Strongly Recommended

For Amiga Users

Lifetime Warranty

Standard Bulk

Only .89p Each inc.

Sony Bulk Disk 97p each inc

Minimum Quantity 10

Please Add £1.00 To All

Orders. Or Free P&P Orders

Over 30 Disks.

5.25" DS/DD 48TPI

Unbranded

Only .37p Each inc.

Minimum Quantity 25

Lifetime Warranty

Other Brands Stocked

Prices Too Low To Print

Next Day Delivery £5.75

Quantity Discounts Please Call

THE MEDIA CENTRE

16 Stoke Road

Gosport, Hants, PO12 1JB

Tel 0705 511438 or 0705 511448

Fax 0705 511446

SONIC AUDIO

Thanks to our sister trading
company, Sonic Audio,
we now have a
range of high quality
music software, to
suit the computer
user.



Thanks to our sister trading
company, Sonic Audio,
we now have a
range of high quality
music software, to
suit the computer
user.

AMIGA MIDI GOODIES

MIDI Audio 1.0 (100k)	£12.95
MIDI Audio 2.0 (100k)	£12.95
MIDI Audio 3.0 (100k)	£12.95
MIDI Audio 4.0 (100k)	£12.95
MIDI Audio 5.0 (100k)	£12.95
MIDI Audio 6.0 (100k)	£12.95
MIDI Audio 7.0 (100k)	£12.95
MIDI Audio 8.0 (100k)	£12.95
MIDI Audio 9.0 (100k)	£12.95
MIDI Audio 10.0 (100k)	£12.95

LOOK AT THIS!

Thanks to our sister trading
company, Sonic Audio,
we now have a
range of high quality
music software, to
suit the computer
user.

I NEED UPGRADE BOARDS - COMPLETE

APC or with clock £110

NEED ADVICE ON MIX?

GIVE US A RING OR WRITE

Thanks to our sister trading
company, Sonic Audio,
we now have a
range of high quality
music software, to
suit the computer
user.



MURDER

512K EXPANSION
BOARDS WITH CLOCK

£109 AMIGA
inc. VAT
SPECIAL OFFER

01 760 0274

Please call for availability

Partners in software with software for all popular machines & development
costs £10.00 inc. VAT (minimum order £10.00)

SABRE COMPUTER DISCOUNT CENTRE

Unit 10, The Parade, Fleet Place, Brighton, BN1 1AA

Please contact your local dealer for details

Name

Address

Postcode

Phone

Telex

Fax

PASSPORT...STEINBERG...C-LAB...SOUNDBITS

miditech

**MIDI SOFTWARE?
WE SPECIALISE!**

Over the past year we have helped hundreds of people to start
making music with their Amiga. So whether you're after an entry
level sequencer or a professional score printing program,
we will have the right software for you.

CALL OR WRITE FOR OUR INFO SHEET OR TO
ARRANGE A DEMO.

TRACK 34

Our best selling sequencer with real-time recording
plus notation editing, a great price of software for only
£75 or £105 with Data interface.

NEW LINE

Practical Midi Handbook

100 pages on everything you need to know about Midi.
ONLY £5.95 PLUS 50 PENCE P&P

MUSIC X

What's the wait? Call us to find out!

**BEST PRICES IN LISTS ON DTP, CAD, GRAPHICS
AND BUSINESS SOFTWARE PLUS AMIGA
AND AMIGA HARDWARE**

**MIDITECH, THE COLOSSEUM,
PORTLAND GATE, LEEDS LS2 3AW**

0532 446520

Access & Visa Welcome

MAIL ORDER AND TRADING PACKAGES AVAILABLE

AT&T AMIGA, MAGNETOSH, INC. DR. T. HYBRID ARTS

VOYETRA, INTELLIGENT MUSIC, PANOPOL, SOUNDQUEST

© 2000 Blackwell Science Ltd, *Journal of Internal Medicine* 247: 105–112

REAL-TIME SOUND PROCESSOR

Amiga sound samplers come in a multitude of different shapes and sizes. JASON HOLBORN checks out a sound sampler with a difference.

The Real-Time Sound Processor takes the Amiga's sound sampling capabilities that set further to using it not for straight sampling, which until recently had been the sole application, but as a powerful sound manipulation tool. If you've ever used professional synthesizers such as the Roland D-50 super-synths or Yamaha's Y50 keyboard workstation, then you're probably already familiar with the concept of sound processing.

When a sound is produced, feeding it through a sound processor can enhance the sound by adding new characteristics to it. For example, it events will add a 'woomy' feel to a sound, as it sounds as if it was played in a large hall.

MANIPULATING TIME

The Amiga-based sound processor takes an external audio sound signal such as that outputted by a CD player, 441 or synthesiser, samples it at an astounding 50 KHz and then manipulates it before it is emitted through the Amiga's stereo sound outputs. All this activity takes place in real time, which actually allows the user to manipulate a continuous sound signal.

What you get for your money is the actual sampling hardware that itself

also functions as a conventional sound sampler if you're a software package such as *Amiga AutoIllustrator* which plugs into the parallel port, a spreadsheet manual, a single disk containing the sound processing software and a rather large dangle which must be plugged into the second parallel port for the software to work at all. I've never been a great fan of dangles and on a multitasking machine such as the Amiga where several packages can be running simultaneously, they can be a real pain.

W-H-MINUTE

The package provides certain preset sound manipulation tasks such as Echo, Reverb, Delay, Range and both AM and FM modulation. As well as these pre-sets, you can also configure your own effects using the extensive software controls and then store them in any one of 127 preset slots. Playing around with the supplied presets can be a lot of fun in itself, particularly if you've got a microphone that you can link up to the sampling hardware.

One unique and potentially very useful feature of the Sound Processor is the ability to change the current preset through MIDI control. This is achieved using the same MIDI 'program change'

messages that are used to change the sound to be played on a MIDI synth. This could be very useful when used in conjunction with a sequencer as it would allow you to sequence to control not only the operation of your synth, but also the sound processor.

AMBIGUITY

For the Amiga user who also enjoys toying around with their home keyboard, the Sound Processor provides a useful addition to a music-making arsenal. The unit is undoubtedly flexible and costs considerably less than even the cheapest of professional effects units, but unfortunately it fails to deliver the kind of sound quality that serious musicians demand. This isn't really a fault in the sound processor itself, but merely a limitation of the Amiga's hardware.

For serious, user, sound processors, need at least a 16-bit/48K resolution, which is four bits more than even the Amiga can handle. Without these extra bits, the sound produced can become muffled and hollow, which really isn't acceptable for serious music making. If the unit featured a 16-bit/48K sampling resolution, then it would not only be a contender of an Amiga product, but would also leave quite a few professional units out in the cold. If you want to use a sound processor seriously, you're probably best advised to fork out the extra cash and buy a dedicated effects unit.

SAMPLE THIS!

The Amiga-based design offers a great solution for the creation of recorded masterpieces, using either the Amiga's powerful versatility or, if you have the necessary equipment, through MIDI sequencing. Another area of sound creation in which the Amiga is particularly capable is that of sound sampling, as if you like sound digitising,



REAL-TIME SOUND PROCESSOR

©1989 R & B Amiga.

100 Marking, (Overlaid) House,
20 The Green, Westbury, Wiltshire
WSS 44435



■ The sampling hardware plugs into the socket port, accompanied by a large dangle in desktop Port Two.



■ The Real-Time Sound Processor offers twenty preset effects including echo, reverb, range and delay.

It's so big! Workbench returns with the biggest and best collection of hints, tips and tricks for your Amiga, and JASON HOLBORN answers your problematic prose through the Workbench Helpline.

MONEY GRABBERS

Please, please, please, can you help? I've just spent the last six months using £250 to splash out on a colour digitiser. There are several available that all seem to offer similar facilities: which one would you choose? **Michael Nash, Cheshamford, Essex**

The choice of the right video digitiser really depends on what you intend to use it for. From your letter, it seems obvious that your decision will be guided by the extent of colour support offered by digitisers. If you aren't particularly worried about the digitiser being able to grab images at any great speed, then NewTel's Dig-Max 3.0 unit is still one of the best (and cheapest) colour digitisers available.

If you do want to digitise colour images, you'll also need to look out for a black-and-white video camera. Surprisingly, these cameras can be picked up quite cheaply from most Amiga dealers (by the Amiga Centre Scotland on 031 587 4340) for both Digview and the video camera.



LOST WITHOUT A KEYMAP

After purchasing issue 11 of your parent magazine, 3D/Amiga Format, I tried using the SetKey utility that was included on the free download. After a few seconds of disk access, the SetKey window appeared, but apart from the menu bar nothing else was displayed. When I tried to quit out of SetKey by double-clicking on the 'window close' gadget, the machine just locked up and I was forced to reset my Amiga. What am I doing wrong?

Dr Lawrence Gogort, Hants

There does indeed seem to be a problem with the SetKey utility, which had us stumped for quite a time. The problem lies in the fact that the program was written for the American market and therefore expects the default keyboard setting (not using the CUI command) SetKey to be used. If you boot your Amiga with the British version of Workbench, the keymap is automatically changed to the UK configuration which confuses SetKey.

To get around this, you will need to change the current setting at the CUI prompt by typing 'SetKey usd'. You can now use SetKey without problems.

After you have finished using SetKey to change back to the British keyboard configuration,

and go back to the CUI and type 'SetMap gb'. Thanks to Phil Warren and Chris Morris of Cyberbook in Kent for writing that one out.

ARE YOU PRO PROBLEM?

My reason for writing is twofold. Firstly, I am soon to purchase a memory upgrade and a Star LC 10 colour printer for my Amiga. I am also hoping to purchase a word processor and a colour GPF package, aiming to spend about £150 at the most. I've been advised to buy Protext and Comic Setter, are these any choices? My second reason for

writing is to help other Amiga users obtain ridiculously cheap public domain software. I got all my PD disks from Ray Burfrost, a dedicated Amiga fan who runs his own PD library. His PD disks often retail as low as 50p - quite an eye opener when you realise that other companies are charging around £18. Could you please print Ray's phone number so that other Amiga owners are able to take advantage of Ray's generosity. Ray Burfrost can be contacted on 0703 785660.

Dr Way

Harpenden, Herts

As for an Amiga word processor, go. Protext is without doubt one of the best available. The program is powerful, fast and fairly stable. Where colour GPF is concerned, Comic Setter isn't really the ideal choice as it is rather limited for serious GPF applications. You would probably be much better off looking at the extra disk for Professional Page.

Can we print Ray Burfrost's phone number? Well, consider it already done!

HARD FACTS

I am thinking of buying a hard drive for the Amiga 500. I have looked through various magazines and they all seem to tell for around £480 for a 20 Mb drive. Which is the cheapest?

I have already seen Macintosh emulators for the ST, do you know of any similar units for the Amiga?

Professional Page currently the only professional-standard GPF package on the Amiga to date, but watch out for PagePerfect.

Designed by Guy H. J. - 4-bit disk, 8-bit keyboard, 16-bit screen

Professional Page is the most powerful and complete GPF package available. It offers a wide range of features, including a powerful text editor, a powerful table editor, a powerful bar chart editor, and a powerful line graph editor. It also includes a powerful font editor, a powerful color editor, and a powerful window manager. Professional Page is the only GPF package that can handle all these tasks with ease and efficiency.

Features:

- Powerful page layout capabilities: Professional Page offers a wide range of page layout options, including margins, line spacing, and paragraph indentation. It also includes a powerful font editor, which allows you to create custom fonts for your documents.
- Powerful table editor: Professional Page includes a powerful table editor, which allows you to create and edit tables with ease. It supports a wide range of table features, including cell merging, cell splitting, and cell formatting.
- Powerful bar chart editor: Professional Page includes a powerful bar chart editor, which allows you to create and edit bar charts with ease. It supports a wide range of bar chart features, including bar color, bar width, and bar spacing.
- Powerful line graph editor: Professional Page includes a powerful line graph editor, which allows you to create and edit line graphs with ease. It supports a wide range of line graph features, including line color, line width, and line style.

Professional Page is the only GPF package that can handle all these tasks with ease and efficiency. It is the perfect choice for anyone who needs a powerful GPF package for their Amiga.

WORKBENCH

One of the most confusing aspects of using the Amiga is that of workbench icons: it seems that only a privileged few really understand this arcane art. Luckily, if you have Workbench 1.3, you will never need to get your hands dirty with all the complex jargon that Amiga technicians have to endure, because Commanders have seen their way clear to provide a handy little tool which takes the pain out of icons.

The workbench little program in question is the **IconX** command that you'll find in the "C:" directory of your Workbench 1.3 disk. IconX allows you to run any program from Workbench that can actually only be run from the Command Line Interface (CLI).

An advantage of using IconX is that many programs (Zellkey for example) need some form of setting up before they can successfully be run. The Zellkey program is a fine example, as it needs the current keyboard map to be set to use before it can be run. This is easy to do from the CLI but is almost impossible from Workbench. However, this is easily achieved with IconX.

IconX works by reading an ASCII batch file that contains all the commands that you would usually enter at the command line. To use IconX, create a batch file using a standard text editor and then find a data file that has an icon (a DPaint saved picture, for example). Copy the associated ".info" file across to your text file, giving it the same filename as your text file plus a ".info" extension (if your text file is called "JOHN", the icon file would have to be called "JOHN.info").

Next, using the Workbench menu's "INFO" option, change the default tool to "ICONX" (if you used a DPaint icon then it will probably already contain "DPAINT" in the default tool field) and then select "SAVE". Now when you double-click on the icon, IconX will be loaded and it will proceed to execute your batch file. Probably easier than falling off a log!



First, create your batch file. Here, we've created a simple batch file that deletes all ".BAT" files from a user-specified directory.

MEGA BUCKS FOR MEGA TIPS!

Workbench just wouldn't be Workbench without a regular collection of the very best tips and tricks for your personal. If you have a groovy little tip/trick, then why not share your workbench knowledge with your fellow Amiga user by sending it in to Workbench.

"What's it worth?" these you ask. How does the prospect of winning £30 sterling appeal to you?

We want tips on absolutely anything; getting the most from a particular software package, hitting the hardware from GEMOS.

AmigaBASIC tips, anything!

Send your tips and tricks to:

AMIGABENCH, AMIGA FORUM, 4 QUEEN STREET, BATH BA1 1JA.



Just change the DEFAULT FOLDER to 'IconX' and you're away.

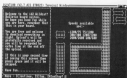


Having changed the default tool using the Workbench INFO option, our newly modified, modified batch file is ready and in full swing.

BUSY BBS

For those of you with modems, here's a small selection of bulletin boards that cater for the Amiga user in one form or another. We've been having a great deal of fun recently, running up the company's phone bill and discovering the darker delights of certain boards: which will remain nameless...

Board Name	Phone No.	Speeds	Hours
BAARS	021 444 8872	v20/20/23k/20	24 Hrs
TABBS	0832 880883	v20/20/20	8pm-8am
02	0865 760771	v20/20/23k/20	24 Hrs
01 FOR AMIGA	01 377 1558	v20/20/23k/20	8pm-8am
AMIGA BOARD	0288 870488	v20/20/20	8pm-8am
53ABBS	0793 661776	v20/20/20	24 Hrs



The old bulletin board is run by a very well-known character the programmer of Newson's Keyboard editor, Tony Cooper.

PD UPDATE

Quality Amiga software needsn't cost an arm and a leg. Take a trip down to the PD libraries and you'll discover a whole brave new world of exciting software. JASON HOLBORN takes a look at the PD 'best-sellers'.

TOP 10 PD

GTS TITLE

- 1 **Star Trek** (1 Mb)
- 2 **Chet Solace Shareware Extravaganza**
- 3 **TBAG No 16**
- 4 **Fish No 193**
- 5 **SACC No 33**
- 6 **Fish No 188**
- 7 **TYPE No 12**
- 8 **TYPE No 3**
- 9 **TYPE No 11**
- 10 **Pixel Workshop**

Choosing the right software among the vast number of PD disks available can be a difficult task. To help you, Amiga Format, in conjunction with **GEORGE THOMPSON SERVICES**, will be bringing you a regular list of the month's Top Ten best-selling disks.

Disk numbers are all very nice, but what do they have to offer? To help you choose the disks that will be of greatest interest to you, this month's PD Update is devoted entirely to our exclusive Top Ten.

STAR TREK

Ever since Poptart released an Alan ST version of their Star Trek game, Amiga owners have been crying out for a version for their machine. And rightly so. When it finally arrived, it offered

the same fascinating gameplay, fantastic graphics and sound, but better still it was PD.

The Amiga PD version of Star Trek was written by an American PD enthusiast using the animation scripting language 'The Director'. The game gives you control of the Starship Enterprise as you journey through space (the final frontier etc), you communicate with the game by issuing commands to the crew of the Enterprise, namely Kirk, Spock, Chekov, Sulu, Shura and Scotty.

The game comes on three disks and requires at least a megabyte to run. Although not absolutely necessary, a second disk drive is also a definite must if you don't want to suffer from 'Macintosh style', Star Trek is available only from George Thompson Services for \$5.95.

That lets you peek at the inner workings of your Amiga, and B&Wbits, the highly-regarded first spinoffs utility. Gamersayers aren't left out either, as the Chet Solace disk also includes a couple of highly-rated games: such as Egyptian Run, a very satisfying motor racing game.

TBAG 16

The Tampa Bay collection of disks are renowned not only for content, but also for beautiful presentation; among the best to be found in any collection.

ULPANEL - UPanel is a more just package designed for young children. What is more the company of CPANEL, it's a lot of fun. INTRODUCER - Introducer is a very little program that allows you to produce your own demos, com-



■ Presentation is as important as the disk's contents with TBAG.

CHET SOLACE SHAREWARE EXTRAVAGANZA

The Chet Solace Shareware Extravaganza is a disk jam-packed with the very best in public domain software. If you only ever intend buying one PD disk, then this should be the one to go for.

All the programs on the disk are crunched using WAHIT, to allow as many programs to fit on the disk as is possible. Whether you're into games, serious applications or just playing around with your Amiga, then Chet Solace has at least one program that will appeal to your tastes.

Programs include the infamous Porter Animator, that gives you mouse pointers a new lease of life. Using Porter Animator, you can design your own animated pointers, or choose from a large collection that are included in a library on the disk.

For the techies among you, there's a disk accelerator, a general system info display program

plete with graphics, digitised music and even the overused scrolling text.

WPCPU - This upgrade to the popular WPCPU utility allows a GUI window to be opened not just on the Workbench screen, but on any screen properly open.

CU MEMO 1.2 - CU Memo is the number one Workbench CU utility. CU Memo allows you to perform CU operations from a friendly, intuitive-based environment (the DeFonion you remember). CONSOLE - Console allows you to 'console' any mouse pointer definition and have the results stored with a file. And double-click on the icon and your mouse pointer will take on a new guise. With browser, you can build up a library of all your entrepreneurial favourite mouse pointers.

X SERIES - The 'X' series consists of three of the most popular PD utilities from the famous PD programmers, Steve Isaac. The three X programs included on this disk are Xmouse, Xedit and the excellent disk editor, DiskX.



■ "Oh, Spock, you can drive." "The engine won't take it, Captain."

PLANET - Here's a great program for all you would-be planetary architects. Planet takes any ITF picture and raps it into around a 3D sphere to produce some startling pictures, complete with full light source shading.

FISH No 163

The First Fish collection of disks is probably the most well-known and most popular collection of Amiga PD disks. The collection currently stands at over 200 disks and their contents are highly regarded by both users and software developers alike.

BANK - Is your bank account a mess? Then you need Bank's Banking, goodie. Bank is a powerful little personal finance program that will allow you to keep track of your bank accounts. The program is written to take full advantage of the Amiga's windowing environment, intuition, and is very simple to use.

CONSOLE - Console is a fun interpretation of the "Console War" board game that was so popular a few years back. The idea of the game is to get a continuous line of five counters in any direction.

MOUSE - Mouse is a powerful little mouse accelerator program, complete with hot keys. If you've never used one of these programs, then you just don't realize what you've been missing.

MEMORIS - Have problems with your memory? I don't know, I can't remember! Memor is a little object module that, when called, gives you a complete run down of all memory allocation/deallocation performed by your program.

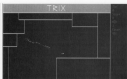
POPCON - If you have access to a PC compatible that uses 3.5 inch disks, you'll probably want to get this screen to your Amiga at some time or another. POPCON patches the PC disk that came in

your Extras disk, to allow them to operate with the Amiga's three-and-a-half inch drives.

VIEW - The "official" text viewing utility. View, as provided on the 1.3-enhancer pack, is rather basic to say the least. View is a fast and flashy text-viewing utility that makes an ideal replacement for the official offering.

SACC 23

The Secretaries Amiga Computer Club, like TMAG, puts a great deal of attention not only to a disk's contents, but also to its look. The



■ TRIX, from SACC 23, is heavily based on the old Dragon 32 game disk.



■ Blue Moon is an intelligent and enjoyable little 'Solitaire' game from Secretaries Amiga disk number 23.

SACC collection uses a special utility that allows up to eight colours to be used on the Workbench screen, which gives SACC disks a very impressive and individual look.

CARD FILE - Card File is a very simple but very useful database program that is written entirely in compiled basic. Card File is simply allows you to locate large

amounts of information with ease.

MEMO - Everyone needs a screen grabber! As you're probably noticed when looking through Amiga Format, we use them extensively ourselves. Memo is one of the best and will allow you to snap any standard intuition screen and save it as an ITF file that can be loaded into any of a number of guest packages.

UTIMASTER - UtiMaster is another of the 300 Workbench programs.

MORSE - Turn any text file into dots and dashes without ever having to learn the Morse code. This program will be of special interest to all radio hobbyists.

BLUE MOON - Blue Moon is an incredibly addictive 'Solitaire' game that will keep you going for hours on end. TR3 - Anyone remember QX7? This is an 'Amigaized' version of the classic Dragon 32 game (anyone remember those?), in which you must escape the screen by capturing

chunks while avoiding the various enemies that are after you.

WORD SEARCH - Anyone who enjoys word search puzzles will love this program, because it allows you to construct your own. WORDSEARCH 3000005 - SACC 23 also includes a directory filed to the team with fun demo programs such as: XPindows, HAMMamailinfo and Hong!

FISH 185

You don't need to be a registered software developer to get your hands on the official ITF documentation disk. Every so often, when an update is released, Commodore also put the disk into the public domain for general distribution to the likes of you and I.

Fish 185 is the latest release from Commodore and it includes full source code for loading, saving and saving data in several ITF 'forms', as well as source code demonstrating many other aspects of Amiga programming. The disk also includes several



■ Patching files across from the PC is made easy with PC Patch.



■ Tempering music made easier than ever before, courtesy of M.

very useful commands that deserve to be added to the G directory of any self-respecting programmer's work disk.

TBYB 12

Buying software can be a tricky business when you're forking out something like \$100 for a single program. The "Try Before You Buy" library is a collection of disks containing working demos of commercial programs. With TBYB, you can get a taste of what a program really offers (or perhaps completely skip it altogether) before handing over the necessary money.

TBYB No. 12 is a working demo of God Block's acclaimed animation program *MovieSifter*. The demo consists of a run-through, demonstrating the program in action, and a separate demo of a finished animation.

TBYB 2

Try Before You Buy No. 2 is a fully working demo of Intelligent Music's cooler music composition program *M*. So what's so special about *M*? Well, instead of forcing you to do all the hard work yourself (as is the case with other sequencers), *M* uses artificial intelligence algorithms to produce variations on your existing music.

TBYB 11

Doctor Iskender's keyboard-controlled sequencer is one of the most popular MIDI sequencers within the music industry. You'll find many top groups using Dr. P's ACS on machines such as the Mac, the PC, the ST and even the Amiga (heck, of *Del em*...). The TBYB demo is the complete, working program minus any form of save function. The ACS demo includes several sequences that can be played through either the Amiga sound hardware, or if you have them,

external MIDI devices. It allows you to save ACS for up to 16,000 channels before the program locks up.

FONT WORKSHOP

Just like magic and animation demos, Fonts are also regarded as highly collectable. *Font Workshop* is a disk filled with new, ready-to-use fonts which can be added to any disk, and various utilities to make maintaining your font collection as easy as possible.

BLITZ FONTS — Use your often-forgotten fonting tool to suit for your next processor to catch up with you? If so, then *Blitz* is the answer. *Blitz-Fonts* speeds up the Amiga text display speed by over six times.

SETFONT — *SetFont* allows you to change the standard Topic system font for any other of your choice. The *Font Workshop* includes both version 1.0 of *SetFont*, and the newer version 2.0. **FONT LIBRARY** — Keep that

FONTS directory firmly under control with this handy font library. **SEARCH FONT** — Which Font is a tiny index which displays all the fonts in the FONTS directory in all different type style combinations.

TOP 10 DEMOS

A list of top ten PD disks wouldn't be complete without including that special bonus of PD, the infamous Amiga Demo disk. With this in mind, we decided that demo disks deserve their own top ten.

Every month, as well as the more serious Top Ten PD list, Amiga Format in conjunction with Seventeen Bit Software will bring you a list of the month's top-selling demos.

Space, as always, was our final frontier, and so Demo Corner can't be illustrated in full this month. Look out for the next issue of Amiga Format for the full list of Amiga demo writers to be found on this side of the universe. Seventeen Bit Software can be contacted on 0924 366082.

TOP 10 DEMOS

17Bit Disk Nos throughout

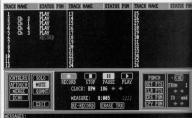
- | | |
|---|-------------------------------------|
| 1 210 <i>Roller Demo 2</i> (1 Mbit) | 6 271 <i>Session/Mega Demo</i> |
| 2 329 <i>Star Trek Dry Dock Aram</i> (1 Mbit) | 7 262 <i>Roller Demo 1</i> |
| 3 285/288 <i>KM Style Menopace Demo</i> (ask) | 7 404 <i>Supreme Sounds 1</i> |
| 4 353 <i>ShovWilder Demo-Creator</i> | 8 176 <i>Roll Copper</i> |
| | 9 240 <i>Lean Teenager</i> (1 Mbit) |
| | 10 346 <i>Flash Team Music Demo</i> |

SUPPLIERS

The following companies are responsible for the distribution of Amiga Public Domain software in this country. For their full addresses, check the advertisements in this issue of Amiga Format, or give them a ring.

George Thomson:
63 FORD ST
17 Rd Software
0924 366082
Salford PD
0706 366009

Amiga-PC Library
6748 588429
Purple PD:
376 757002
Ray Bart Pined
0703 705485



■ Just what the Doctor ordered! ACS, the keyboard-controlled sequencer, running on the Amiga.



Only from ASHCOM, 18 The Green, Asby-De-La-Zouch, Leicestershire, LE6 5JU
Telephone: (0530) 411485

55 Highland Avenue,
Bloomington, Illinois 61701

Please note: new products will be sent on the 15th of each month. Please contact your nearest distributor for details. Each 100g jar costs £1.00. Overseas add £1.00 per jar. For company and product literature, write to: Magnesium Dept 10, 440-1000 Lakeside Drive, Victoria, London SW17 7AD. Please specify 1000 when you request an Annual Mail 21 stamp.

What a deal! Where else can you get a magazine and a disk containing almost a megabyte of programs for under £3? JASON HOLBORN guides you through the first of our cover-mounted SuperDisks.

DISK EXTRA

Every month, we'll bring you a disk filled with the very best from the public domain libraries and from your very best typewriters. Whether it's games, graphics, music, various applications or programming, you're sure to find something on the Amiga Format disk that'll appeal to you.

This month's disk kicks off with a dose of Ocean's highly addictive and amusing arcade conversion, *New Zealand Story*. Fun and enjoyment is what Amiga Format is all about and, between the utilities for all you tech-heads out there, there's bound to be plenty of stuff to keep fun-loving types happy for hours on end.

THE NEW ZEALAND STORY

PROGRAMS BY OCEAN
SOFTWARE

FILES: NEW ZEALAND
STORY; NZ_LOADEN;
NZ_DINA; NZ_LOADEN.PC1

Life has always been an uphill struggle for the Kiwi. What with the Japanese enjoying a succulent Kiwi with their sole salad, and tourists running around trampling all over their precious eggs, it's a wonder there's a single Kiwi still hopping around at all.

In this game, you play the role of a little Kiwi whose fellow Kiwi

buddies have been kidnapped by the big, bad, old Sea Mafiosi Gang, head Mafiosi going to rescue them from their plight? What do you mean, 'Not me matey'? How could you let those cute little Kiwis suffer at the hands (fingers?) of such a horrible old Mafiosi?

You must journey through the Mafiosi's domain, searching for your imprisoned fellows. Once you've found them, just jump onto their cages and they disappear, leaving your Kiwi buddies free to escape. All is not in your favour, however, as the Mafiosi obviously isn't going to hand your buddies back on a plate (possibly the bones, though). Mr. Big Bad

DISK EXTRA

NEW ZEALAND STORY



The poor friend of Ocean's latest land adventure never stops complaining to the comfort of your own home with his exclusive stories. It's up to you to save your Kiwi friends from the evil Sea Mafiosi and his henchmen.

HOTEL

Does the Amiga's command line interface scare you? Don't panic, we'll show you 2000 without even needing to get your hands dirty with complicated things like keyboards.

WORKBENCH HACKS

If it's too painful, fast, or harder than the other two at your office, Workbench isn't for you. Some months we'll bring you the official how-to's to save you your Workbench system.

TRACKMON

Are you having problems tracking down that super disk that always seems to disappear from your time zone? Well, Trackmon, that disk search will have nowhere to hide.

PRIG DEMO



Take a look at what your Amiga is really capable of with this cute little animation. Every month, Amiga Format and Benchmark 86 Software will bring you the latest and greatest demos to really show off your Amiga.

VELDM

There's a great little utility to stick us all our best disks. It works with just a single command but has no means of displaying it, then also adds what is the most fun of just.

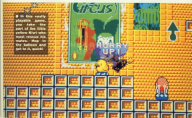
ART FILES

What do you mean, you can't program? Well you could start by creating something for the Amiga Format community? These are not just your usual and great, it's a chance to be heard, and we'll be putting the very best in PD art.

£800

UP FOR GRABS!

We want to know! But it's time to start to give you money! All you have to do is make a SuperDisk program for the Amiga and it will be the best of the Amiga Format community. We'll be putting it up in our SuperDisk page for you to see.



ART FILES

PROGRAM: PUBLIC DOMAIN
FILES: GIFFFIELD, CUBOLAN,
 AUDIOLANDSCAPE

This month, we bring you three of the very best examples of artwork in the public domain. However, in the near future we hope to be showing readers' art in the best possible form: on screen. So, if you have any pictures you're particularly proud of, send us a disk!

In this old time, we hope to show work by our new Graphics Editor, Brian Larkman. This will back up reviews of packages or products by illustrating them on your own computer screen. Watch out for it!



■ Familiar fowl flocks the fat rat and his much-abused pal.



■ This marvelous representation of a lone figure on a shipwrecked island is just one of the pictures on display in our Art Gallery. If you're an Amiga artist, send us a picture!



■ Beware! The cute yellow bird escapes one of his buddies, and the cage the friend was trapped in disappears in a puff of smoke.

Watus has employed the services of a military crew of technicians who are out for your blood. Even the teddy bears are out to get you!

You're not a Kew who's gonna let a load of weedy teddy bears walk all over you, 'cause you're well hard. To help you in your quest, you carry a bow and arrow, which is just the job to give those nasty teddy bears a taste of their own medicine. Once a teddy is shot, it'll magically turn into a piece of fruit that can be picked up and eaten. Extra weapons (such as bombs) can also be picked up; these'll really give the Watus something to chew on! See the full review on Pages 38-9.

GETTING GOING

You can test our exclusive New Zealand Story demo by inserting your coin disk at the front *AmigaSoft* prompt. The demo will then auto-load. To play the game, plug a joystick into control port two. Now stop reading and go into our *House*!

FROG DEMO

PROGRAM: PUBLIC DOMAIN
FILES: FROG.ANIM, SWOON.AM
 ENTERTAINMENT

Entertainment is what the coin disk is all about, and so, in conjunction with *Seven* and *Big Software*, *Amiga Journal* will be bringing you an exclusive *Amiga* demo every month.

What is a demo? Put simply, a demo is a program designed to show off the talents of both the *Amiga* and the demo's author. This month's demo is an animation of a rather cute frog. You frogs be cute! Enjoying himself in the summer sun. To load it, just double-click on the Frog Animation icon on the Workbench and the demo will load and run.

If you only have a single-drive *Amiga*, then you'll probably have to swap disks several times; just follow the onscreen reminders and you won't go far wrong.

Finally, if you only have *5.00A* of memory, it is best to unplug any external devices and close as many windows on the Workbench as possible.



TRACKMON

PROGRAM: BY MADHEAD
 GUST

FILES: TRACKMON,
 TRACKMON.DOC

How many times have you ever had that annoying "VOLUME 3 HAS A BAD/WRIT/ ERROR" message pop up into the screen? *Trackmon* will let you know if you could be told precisely where on the disk that error occurred, so that you could find it

16 BIT CENTRE

ALL PRICES INCLUDE VAT AND COURIER SERVICE

CALLERS AND MAIL ORDER WELCOME

Open 9.00am to 5pm
Monday to Friday

**PHILIPS 8833
STEREO MONITOR**
Including Lead
ONLY £219.00

**COMMODORE A501
RAM EXPANSION**
with clock
ONLY £115.00

**AMIGA A500
ROM + WORKBENCH 1.3**
Mouse, Modulator, Leads
ONLY £349.00

PRINTERS

Star LC 10 Colour	£239.00
Star LC 10 Mono	£179.00
Star LC 24-10	£239.00
Canon L200	£139.00
DEC P2300	£159.00
Epson LQ-550	£159.00

All printers supplied with 1.8M lead worth £7.99

HARDWARE

Amiga £2000, ROM 1.3	£595.00
Philips AD7300 TV Tuner	£39.00
Futuround 500	£79.00
Amidrive 50M Hard Disk	£445.00
Cumans 3.5 inch Disk Drive	£99.00
Mingon	£155.00

Please phone for other hardware prices

SOFTWARE

The Works	£89.00	Superbase Professional	£159.00
Lattice C VS	£595.00	Real Words V2	£39.00
Publishers Choice	£79.00	Workbench 1.3	£34.95
Dragons Lair	£25.00	Automaster 2	£95.00
Deluxe Paint III	£95.00	Agitation 1.3	£150.00
XCard Professional	£250.00	Professional Draw	£195.00

JOYSTICKS

Cheetah 125+	£9.95
Cheetah Starprobe	£14.95
Quackshot II Turbo	£9.95
Sonic Navigator	£12.99
PS Fantastick	£5.00
Krysal	£10.95

BLANK DISKS

3M DS/DD Box of 10	£12.95
Sony DS/DD Box of 10	£12.95
Kodak DS/DD Box of 10	£12.95
Unbranded DS/DD 10	£7.45
Unbranded DS/DD 50	£45.00
Unbranded DS/DD 100	£79.00

AMIGA PACKS

Amiga A500 + A501, DPaint III	£499.00
Amiga A500 + Philips 8833 Stereo Monitor (no modulator)	£549.00
Amiga A500 + The Works	£599.00
Amiga A500 + Tenetec Park, Sonic, Photon Paint	£599.00

All Amigas include Mouse, Power Supply, Manuals, Modulator, Workbench 1.3 and Kickstart 1.3.
Unless stated otherwise

16 BIT CENTRE

Unit 17, Lancashire Fittings Science Village
Claro Road, Harrogate HG1 4AF
Tel (0423) 531822/526322



draw with your trusty disk editor! TracMan is a handy little utility program that displays the current track, sector and side being accessed from any floppy drive connected to the system. Using the wonders of multi-tasking, TracMan can be run concurrently



■ TracMan in action. Here, we only have one drive connected (the internal one). When extra drives are added, the TracMan window is stretched to accommodate the extra information.

with any other packages already running (provided they don't turn off multi-tasking, that is).

GETTING GOING

You can load TracMan by double-clicking on the TracMan icon in the Workbench. Full instructions (do you really need instructions?) are available within the TracMan drawer.

VILBM

PROGRAM: PUBLIC DOMAIN
FILES: VILBM

Everyone knows that the Amiga is a wonderful machine for creating your masterpieces on. With loads of colours, loads of art packages and the kind of screen resolutions that artists demand, the Amiga is the number-one choice for all would-be artists. But once you've created a disk full of works of art, what do you do with them?

Vilbm is a slickshow tool that allows the display of just about any TIFF-format pictures one after

another. Even if your picture is in some strange resolution like overscan, Vilbm can handle it with no problems at all.

GETTING GOING

Vilbm can be run in two ways. The first, and probably the simplest, is to use the Amiga's extended selection technique from the Workbench. To display just one picture, click once on the picture file that you wish to view, then hold the [SHIFT] key down and double-click on the Vilbm icon. After a few seconds, the picture will be displayed.

If you want to view several pictures, use the same method as detailed above, but instead click on each picture icon in turn (don't forget to keep the [SHIFT] key depressed before finally double-clicking on the Vilbm icon).

The second method of running Vilbm is from the CLI. To view three pictures called Test1, Test2 and Test3, all you have to do is to enter 'VILBM (FROB) FROB FROB3' and then press [RETURN]. To advance through each picture, just slide the left mousebutton. Once all pictures have been displayed, Vilbm will return you to the CLI prompt (or the Workbench if you used the first method).

WORKBENCH HACKS

PROGRAM: PUBLIC DOMAIN
FILES: (SCSI), WACBENCH, HACKS.DOC

So you think we're going to explain what these customers do, don't you? Well think again! Workbench Hacks are fun little programs that are at their best when you haven't got a clue what they do. To run this month's Hacks, double-click on the associated icon, then sit back and play!



■ This icon is the one of the most useful little utilities around. All you have to do is select the picture files, and Vilbm will display them.

Workbench Hacks



■ The main screen of DoTIL displaying the source and destination windows in which all the copied operations are usually carried out.

DOTIL

PROGRAM: PUBLIC DOMAIN
FILES: DOTIL, DOTIL.DOC

OK, confessions time. How many of you have tried to learn the Amiga's Command Line Interface, only to find it almost totally incomprehensible? Sounds familiar, doesn't it? If you are struggling to get to grips with the inner workings of AmigaDOS, why bother? You can use DoTIL instead.

DoTIL is a very useful utility that performs a place or any self-respecting Workbench disk. DoTIL allows you to carry out practically any task that you could previously only achieve through CLI from the Workbench environment. Instead of having to type in all those complicated (and almost to remember) DOS commands, all you have to do is to point and click. It really is as simple as that. With DoTIL, you can:

NEW DIRECTIONS - Even if a disk contains practically no icons at all, with DoTIL you can travel the directories, viewing those hidden files with ease. No more will you be hurtling through a disk for that mysterious file, only to find that it can't be found because someone forgot to give it an associated icon file.

FILE MANAGEMENT - Even if a file doesn't have an icon, there's no hiding from DoTIL's extensive array of file management tools. Using multiple selection, you can move, delete, rename or view any file on any disk. AmigaDOS has never been so simple.



■ What do you do if you want to copy all files, including all those without icons, to the RAM disk? Use DoTIL of course! Here we've selected on the files that we are planning to copy across.



■ Next, just bring up the pull-down menu containing the COPY option, select it and you're away.

GETTING GOING

You can load DoTIL from the CLI... or, by double-clicking on the DoTIL icon in the Workbench. Full instructions on getting the most from DoTIL are available within the DoTIL drawer.



■ Et voilà, our files have been successfully copied. Now you've got an extra file for all being able to look up the description!

1. **Introduction**

SOFTSELLERS

WILL-
CHIEF

100

8 BOND STREET, IPSWICH, SUFFOLK IP4 1JB

STAMP NAME: ONLINE BUSINESS LIFE (0673) START DATE: (0673) 310000

10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	1
-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	---

DATE	DEBIT	CREDIT
TOTAL DEBIT		

100

Table 1

1000

Journal of Management Education

TABLE 1

[illegible]

(Compare & Postal Orders payable to SCOTTLELLIPS, Post & Packing Free in U.S.)

Remember: Do not use your hands to pull the animal out. Use your legs and arms to support the animal. And all wires removed at time of getting to ground.

1000

11-11-11
 11-11-11
 11-11-11

100

Abstract

[illegible]

Now called the **Windows File** icon is a file manager already built to display and applications for use with Windows' main menu structure. **Windows** gives all the features of File but adds navigation and search.

1991-1992	1992-1993
1993-1994	1994-1995

Organisms	100%
10 - Invertebrates	100%
10 - Vertebrates	100%
Plants	100%
Animals	100%
Microorganisms	100%

Alpha Base	15	90
Omega Plus	18	90
W-Cells	20	90

All printers must have a minimum 24-hour turn-around, and E-books must be submitted and accepted not ahead of continuous pages. The minimum printer must be also accepted not ahead of 24-hour turn-around. Delivery is 7-10 days from date of copyright and clearance. For next day (after 10:00am) delivery, call 800-828-8282.

Strongly agree
Disagree
Strongly disagree

lowest price and build quality ever
 released. Offers all the great music you
 get with the FZ-50, complete
 in the 12.99. Best value.
 (735544)

the well-known and religious in the
 (Mormons). Four different languages are
 available in the 40 years of school and
 others. (The world's first school)

All the features of the 11-11 line with the addition of 1-point in several shades. Also, the Super 11-11 printer uses more than 1000 colors in your digital project.

All pine varieties at the 100- to 125-year life span, all wood uses and effects, sap, bark, insects, diseases and diseases and excellent pine quality.

Early Post School Year 7 Educators		
Parents per class		
High School 7 (7-8 years)	100%	100%
High School 7 (8-9 years)	100%	100%
High School 7 (9-10 years)	100%	100%

Add of our dogs has made their company quite enjoyable to prove.	
Charmington	100.00
Belgian in France 1980	1.00
Continental Express II	100.00
Continental Express	100.00

Page	Page	Page
1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27
28	29	30
31	32	33
34	35	36
37	38	39
40	41	42
43	44	45
46	47	48
49	50	51
52	53	54
55	56	57
58	59	60
61	62	63
64	65	66
67	68	69
70	71	72
73	74	75
76	77	78
79	80	81
82	83	84
85	86	87
88	89	90
91	92	93
94	95	96
97	98	99
100	101	102
103	104	105
106	107	108
109	110	111
112	113	114
115	116	117
118	119	120
121	122	123
124	125	126
127	128	129
130	131	132
133	134	135
136	137	138
139	140	141
142	143	144
145	146	147
148	149	150
151	152	153
154	155	156
157	158	159
160	161	162
163	164	165
166	167	168
169	170	171
172	173	174
175	176	177
178	179	180
181	182	183
184	185	186
187	188	189
190	191	192
193	194	195
196	197	198
199	200	201
202	203	204
205	206	207
208	209	210
211	212	213
214	215	216
217	218	219
220	221	222
223	224	225
226	227	228
229	230	231
232	233	234
235	236	237
238	239	240
241	242	243
244	245	246
247	248	249
250	251	252
253	254	255
256	257	258
259	260	261
262	263	264
265	266	267
268	269	270
271	272	273
274	275	276
277	278	279
280	281	282
283	284	285
286	287	288
289	290	291
292	293	294
295	296	297
298	299	300
301	302	303
304	305	306
307	308	309
310	311	312
313	314	315
316	317	318
319	320	321
322	323	324
325	326	327
328	329	330
331	332	333
334	335	336
337	338	339
340	341	342
343	344	345
346	347	348
349	350	351
352	353	354
355	356	357
358	359	360
361	362	363
364	365	366
367		

TABLE 10.10 (continued)	
Adjusted, R-squared (R ²)	0.83
Adjusted, R-squared (R ²)	0.83
Adjusted, R-squared (R ²)	0.83

Keywords: child sexual abuse; disclosure; social support; self-esteem

This procedure includes delivery and setup of all of your equipment to your new program. Plus, we'll send you all the help you need to get your program running smoothly.

[illegible]

1. (any) (anytime)	50.00
2. (any) (anytime)	50.00
3. (any) (anytime)	50.00
4. (any) (anytime)	50.00
5. (any) (anytime)	50.00
6. (any) (anytime)	50.00
7. (any) (anytime)	50.00
8. (any) (anytime)	50.00
9. (any) (anytime)	50.00
10. (any) (anytime)	50.00
11. (any) (anytime)	50.00
12. (any) (anytime)	50.00
13. (any) (anytime)	50.00
14. (any) (anytime)	50.00
15. (any) (anytime)	50.00
16. (any) (anytime)	50.00
17. (any) (anytime)	50.00
18. (any) (anytime)	50.00
19. (any) (anytime)	50.00
20. (any) (anytime)	50.00
21. (any) (anytime)	50.00
22. (any) (anytime)	50.00
23. (any) (anytime)	50.00
24. (any) (anytime)	50.00
25. (any) (anytime)	50.00
26. (any) (anytime)	50.00
27. (any) (anytime)	50.00
28. (any) (anytime)	50.00
29. (any) (anytime)	50.00
30. (any) (anytime)	50.00
31. (any) (anytime)	50.00
32. (any) (anytime)	50.00
33. (any) (anytime)	50.00
34. (any) (anytime)	50.00
35. (any) (anytime)	50.00
36. (any) (anytime)	50.00
37. (any) (anytime)	50.00
38. (any) (anytime)	50.00
39. (any) (anytime)	50.00
40. (any) (anytime)	50.00
41. (any) (anytime)	50.00
42. (any) (anytime)	50.00
43. (any) (anytime)	50.00
44. (any) (anytime)	50.00
45. (any) (anytime)	50.00
46. (any) (anytime)	50.00
47. (any) (anytime)	50.00
48. (any) (anytime)	50.00
49. (any) (anytime)	50.00
50. (any) (anytime)	50.00

Amiga Fan Magazine	\$5.95
AmigaWorld Guide	\$2.95
AmigaWorld Fan Guide	\$4.95
Amiga Tricks & Tips	\$2.95
Amiga Master Tricks & Cuts	\$9.95
Unofficial Amiga Book	\$12.95
Advanced Amiga Book	\$19.95
The C Language for Amiga	\$19.95
Amiga World Special	\$4.95

[illegible]

M.J.C. SUPPLIES (AF), 40A Queen Street, Hitchin, Herts SG4 8TS
Tel: (0462) 420647, 421415 or 32897 for enquiries Credit Card Orders

Are you new to the Amiga, finding it difficult to harness the power of this amazing computer? Then what you need is help from the largest group of Amiga enthusiasts in the world.

10/10/2017 10:00:00 AM

- ★ Excellent discounts on software
- ★ Technical support and on line help
- ★ Superb hardware reductions
- ★ A bi-monthly newsletter of over 60 pages!
- ★ Access to a PC library of over 300 disks
- ★ Use of the groups Arrage only bulletin board
- ★ Discounts on books



DON'T HESITATE - JOIN NOW and start to appreciate what America computing is all about.

For further details write, enclosing a stamped
addressed envelope for:

The U.K. Amiga User Group,
66, London Road,
Leicester, LE2 0QD

Or Telephone :
London 01538 540000



Received 10 June 2004; accepted 10 June 2004; first published online 10 June 2004

- [illegible]

For the U.S. Department of Energy, please contact the following: Mr. Robert L. Smith, Director, Office of Energy Conservation, Room 3000, 400 Capitol Mall, Sacramento, CA 95833. Tel: (916) 227-3000. Fax: (916) 227-3001.

Abstract 21.21 *Cardiovascular Health Status: A National Study*. [Chen, J. 1998] *Annals of the New York Academy of Sciences* 840:1-10.

1000



Castle Software

PARTNERS: S A BEECH & R A BEECH

AMIGA REDUCTIONS

	RRP	
Manhunter in New York	29.95	14.95
King of Chicago	29.95	8.95
Hardcore	29.95	14.95
Police Quest	24.95	14.95
Real Ghostbusters	24.95	11.95
Adventure	24.95	11.95
Space Quest II	24.95	13.95
Elgin Quest III Part	24.95	19.95
Football Manager II	19.95	8.95
Crystal	29.95	14.95
Silk Worm	24.95	14.95
Portal	24.95	7.95
Robbery	24.95	5.95
Theater	24.95	4.99
Action Service	19.95	4.95
Pioneer Plague	24.95	5.95
Keeper Rabbit (1 meg)	29.95	5.95
Soccer Supreme	19.95	6.95
Marie Christmas Box	24.95	5.95
Summer Olympics	19.95	5.95
Water Olympics	19.95	5.95
Vindicators	24.95	8.95
Indoor Sports	24.95	5.95
Inevitable Striking Sphere	24.95	9.95
Fire Power	24.95	6.95
Leaderboard	24.95	7.50
Out Run	19.95	7.50
Academy	24.95	6.95
Armageddon Man	24.95	3.95
Hamsters	19.95	13.95
Vigilante	24.95	19.95
Speed Rail	24.95	14.95
Fun School under 6	24.95	14.95
Fun School 6 to 8	24.95	14.95
Fun School 8 to 12	24.95	14.95
Lead Fishing Sun	29.95	21.95
Hollywood Poker Pro	29.95	19.95
Batman	24.95	17.95

AMIGA SPECIAL OFFERS

	RRP	
Wipey Mania (3P)	24.95	5.95
Rockin' Ranger	29.95	18.95
Sword of Sodas	29.95	15.95
Populus	24.95	19.95
De Ja Vu	24.95	9.95
GFL Football	29.95	4.95
Star Goose	24.95	5.95
Backlash	19.95	5.95
GFL Golf	24.95	6.95
Strike Force Hammer	24.95	5.95
Foundations Waste	29.95	5.95
Romantic Encounter	24.95	5.95
Rickrack Academy	24.95	5.95
Bohème Royal	29.95	6.95
Quadrados	24.95	4.95
Slayage	24.95	4.95
SDI (Clockwork)	29.95	8.95
GFL Baseball	24.95	6.95
GFL Baseball	24.95	6.95
Teenage Queens	24.95	15.95
R-Type	24.95	15.95
Parmans	19.95	13.95
Pastard	19.95	13.95
Prison	19.95	11.95
Super Hang on	24.95	14.95
Dungeons Master	24.95	15.95
TV Sports F Ball	29.95	21.95
Demons	24.95	56.95
Falco	29.95	19.95
Test Drive II	29.95	22.95
IK+	24.95	16.95
Salaries	19.95	13.95
Elite	24.95	15.95
Blood Money	24.95	15.95
Ultima 4	24.95	15.95
Millennium 2.2	24.95	15.95
Gunship	24.95	15.95
Microprose Soccer	24.95	15.95
Kick Off	19.95	12.95
Curriculum	19.95	14.95
Deluxe Paint III (1 meg)	29.95	54.95

AMIGA SPECIAL OFFERS

	RRP	
Personal Nightmare	29.95	18.95
Archipelago	24.95	15.95
Space Hammer	24.95	11.95
Journey to the Center of the Earth	19.95	13.95
L.E.D Storm	19.95	13.95
Bio challenge	24.95	14.95
Quarant II	24.95	56.95
Super Scramble	19.95	14.95
Scorpion	24.95	15.95
Lombard RAC Rally	24.95	14.95
Hard Tale	24.95	7.50
Marble Madness	24.95	7.50
Vision	24.95	4.95
Nominal	24.95	5.95
Fernandez Hunt Die	24.95	6.95
Fairy Tale Adventure	24.95	6.95
Traces	24.95	5.95
Elton Star	24.95	5.95
Hellfire Attack	24.95	5.95
Galactic Invasion	24.95	5.95
Leather Goddess	29.95	5.95
Word & Best	29.95	5.95
Shedlock	24.95	6.95
Bureaucracy	24.95	6.95
Better Dead Than Alien	24.95	1.95
Snip Poker 3+	19.95	1.95
Sprinting Image	24.95	1.95
Shanghai	24.95	4.95
Mania	24.95	4.95
Garfield II (Western Tale)	24.95	25.95
Exc Macracken	24.95	17.95
War in Middle Earth	24.95	15.95
Road Blasters	19.95	13.95
Lancelot	24.95	15.95
Three Scoops	29.95	9.95
Division I	19.95	5.95
Richard Sim	24.95	7.95
Warped	24.95	6.95
Fluxion Paint (no box! just disc manuals)	29.95	19.95



NOW
TAKEN

CASTLE SOFTWARE
2 WILLIAM CLOWES STREET
BURSLUM, STOKE-ON-TRENT
TELEPHONE: 0782 575043



NOW
TAKEN

GAME BUSTERS

These computer games can be pretty tough to beat sometimes, so often there's only one thing left to do: cheat! That's where Gamebusters comes in. Here you'll find cheats, hints and tips for all the latest games that you may have problems with.

THE REAL GHOSTBUSTERS

Can infinite lives simply by typing this listing into Amiga files, saving it for future use, and then inserting the game disk before running it.
00 00M CODEC025A



28 FOR H-3 TO 50
30 READ K5-A-VRLMT+AS
40 CODE0088-A
50 NEXT H
60 CREAT-VMTREC0088
70 CALL C088T
80 REM TIME IN THIS LISTING AND SAVE FOR FUTURE USE
90 REM REMOTE (240) REQUESTS DISK AND RUN H-30 PROGRAM
100 REM GAME SHOULD LOAD AS NORMAL BUT WITH BATTLE LIVES
110 DATA 7095,2578,0094,4044,1086,2000,6780,6770
120 DATA 4894,8082,587C,2408,4780,7ACT,8100,4844
130 DATA F0D4,2403,2480,2940,8008,8890,4294,8894
140 DATA 8090,148C,0005,387C,8098,0094,411D,8008
150 DATA 2048,8008,4174,0080,7080,7200,498,0084
160 DATA 4044,7E44,4480,6580,8024,708C,990C,8180
170 DATA 8004,7802,4978,0807,8080,8708,0008,297C
180 DATA 317C,4874,804C,287C,5700,8004,0882,400C
190 DATA 800C,8174,4074,0007,3348,081C,224C,0008
200 DATA 4284,0807,217C,0080,848C,0084,137C,8008
210 DATA 8007,288C,7E38,7E72,614C,4844,0073,800C
220 DATA 8484,7844,6584,800C,0800,0080,8008,0800

Matthew and Peter Warner, Brighton.



FORGOTTEN WORLDS

Don't bother fighting your way through all those mazes, simply type AWC and hit the HELP key on the title screen, then press 5 to go straight to the shop and 8 to skip to the next level. Simple when you know how!

J Garrett, Worcester.

THUNDERBLADE

Type in CODE4 on the high score table and you'll find you're able to skip levels simply by pressing the HELP key.

Alan James, Denmark.

LOORDS OF THE RISING SUN

By using these handy hints to get more from the game.

YOSHITSUNE

Yoshitsune is more skilled at fighting than Yoritomo, so at the start of the game make sure you have almost full strength and men before you try attacking anything. Your main objective now, because you are near maximum status, is to deal with your brother and to capture enemy castles. If you take over enemy castles, the enemy troops will have nowhere to recruit more men and all your brother's men and land is yours if he dies.





Your next job is to try and secure the eastern half of the island. To do this, take over all the castles and destroy or capture all the armies on that side of the island. Now concentrate on the rest of the island. In Edo try to leave a General with the least siege abilities as he probably won't intend to siege castles anyway. Remember, one General will die and if the General is at Edo, Nagoya will be easier to storm by land. If you can send a General from Bida to Matsue via Akawa you will have a good base from which you can attack the Western castles. Once you have complete control over the main island then you should be able to wipe out the remaining four castles on the two smaller islands. Don't go for these unless you have a very firm base otherwise you will have to risk all the way back should a range trooper take over a castle.

YOSHINOBU

A great politician and strategist but try to take Edo first because it's the only castle you won't have to try siege to take. If you're lucky though, you may reach Ryoma or Nagata before anyone else. The same rules now apply to Ryoma as with Yoshinobu: wait until you truly have a full army before attacking. Be careful if you get into any fights, because you have a low battle skill and a smaller army with higher skill can easily wipe you out. At the beginning of the game try to avoid taking risks and instead concentrate on improving your skills. If you over fight your brother and survive long enough, chase him on his back, because if you stay too long, he can change dramatically.

IN GENERAL

Participate in battles as you tend to lose more time if you don't. Chasing the General on his back often leads to early victory as you can wipe out armies in one battle instead of at the end of the game, and since you're confident it's possible to do a every tactic but do not engage in the siege sequence, because being on the coast. The most important factor in battle is strength and long gunnery can weary your troops, so ensure they have plenty of rest before a battle. An army coming by sea will be tired but faster and more flexible, so meet them on the shore and the advantage will be with your men.

Whatever character you've chosen, try to isolate the rest of the island so you're more able to concentrate on attacking the enemy and won't have to worry about defenses and precautions, but watch out for the enemy trying to outflank you. The islands will all be bitterly fought over, so ensure that your troops have confident strength before attacking. The islands are well worth going for though, because they are ideal resting places for a good force and good Generals can interchange their armies from island to island without meeting too many problems.

men going on, you can't install the British version of the game on your hard drive, unless you follow these simple steps.

1. Copy all files on both disks to your chosen directory (e.g. copy disk1 disk1 onto all)
2. Edit the startup sequence file to read:
"averageHongSun1: disk1\user"
"averageHongSun2: disk1\user"
"run main"
3. Execute the above file, making sure that your ORIGINAL disk 1 is in EDD, as the program is protected and checks for the original before loading.

Thanks go to John Mackenzie for that tip.

RUNNING MAN

The first three levels asked for you - next month we'll give you the solutions to the last two - so watch this space!

LEVEL ONE

A simple run and jump will get you onto the platform. If you have any problems with dogs lock or punch them the best way to do this is to stand still with the fire button pressed, and move the joystick left/right depending on where the dog is coming from. Each kick of the dog rewards you with a small amount of extra energy. To jump the character, you'll have to have a running start so run towards the stone, jump up and run backwards and forwards until you're confident and jump between the first two black slants indicated by the red arrows. Keep pushing the joystick up diagonally even when slipping to the first circle as you

The key to early victory is to recruit many more armies than your enemy. Then trapping him is a spider's web and gradually wearing him down (of course he can always try the same tactic as you, so beware). It's important to have a strong hold on North and South Japan, as a figure force can sweep across and open up tanks, causing all sorts of problems. If you're unsure of your force, avoid battles because he who fights and runs away really does live to fight another day. Ninja assassins may sound appealing, but only resort to them as a last resort and don't send them on too hard a mission because they might turn back and recognize you as the enemy!

Simon Liu, Morden

And taking of Lords of the Rising Sun, a small typographical error in the manual may have left a few hard drive owners wondering what



THE WINNERS GUIDE TO KICK OFF

will immediately do a second jump to land on the other side.

Once across, keep running and jump the dogs, because keeping going to kick them could see you getting hit by an exploding ball at Subzero. Try to avoid Subzero and any more dogs until you get to the camera at the end of the level. Make a little away from the camera (as indicated by the green arrow) and wait for Subzero to appear. When he does, he'll fire a pack straight at you to prompt you to jump into the air. Subzero will then run behind you and before he has time to fire another, kick or punch him as he comes towards you—keep him up and you'll beat him, then you can exit as quickly as possible because hanging around in the cold is not a good idea.

LEVEL TWO

Run along and jump into the boxes avoiding any dogs. The dogs can't climb onto the boxes so you're safe there. The trick is to cut, so don't bother picking it up. Jump over the falling lightning and onto the boxes, as the other side is the real jump, where you should pick up. Keep running until you reach the medical aid, which will replenish at your first jump. Crawl through the rusty pipe and over the boxes and run along until you meet Buzzsaw. Be careful to avoid the many dogs that are here. You cannot jump over Buzzsaw when he's pointing the saw at you, but you can at any other time.

Use your head piling on forward diagonals (good for punching) and it will slash out. Once you're lugged at Buzzsaw immediately get into the crawling position—his can't get you when you're crawling—and crawl past him. However, though, because the dogs can still get you. When he's standing over you, he'll start to move in the opposite direction to you quickly stand up and when he backs towards you hit him and get back into the crawl position. Do this until you've killed him and then run off the screen.

LEVEL THREE

You'll realize now that you haven't got your weapons, but the club on the first screen and use this to dispose of Dynamite, who is the toughest opponent in the game. Run in the blocks there will be a dog either following you or coming at you, so head to it and jump

it's fast and heavy, it's the best frontal game there is, and despite what the Olympic movement would have us believe it's not taking part that matters, it's winning. In the elements of what's going on in this screen, here are the Armed Forces' defense has to winning at kick off.

THE KICK OFF

To receive the chance to score with in the first few seconds of a restart. Trap the ball, charge straight up the pitch and shoot as you approach the penalty spot; there is a good chance it will go in. The computer teams are used to this tactic, but they will frequently fail you as the way to the net can still be confirmed and a penalty may even result. If you use some time to look at the first thing to do is to attempt the attacker don't just chase him, wait for control to switch to a defender in his path and then move up the pitch towards him to tackle. However, because everything happens so fast it is, frequently a matter of waiting to tackle the attacker immediately to the ground, thereby affecting.

CORNERS

Another good scoring chance. There are two main methods for putting the ball in the net. Either use the ball kick into the middle of the penalty area where a waiting player can blast it home, or that it across the goalmouth for an incoming forward to judge as you can even score directly this way. Head off the ball line to the rear post because the keeper will always collect it. Also because of being the ball deep into the area because in this position it is much harder to control.

Defending against corners is difficult. The best to spot quickly what sort of kick is being taken and then get someone to the ball to clear it. The most dangerous kick is the wingman across the goal which you are likely to put in your net. Just hope everyone means and it goes past.

PENALTIES

A 90% success rate can be achieved by following the following instructions. Run until the arrow is approaching the middle point and then give a sharp tap on the toe button. Anything more than the phorot of legs will put the ball over the bar. If you have

floating until the arrow ball reached the middle or is going away the ball will almost certainly go wide.

THROWING

Don't kick the ball straight upfield from these because it very often goes straight out again. Angle the ball instead before kicking it. Alternatively, dribble the ball, although this is more hazardous because there are always opposition players in close attendance at throw-ins.

PASSING AND SHOOTING

There are two main methods for taking the ball into the center-circle and the top half of the pitch. The RCTB is quicker and gets further, but it is very hard to get it to go anywhere but in the direction you've been running, although 45, 90 and even 180 degree changes of direction are possible with a quick change of pitch angle just as the ball is kicked. This is also the method for changing direction while dribbling.

By 180 the toe button has to be pressed down just before the player runs into the ball and held. He can then send round balls and kick the ball in any direction by releasing the button immediately it will be passed to another player. This is particularly handy if you are running in the wrong direction, and when used well can result in very accurate and satisfying safe passing manoeuvres.

DIBBLING

Because the ball is not 'stuck' in the end of your foot, dribbling is an art that has to be learnt. Putting in a straight line is easy, but changing direction isn't. 45 degree changes are possible by hitting the diagonal at the right moment. Anything else requires a quick side-step or dabber around the ball so that it can be approached from another angle. It sounds difficult but with practice you get used to the timing of the actual contact with the ball while dribbling, so that changes of direction can be made extremely quickly and easily.

TACKLING

The safest method of disposing of an opponent on the ball is just to run into them. However, if you're approaching from behind and they are getting away, use the goal, head on bustions or kicking them down as long as it

is outside the penalty area. Professional teams are best told when the ball is going to go, or better still lost.

REPERE

Pay attention early on to how the ball reacts to goals. If it is a white, happy then try to dribble with the ball a bit. Hopefully several of the opposition will get sent off or give away penalties. If he does and give yellow cards straight away, then feel free to kick the opposition like dogs whenever necessary.



GOAL KICKS

It's crucial to learn how to run the ball from goal kicks and quite there are two main methods. Either take the run to circle with the ball just at 45 degrees, allowing you to dribble away immediately, or hit the toe button with the player instead to keep into the net and head the ball on. The second tactic can give valuable ground quickly. If three points too difficult then try to trap the ball when it comes down by heading down the two buttons.

HUMAN OPPONENTS

They are very susceptible to the charge straight at the pitch, always go for it. By it's true the ball in the penalty area and wait for your punting opponent to kick you down, giving a penalty. It's a bit of a trick, and will really annoy them too.

COMPUTER OPPONENTS

Possession is the key; give them too many chances and they will always score. Go for 4-4-2 or 5-3-2 formations so that you have plenty of defences and midfield control. 4-3-3 is pretty useless, and 4-2-4 is only for the brave who reckon they can outplay the computer a full side. The ultimate challenge is the 4-2-2 team because they are so fast. The best to remember with them is not to let them pass the ball over or with your (generally) decent players, but to wait for control to switch to the player in his path, then clear from the back.

up and see. Here you'll find a medbook to restore lost energy. Run past the first light bulb and then start walking. Chances are you'll meet a dog either between the lightbulbs or just as Dynamos appears on the screen.

Dynamos appears when the red X is next to the second light bulb. As soon as he appears, hold fire at you; you can click to avoid the blasts, but he can fire at duck and crawl height too. The only way to dispose of Dynamos is get to the club. Unfortunately, every time Dynamos sees you he fires at you. When he first appears walk about 4-5 paces, away from him then turn round and run toward him (he should now be in his car, which you can jump over).

Once you've made it to the club, pick it up and now whenever Dynamos fires at you duck until the ball is over your head, then stand up and walk one step towards him. Keep this up until you're in hitting distance, and if your timing's right you should be able to cock him off after a few blows. This is a lot easier said than done, especially as dogs tend to come after you just when you're about to stop Dynamos. Keep at it and get the timing right, and you'll manage to then just walk off the screen and into the next level...

Mark Manning, Brighton.

MILLENNIUM 2.2

How to colonise the solar system and still return to Earth safe as all that...

Electric Dynamos' smart strategy game Millennium 2.2 might have one or two of you somewhat perplexed, if not completely stuck. If so, read on...

The first thing to do is activate the Mk I Solagons which is already in stock in the Energy module. Once this is up and running, it's simply a question of utilising the Resource complex to get enough material to build a Mk II. Once the Mk II has been researched, you'll find that there isn't enough energy to build the thing. Turn off the Resource complex, build the Mk II and then turn it back on again. After that, it's simply a matter of researching and building increasingly powerful Solagons up to the Mk X. Don't worry about the failed Mk II. Simply use the Mk II which should be in store and repeat the process.

Once the base is operating properly, you have a number of

options. But before many of the items can be built, extra minerals are needed. To get these quickly and simply, research and build a small fleet of Cassers. These can continually ferry small amounts of much-needed ores from the asteroid field.

The central part of the game focuses on the growth and major

factor on in the game you'll need a full complement of bases on the moon, to keep buildings.

To find more information about the Solar System, continually build and launch probes. However, don't bother sending them to the inner planets, Mars and its moons, Jupiter and its moons, or the asteroid belt, since

Planet Cancer, and the debris scattered back to the Moonbase. Research this immediately; it's important that one be built. However, you'll find it takes rather a lot of materials!

Once the Fleet Carrier is built, fill it full of fighters and head for Mars. While in orbit the Carrier is attacked by a fleet of Martians, at which point all the fighters should be launched (lower right icon on the left hand side). A ferocious, if slightly tedious, battle ensues but the Martians should eventually surrender.

After this, Mars can be colonised in the usual way. The colonists then test plans of a Martian terraforming machine capable of making the Earth's atmosphere. Again, this should be researched and built ASAP. However, you'll find that the stock of chemicals is pretty much in. This is where Titan comes in; you should, by now, have enough chemicals collected for shutting back to the moon.

Once the Terraformer is built, you'll find that even the Fleet Carrier isn't large enough to carry it to Earth. Don't despair; the researchers redesign the ship so that the terraformer just fits in. The newly customised juggernaut can now take the Terraformer to Earth, although it cannot take off again.

While the Earth is being terraformed, previous reports of a huge Martian fleet prove to be true, when the Moonbase is attacked by over 200 fighters! It's just the prelude of Orbital Launchers - up to 15 - should be used up, prior to launching your fighters. Even after all this, it stands a very good chance that the attack cannot be repelled completely, and the Moonbase still gets cluffed up a treat. In this case, you'll find that the moonbase's population has been

reduced to zero. Don't panic; send a couple of Cassers to the moon and dismantle them. The population increases by 80 for every Casser destroyed.

Having survived the Martians' final assault, it should now be just a question of time before good old Terra is colonisable. In the mean time all your colonies start declaring independence. As long as you have a good stock of materials, don't worry about it. When a report comes in stating that Earth is once more in a habitable state, build the necessary SSS, send it to Earth and then grow heads at the soft rivet sequence ■

WIN! WIN! WIN!

OK hands up who would like \$50 worth of software? For free! Of course you would, and you can have it too. All you have to do is spend some time playing your favourite game and then send your maps, tips and jokes to Amiga Format Gamesbusters, 4 Queen St, Bath BA1 1LJ. If we print your tip to the reader this game, the more likely you are to get into print than you stand a good chance of scooping one of **THREE £50 prizes** to get playing and get those tips in. This month, Matthew and Peter Warner, Simon (u) and Mark Stening, pick up the prizes and will soon be playing away on all that juicy **FREE** software. Jealous? Well, you know what to do about it!

size of the moon and its colonies. This is a matter of finding which moons or planets provide the best sources of raw materials, setting up colonies and shuttling in and from these. The colonies provide minerals and ores, while the Moonbase sends replacement Solagons, fighters and Orbital Launchers.

The later equipment - as if you hadn't already discovered - is employed in the continual landing of Mk I Martians. Orbital Launchers are very effective, but can only be used once; obviously it's best to keep a reasonable stock in each colony and the Moonbase

they either get destroyed or yield no useful information.

The key to completing the game is better probes, research and colonies as soon as possible, for reasons which will become clear later on.

After reports of Martians to come in, research and produce the required vaccine. Don't just ferry it to the infected base, though, but produce enough by at colonies and the moon base since the virus is violent and soon spreads throughout the infected worlds.

At some point you will be informed of the crashed Martian



ATARI ST and AMIGA

Sixteen Bit Superdeals from the Sixteen Bit Specialists!

CUSTOMERS PLEASE NOTE! When comparing prices remember ours include fast delivery by courier.



520 STFM Power Pack **£359.00**

inc. VAT and Next Day Delivery

Power Pack includes:

- 520 STFM 1025 Keyboard with Built-in 1 Megabyte disk drive and TV Modulator
- Over 250 worth of games software, including OutRun, Gauntlet 2, H-Type, Space Harrier, Super HangOn and 15 more Top Games
- Onscreen Business Software including INVOICEPROCESSOR, SPREADSHEET and DREAMBASE
- First BASIC and First Music Utility Software
- FREE JOYSTICK
- All leads, manuals PLUS MOUSE and free mains plug!

REMARKS: Many STs do not come with BASIC - Yours comes with ST BASIC ROM by Microsoft.

520 STFM SUPER PACK **£239.00**

Includes everything in the 520STFM Power Pack, but with £400 worth of Games and includes Microsoft Basic

1040STFM Super Pack **£439.00**

Includes everything in the Atari 520-STFM Super Pack but with the 1 megabyte memory 1040 STFM Keyboard

1040STFM Business Pack **£439.00**

Business Pack includes:

- Atari 1040STFM Keyboard with 1 meg memory and 1 meg built in disk drive plus TV modulator
- Lots of on-screen Business Software including INVOICE/SPREADSHEET word processor, SPREADSHEET, PERSONAL, Database (DB) and PDF-PROCESSOR, Lotus 1-2-3 spreadsheet (1000), Microsoft Basic (200.00)
- All leads, manuals and mouse

MEGA 1 BUSINESS PACK **£329.00**

Features:

- 1 Megabyte Keyboard and System Unit
- 512Kb Software included with MEGA STFM Business Pack
- Mouse and modulator for games software

inc. VAT and Next Day Delivery

ACCESSORIES

Clickwheel 3 Turbo Joystick	£9.95	Standard Memory 2.5 MB 60 Days	
Competition Pro 2000 Joystick	£12.95	Box of 10	£12.95
Competition Pro with Audio	£14.95	Memory Disk Box	
Fast Speeding Joystick	£11.95	For 5.25" Disks	£3.95
Fast Mouse Mat with Amiga logo	£5.95	Amiga 500 1 Meg Expansion	£199.00
Fast Blue Mouse Mat	£5.45	Amiga 500 1 Dragon's Lair	£189.00

PRINTERS

Epson LQ24-90 24 pin led, fast ST Amiga	£209.00
Epson LQ10 including interface lead for ST Amiga	£159.00
Epson LQ11 colour including interface lead for ST Amiga	£299.00
Citizen 1000 including interface lead for ST Amiga	£159.00
SHERMAN 80 COLOUR PRINTERS - AMAZING PRICES	
Jetcolour 8 pin PLU2 including interface lead for ST Amiga	£159.00
Jetcolour 24 pin LC including interface lead for ST Amiga	£279.00

Amiga A500 System 1 **£365.00**

inc. VAT and Next Day Delivery



System 1 includes:

- Amiga A500 512K Keyboard with Built-in 1 Megabyte disk drive
- Free TV modulator worth £24.99 allowing you to use the Amiga with a normal TV
- Amiga BASIC, Amiga EXTRAS 1.3, Workbench 1.3 PLUS the Amiga Shop by Shop Tutorial
- All leads, manuals PLUS MOUSE and mains plug!

Amiga A500 System 2 **£385.00**

- Amiga A500 System 1 PLUS over £200.00 worth of software comprising 10 games, PLUS either SPRT2 or PHOTONIGHT games CD-ROMS

Amiga A500 System 4 WITH 500 FREE AIR MILES! **£449.00**



Includes everything in our Amiga System 1 package PLUS SPRT2 Graphics Package, disk storage scales for 25 shots, also Personal Player Pocket Modulator, Super PLUS 10 other FREE games worth £200.00 PLUS 500 FREE AIR MILES, enough for a return trip to France, worth £40.00 (approx. 1990)

AMIGA 1 MEG **£499.00**

Announcing the new Amiga 1 meg-on A500 system 1 with 1 megabyte memory expansion and clock card PLUS TV Modulator AND DRAGONS (Left a 5.25 disk 1 meg megagame)

AMIGA 1 MEG + **£519.00**

Our Amiga 1 meg + also includes the £200 worth of games software normally given with our A500 System 2 Games Pack.

EXTERNAL DISK DRIVES

Atari SP214 1 Megabyte	£199.00
Amiga A500 1 Megabyte	£199.00
Cummins 1 Megabyte Atari or Amiga	£99.99
REC-1 Megabyte Amiga	£99.99
Atari Megaflo 30 Hard Disk	£299.00

MONITORS

Commodore Amiga A500 Stereo colour Monitor the lead	£259.00
Atari SC1024 Colour Monitor inc. lead	£259.00
Atari 5M124 Mono Monitor including lead	£194.00
Praga CM8002 stereo colour monitor inc. lead for ST or Amiga	£249.00

CREDIT CARD ORDERLINE - 0930 75000 (Mon - Sat 9am - 5pm)

To place an order call the number above with your Card (or First Order) OR visit our website at www.digicom.co.uk or visit our store at 36, Wharfedale, Ferry Street, Milton Keynes MK2 5AZ. Delivery Computer Services and used it with your order to the address above. Orders are also made available at the address below.

DIGICOM

Unit 36, Wharfedale, Ferry Street, MILTON KEYNES MK2 5AZ
All prices include VAT and delivery by courier



DATTEL ELECTRONICS

EXTERNAL 3.5" DISC DRIVE

- 1 Modem extra low profile unit - only 17 high
- 1 Top quality drive mechanism
- 1 Throughout drive data-shielding outer ribbon
- 1 Assembly styled case finished in design colours
- 1 Fully compatible
- 1 Long additional tape capacity
- 1 Used tape's stable for permanent or fast track use

**NEW LOW
PRICE ONLY
£79.99
SINGLE DRIVE**

ONLY £149.99 TWIN DRIVE

ADD £2 FOR COURIER DELIVERY IF REQUIRED

EXTERNAL DRIVE SWITCH

- 1 Switch to test of external drives
- 1 Save the expense of internal drive unit capacity to use
- 1 50's & 80's compatible
- 1 Fits between computer & drive unit

ONLY £9.99



GENISCAN GS4000 AMIGA

**SPECIAL
VALUE
PACK**



STEREO BOOSTER SYSTEM

- 1 Boost the output of your Amiga to genuine stereo
- 1 100% pure power amplifier
- 1 5 band graphic equaliser
- 1 Computer with enables the stereo & video output sounds
- 1 Stereo output matched actual case with built in stereo power unit
- 1 Available in stock

ONLY £59.99



REPLACEMENT MOUSE

- 1 High quality direct replacement for mouse on the Amiga
- 1 Perfect game for alternative
- 1 Alternative control for wireless up
- 1 Optical system mounting 1000/sec

**Special offer - free mouse
mat + mouse house
worth £7.99**

ONLY £29.99

COMPLETE



MATCHING SPEAKERS

- 1 High quality speakers to any system with the best alternative sound reproduction
- 1 10 Watts & 100 Watts

ONLY £39.99 PAIR



LOW COST BAR CODE READER

- 1 Low price Bar Code Reader
- 1 Model 430, high performance, low cost Bar Code Reader
- 1 Works with any Amiga/AT computer system (please note factory set to the ASCII character)
- 1 Features a built in self testing bar code
- 1 Features a diagnostic indicator
- 1 One read status built into read head (3 of 5, Code 39, GS1/UPC)
- 1 Comes complete with read, ready to go
- 1 One to read

ONLY £189.99

512K RAM EXTENSION CARD



- 1 Available with/without additional clock option
- 1 Simply plug into memory bus, when done
- 1 Memory to be used with memory is suggested
- 1 Tested to tolerance - no outstanding error
- 1 Supports 4128K (8086) 1600K (8088) & 2048K
- 1 With 1600K/2048K additional clock (not automatically tested)
- 1 Battery backed to retain data (note)

**ONLY £19.99
FOR STANDARD CARD TO
ACCEPT 512K**

**ONLY £34.99
FOR VERSION WITH CLOCK
CALENDAR**

FOR THESE PRICES AND FOR BORDERS
RETURN SEND US: PLEASE STATE
TAX/NOT FOR SALE PRICES.
PLEASE FOR FASTEST FREE
POPULAR HOME/BAR PRICES.

- 1 As easy to handle than any scanner handling 1000 lines extending width & just 400 resolution enables you to reproduce graphics & text in even computer terms
- 1 Adjustable controls for brightness & contrast
- 1 A powerful picture for each day Publishing
- 1 With Amiga you have the ability to easily scan images, text & graphics into the Amiga
- 1 Powerful software allows for use a wide range of images & text
- 1 Some images in suitable format for most leading packages including DELTA, PLOT & so
- 1 Perfect for Amiga compatible
- 1 Package includes 1000000 scans, transfers & more data software
- 1 Unmatched range of software/graphics already test offered by other means of this valuable price

**SPECIAL OFFER
COMPLETE WITH DELUXE PAINT II &
DELUXE PRINT FOR ONLY £189.99
(INCLUDING HARDWARE & SOFTWARE)**



ALL ORDERS NORMALLY DESPATCHED WITHIN 48 HRS

HOW TO ORDER ...

BY PHONE
0762 746787
8AM-5PM
Card Unit

BY POST
Send cheque/BP note
payable to "Datatel Electronics"

FAX
0762 744200
OR CREDIT CARD (SEE
TERMS AND CONDITIONS AND US)

PLEASE READ THE FOLLOWING CAREFULLY AT ALL TIMES OF ORDER

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

ALL ORDERS TO BE PAID BY CREDIT CARD OR CASH

**DATTEL
ELECTRONICS**

DATTEL ELECTRONICS LTD., FENTON INDUSTRIAL ESTATE
OCCAM ROAD, FENTON, STOKES-ON-TRENT, ENGLAND.

SALERS ONLY
0762 744700

TECHNICAL ONLY
0762 744336

Are you interested in my-better-is-better-than-yours debates? Do you want to tell the world about your Amiga database of 5,000 train numbers? Have you calculated Pi to 2 million decimal places and want to send us the printout? Well, for crying out loud don't write to me about it. Hopefully no Amiga Format readers fit into those categories. Your questionnaires show that you are a very interesting bunch who have brains in your skulls and thoughts to express. I want to hear from you - controversy, ideas, problems, disasters, humour, criticism, offers I can't refuse - that sort of thing.

Apart from fame for several paragraphs, what's in it for you is the chance to win an Amiga Format T-shirt and binder. These will be awarded whenever I feel like it, to deserving missives. So get typing, writing or sending semaphore to Bob Wade, Amiga Format Letters, 4 Queen Street, Bath BA1 1ED. I can't enter into personal correspondence or send out signed photos of Andy Smith, and I reserve the right to turn your letter into an original chicken with wings that flap when you pull the tail.

QUESTIONNAIRE QUICKIES

Question 23 of the questionnaire in issue 13 of *SL-Amiga Format* was: "It's your magazine - what do you want to see in it?" We haven't had a chance to analyse all the letters as they are still pouring. Reading, following and experimenting their way in, but here are snippets from answers to Question 23. A full analysis of the questionnaire will appear in a later issue.

All pages numbered. A demo, some pictures or music on the cover disk. Also examples of the animation tutorials on disc. Philip Horncastle
Widnes, East Yorkshire

Music and art on the disk from the press/readers. Joseph O'Connor
Bognor Regis, Co. Derby

More tips on music, text and animation/graphics. Stephen Sparrow
Edinburgh, East

More hints on how to use drawing and paint packages. M. Jones, Ebbwstown, Gwent

I could not agree with you more. Brian Lockman and Jon Slater, our Contributing Editors for Graphics and Music, will be providing plenty of tips and tutorials in their respective areas. We are also backing that up through the disk which will contain animation, pictures, music and utilities that you will be able to use in conjunction with the features in the mag.

More in-depth criticism of creative and technical achievements in game reviews. More discussions about creative

processes using computers and not just about the computers and software themselves. Les Harles, Seaford, East Sussex

The creative use of the Amiga is an interesting area and I would like to do a lot more about the people that use Amigas and what they use them for. We've already taken a look at *Alternative Image* on the video side and more of these sort of features are planned. If you think the world would be interested in how you use the Amiga then drop me a line with the details.

Example uses of professional packages. Steve Carter, Banham, Essex

This falls into the same area, but reminds me that we are planning to do retrospective pieces on various bits of software - mostly creative stuff - to see whether they fulfilled expectations. We will be asking questions like: were the reviews accurate? Is the software still useful today? Did it do the job it was intended to do? How many new versions were there and why? This type of article could require examples of people who have been using a package for a year or two, so once again drop us a line if you think you've got something to offer.

A section discussing the best deals on the market for buying software/hardware cheaply. Michael Gundry
Hawthorn, Middlesex

The only way of doing that is to visit the ads in the mag and prices at your local shops. You can do that just as easily as to send any feature on it would be

justified because the situation changes so rapidly. However, features comparing the products are planned and these obviously take into account the price, quality, availability etc. of the software or hardware concerned.

On the free disk I wish there were more 'land' games like dominos, cribbage, word games etc. These can't be easily purchased otherwise and your disk would be a suitable outlet. Philip Smith, Cambridge

There are quite a few of these sort of programs in the Public Domain and we may put particularly good ones on the disk. However, it's much more easily covered in the PD pages where you can make your own mind up which ones you want. Plus for a PD mind games pack has been passed to the Tech Ed.

Larger and easier to understand assembly language course. Paul Bayford
Hales Green, Norfolk

More features at a basic level as the bulk of new users are not interested in C or Assembly. J. Hocking, Woking, Surrey

At present there are no plans for a general assembly language course. In order to learn assembly language from scratch you really need to read far books on the subject. We suspect it might be a better idea to guide you towards the best books: what do you think? What is in the position is much more specific handling of programming the Amiga. On

FORMAT LETTERS

LETTERS

FULL MOON BLUES

Dear ST/Amiga Forum! For what ever you turn into when there's a full moon, I've and computer magazines. My first thought when I saw the last cover was "Can't they tell anything about having to use one?" My husband'll think the safe thing to say is that he is not a computer aficionado, just a user you put that over parked up the magazine to see what the next story was - which said goes to prove that you on magazine covers, only then.

As a woman with various interests that are usually regarded as the male province, I'm used to seeing pictures of unattractive men in magazine covers but saddened that the company concerned thinks it necessary, also saddened that you seem to think that you have an exclusively male readership. I'm not asking for male models but I would be nice if computer magazines stuck to computer-related subjects for their front covers.

The article didn't go into enough depth and there were too many pictures in my opinion.

Miss P. Bates
North Haleswood, Norfolk

The biggest problem seems to be that computing is regarded as a male pursuit. It seems to me that the only way to eliminate sexual stereotyping in the computer industry is to increase the proportion of women involved with it. Most surveys state that 55% of computer users at home and business are male and therefore the advertising and magazines are aimed at them. It's not saying that computers are reserved for the exploitation of women, but you have to start with the ladies and not the effects to get a lasting solution.

The answer is simple - we need more women to get into computing, writing games, becoming journalists, buying magazines, logging on to bulletin boards and making themselves heard. There are plenty of successful men in the business but there's always someone willing to exploit the female body while it can be done for financial gain.

CONTRADICTIONS COME

The articles in ST/Amiga Forum IS about software piracy and the life of a programmer inspired me to express my views on these subjects. Did these two articles not contradict each other? In one you said that piracy was 'modifying and using people's livelihoods' and 'stealing the rewards of their hard

work', in the other you said that programmers 'earn lots and lots of money'. If both statements are true, then I for one would be happy to become a pirate if the only result of my evil deeds were to deprive some person of buying a second Porsche.

Robert Connolly
Bilwered, Dublin

It is possible to make a lot of money out of games programming, but that only applies to the minority. For every successful programmer with a sports car and large house there are unwise others struggling to make a living at a very tough industry. It's like any other industry - there's a minority at the top that take the cash while the majority are juggling to be part of that affluent minority. For instance, just for one Michael Jackson makes a fortune every day doesn't mean every long the garbage-band down the road into the same category with him.

Probably then having the bad news, which is why you don't hear too much about programmers juggling to make out a living. Perhaps they would like to write for us, and even the balance

BACK TO THE NEPPLES

I could not avoid responding to the letter from Dennis Flynn printed in your July issue. It would appear that it is not only beauty that is in the eye of the beholder. Mr Flynn appears to have applied a filter.

The front cover of your last issue clearly shows a man at the get down behind. Obviously I have not seen "4 1/2 Breeds" but I have certainly never met a girl with nipples on her back. I found your article a unbalanced approach to a difficult subject. It never even occurred to me to state the number of nipples.

I suspect the problem is that discussing sex is like discussing politics. People approach the subject with strong, predetermined views. They then read according to those views rather than to the discussion itself. The moment you mentioned the word 'sex' you were on a loser.

PS I'm sorry I'm not female.

John Bay
Leithworth, Herts

Andie Bob replies: Well, Louis, you'd have to come to terms with these feelings. There's nothing wrong with wanting to be a woman and I'm sure there are plenty of female clinics who will be prepared to help you out.

the Basic side this will probably take the form of a 'beginners' guide, while on the more technical side it will be about getting the most out of the Amiga hardware - much more suitable for both beginners and experts.

More PD reviews, more competitions, art gallery.
C. Coates, Gwent, Northants

No - definitely, maybe, yes.

More attention paid to basics. Don't assume that your terminology will be understood.
RD Chambers
Malmesbury, South Warks

Absolutely. Obviously there are some subjects where a lot of technical knowledge will be required, but everything will be written and presented in a clear and concise way with as little jargon as possible. At the same time, many readers already know a hell of a lot about these things, so we will throw in some special extras for them.

More info from other countries, comparing soft and hardware.
Cyd Winters, Aldershot, Hants

We are currently investigating getting columns in the US, Europe and further afield. If anybody thinks they fit the bill then drop me a line. We'll definitely be covering the scene abroad whatever happens - even if I have to make enquiries and print myself (I mean in - PUA).

More on programming graphics, fractals, quantum mechanics etc.

David Head, Ashlock, Bucks

We afraid we can definitely publish articles that may or may not be about quantum mechanics, but it's uncertain whether or not we can publish articles that definitely are about quantum mechanics - see "The Uncertainty Principle in Electronic Publishing". Weinberg for was it Brock? 1928 for possibly 1828.

Magazines reviews, a more varied selection of reviews each month - not just shoot-em-up games.
Alan Harey, Redruth, Cornwall

A good adventure column.
S. Martin, Burton-on-Trent, Staffs

We are not planning to have specific sections for war, strategy or adventure games, but prefer to

cover them in the main Games Play section. We certainly are not going to cover just shoot-em-up games - we are going to look at every game we can get our hands on. We are not biased towards any particular type of game, because we love them all. And Andy Smith, our Reviews Editor, is expert at, and seriously keen on, them all.

More music software, more hardware, less reviews of games which will not be out for months.
Michael Harrington
Great Gaddes, Essex

There is an ever-increasing competition amongst magazines to get the first review of a game, which has led to a lot of problems over the last year. FORT and Populus have been classic examples. We are not going to stop reviewing 'pre-production' games (as they might lack the packaging or title screens), but we will only review finished ones. We will try to avoid the never-ending the game to the streets, but with magazine lead times of between three and six weeks we write it that long before the review hits the shelves it is impossible to guarantee 100% that it won't happen. After all, you wouldn't want outside reviews, would you?

Lots and lots of free or very cheap stuff.

Scott Graham, Theop, Dorset

Sorry, this one completely floors me. Do you mean on the disk, because you get that free in the cover price. If you mean the special offers, we will continue bringing you lots of them every month. If you mean PD stuff, well, if you mean competitions, we will be doing those too. If you mean any thing else - I give up.

A fresh, clean, unsexed, preferably near £50 note.
J Bennett, Brimley, Dorset

Sex and violence, money, cancer mounted Ferrari.
C O'Rourke, Catford, London

Phones, bundles of £5 notes.
Denny Goodman, Haringdon, Cambs

Free Ferrari in every issue. Just keep it good OK.
Graham Ing, Duxington, Herts

Ferrari? No problem! That will be £252,000 on issue, please.

More Workbench, Amiga DOS
help would be excellent.
PC text, London

More Workbench there is, and even more Workbench there will be. Help with Amiga DOS depends on exactly what you are having problems with - write to Workbench and we can deal with it there.

Ken Bessinger (signed)
St Shandon, Leicestershire

How about a picture of me instead? No, I thought not.

Puzzle feature - perhaps even a crossword on the disk?
St McCos, Greenford

An excellent idea. We would love to put a puzzle or crossword in the magazine or, better still, on the disk. Does anyone out there fancy compiling one every month? Get in touch with me.

Little tips page, classified adverts, no demo games on disk - Workbench was crap.
John Smith, Sheffield

More tips both for serious staff and games are being provided. No plans to de-classify at the moment. I don't think I liked was crap and most people like the game demos - you are definitely in the minority on that one. A vocal minority? Write in!

Something for advanced users (advanced C routines?), fixes on other machines (a summary of what's happening), but so many of these game demos - they are basically a way for companies to advertise and they are really snail. More utilities and PD stuff.
A. Rumpston, Orpington, Essex

There is another side to the game demos - they also give potential buyers a chance to test the game out before they shell out fourhundred cash for them. And they're just lots of fun for free. The additional disk space also means that we can do more of everything.

A detailed list of recent music packages that are around.
J. House, Sheffield

The music pages should satisfy most of that request and there are plans to put buying guides on a database on the cover disk. These can then be updated at regular intervals.

Creative stuff - the more unusual the better.
J. Mitchell, London

We are at any creative, mostly with classics, and we have been told we are rather unusual as well. But seriously, yes, it's on the way.

More on DTP; printers and monitors. More game reviews.
St Freeman, Leicester

There is a DTP special next month and there will be more to follow in future issues.

My name spell correctly.
Rogers Raju, London SW17

Erno.

Please don't get like ACE. It really went downhill the last six months or so.
David Ovington, Worcester

The same standards set by the old Format, not garbage like ACE.
Michael Jackson, Barnaby, Lancs

This is Amiga Format not ACE and we will be catering for Amiga owners and all their interests. The Amiga market is unlike any other and this will be a magazine unlike any other. We aim to bring you the best at all times.

It's already perfect, especially now I don't have to read all that ST rubbish.
Anthony Houghty, Wigan, Great

I won't argue with the first bit, but the ST is not rubbish and I'll have one more top machine in better than yours' argument I will look the reader in a room with just a 2868 for company. But then...

A good balance between games, serious and creative software. Lots of reviews of new hardware. A cover disk with new stuff on it.
Matthew Bush
Watlington, Oxford

Search good to me.
More cutting software reviews - not too many typhoons.
Jeff Grant, Wexley

We won't stop staff off just for the sake of it - that's stupid - but if it's dull then you can rely on us to say so in no uncertain terms. Plus we review software only objectively, not to keep well in with software houses.

NO GO ON BAMEST

I have read SC/Amiga Format almost since it was launched and I must say that it was left mixed feelings that this Amiga 2000 user read that you would be getting the magazine into test. I have always found SC/Amiga to be very informative and read it for over a year now. I have many interesting information in it. I'm a magazine fan. All of the others do in a whole one.

However, my worst fears to be justified after the 1987 SC/Amiga Format became another game oriented magazine. The advertising says that SC Format will be edited by the authors for SC/Amiga team, while Amiga Format will be edited by the award winning ACE team. Personally, I would often read something from someone who knows what they are talking about, than someone who was merely for read going. I could be doing the ACE crew in question, but I am always of the opinion that ACE was primarily a games magazine. Can I have the editor's assurance that Amiga Format will not degenerate into yet another games magazine. The Editor's Assurance

East Tilbury, Essex

ACE was primarily a games magazine, Amiga Format is not. Amiga Format is here to serve all Amiga users in the best way possible. That means covering graphics, music, games, DTP, PD, video, personal, news, hardware and anything else there is a demand for. The members of the ACE team are professional journalists who do know what they are talking about and will produce the magazine you want. Anyway, will you be a better contributor? So as good as games? Welcome on the team. There's no danger of this becoming a games mag at all.

Anyway, that's wrong not going at its root - it's a very nice cover. I was thinking of the thing it on the cover hardware.

NO GO BAMEST

Amiga. On being my latest ACE magazine I was disappointed. All my friends editors disappeared immediately on closing comments, nothing. Then, on being SC/Amiga Format, more than most ever over me. It was, today, amazing. The ACE team to be coordinated on one computer in one magazine.

But why to warning? Perhaps there was, look at the bottom of the masthead of ACE issue 21. To quote, "kind regards to the DMF"

rejoice and failed failed every where. "Who needs that Anyway, goodbye, with Amiga Format, I'll write you all the way."

Andrew J. Houlder
Mansfield, West

There was nothing meaningful in that little request. However, it was written before we knew about the sale of ACE to DMF and was just a momentary bit of contact with some of our friends who work at DMF. When you've started around as much as some of us that you make friends at over the place - even with your competitors. A certain degree of help might be able to tell you more.

CONSOLE COMMUNISM

I purchased an A500 new months ago from my local dealer at £400 which included the standard software. A particular article which I read recently stated (paraphrased) reports of a future Amiga console to be released. Consumers who have paid four to five hundred pounds they will be let down with sub-standard software. When the Amiga was first released it carried a status symbol due to its sophisticated hardware and people have paid for that privilege. If a console is to be released based on A5000 technology Commodore will inevitably be required to sell the system at a competitive price what with the PC Engine, ST console, Sega, Nintendo etc. Will the select customer which has been accepted disappear after the Amiga console has been released? Those who will invest in the console may be unable to afford the price one price. If Commodore sell in as part of the future market the value may well be forced to produce sub-standard material to compete with inexpensive software. A500 owners will be left with a machine which may not be programmed to its full potential. A matter to be taken seriously as it would reduce a prospective hardware and software owners. **James Buchanan**
Bournemouth, Dorset

No plans for an Amiga console have been announced, and none are likely to be. The more likely is that the A500 will be upgraded into a 1 Mhz machine, making it even more powerful, and even cheaper for the technology involved. How so that, the existing kind of running-time later release software houses will help writing for the new A500 machine and there on things will only get better. In fact, it's only just beginning...

SOFTWARE EXPRESS

For
AMIGA and ATARI
(021) 643 9100



DUNGEON MASTER EDITOR



Bashing your level characters against a dungeon wall?
At last, the answer is here to all those frustrating late nights!
The Dungeon Master Editor

from Softix

Create shortcuts, new passages etc.
Open doors without keys!

Remove secret doors!

Print out maps of all fourteen levels!

Also includes the revised "Way of the Firestaff" with the "List of Spells", Character Attribute Chart, even more hints and tips and a brand new set of maps.

Available for the Amiga and Atari ST

£9.95

(Disk & Book P&P £3.00)

MIDLANDS
212-213 Broad Street,
BIRMINGHAM, B15 2UP
Tel: (021) 643 9100

For the best in
Service & Support,
visit our
Regional Branches

SOUTH
5 Exeter Street, (The Workshop),
PLYMOUTH, Devon, PL4 8AQ
Tel: (0752) 265276

S.C.C. MAIL ORDER

AMIGA HARDWARE

Amiga 500	From £199.00
Amiga 500HD	299.00
Amiga 500 1.25MB	299.00
Amiga 500 2.0MB	349.00
Amiga 500 4.0MB	449.00
Amiga 500 8.0MB	549.00
Amiga 500 16.0MB	649.00
Amiga 500 32.0MB	749.00
Amiga 500 64.0MB	849.00
Amiga 500 128.0MB	949.00
Amiga 500 256.0MB	1049.00
Amiga 500 512.0MB	1149.00
Amiga 500 1024.0MB	1249.00
Amiga 500 2048.0MB	1349.00
Amiga 500 4096.0MB	1449.00
Amiga 500 8192.0MB	1549.00
Amiga 500 16384.0MB	1649.00
Amiga 500 32768.0MB	1749.00
Amiga 500 65536.0MB	1849.00
Amiga 500 131072.0MB	1949.00
Amiga 500 262144.0MB	2049.00
Amiga 500 524288.0MB	2149.00
Amiga 500 1048576.0MB	2249.00
Amiga 500 2097152.0MB	2349.00
Amiga 500 4194304.0MB	2449.00
Amiga 500 8388608.0MB	2549.00
Amiga 500 16777216.0MB	2649.00
Amiga 500 33554432.0MB	2749.00
Amiga 500 67108864.0MB	2849.00
Amiga 500 134217728.0MB	2949.00
Amiga 500 268435456.0MB	3049.00
Amiga 500 536870912.0MB	3149.00
Amiga 500 1073741824.0MB	3249.00
Amiga 500 2147483648.0MB	3349.00
Amiga 500 4294967296.0MB	3449.00
Amiga 500 8589934592.0MB	3549.00
Amiga 500 17179869184.0MB	3649.00
Amiga 500 34359738368.0MB	3749.00
Amiga 500 68719476736.0MB	3849.00
Amiga 500 137438953472.0MB	3949.00
Amiga 500 274877906944.0MB	4049.00
Amiga 500 549755813888.0MB	4149.00
Amiga 500 1099511627776.0MB	4249.00
Amiga 500 2199023255552.0MB	4349.00
Amiga 500 4398046511104.0MB	4449.00
Amiga 500 8796093022208.0MB	4549.00
Amiga 500 17592186044416.0MB	4649.00
Amiga 500 35184372088832.0MB	4749.00
Amiga 500 70368744177664.0MB	4849.00
Amiga 500 140737488355328.0MB	4949.00
Amiga 500 281474976710656.0MB	5049.00
Amiga 500 562949953421312.0MB	5149.00
Amiga 500 1125899906842624.0MB	5249.00
Amiga 500 2251799813685248.0MB	5349.00
Amiga 500 4503599627370496.0MB	5449.00
Amiga 500 9007199254740992.0MB	5549.00
Amiga 500 18014398509481984.0MB	5649.00
Amiga 500 36028797018963968.0MB	5749.00
Amiga 500 72057594037927936.0MB	5849.00
Amiga 500 144115188075855872.0MB	5949.00
Amiga 500 288230376151711744.0MB	6049.00
Amiga 500 576460752303423488.0MB	6149.00
Amiga 500 1152921504606846976.0MB	6249.00
Amiga 500 2305843009213693952.0MB	6349.00
Amiga 500 4611686018427387904.0MB	6449.00
Amiga 500 9223372036854775808.0MB	6549.00
Amiga 500 18446744073709551616.0MB	6649.00
Amiga 500 36893488147419103232.0MB	6749.00
Amiga 500 73786976294838206464.0MB	6849.00
Amiga 500 147573952589676412928.0MB	6949.00
Amiga 500 295147905179352825856.0MB	7049.00
Amiga 500 590295810358705651712.0MB	7149.00
Amiga 500 1180591620717411303424.0MB	7249.00
Amiga 500 2361183241434822606848.0MB	7349.00
Amiga 500 4722366482869645213696.0MB	7449.00
Amiga 500 9444732965739290427392.0MB	7549.00
Amiga 500 18889465931478580854784.0MB	7649.00
Amiga 500 37778931862957161709568.0MB	7749.00
Amiga 500 75557863725914323419136.0MB	7849.00
Amiga 500 151115727451828646838272.0MB	7949.00
Amiga 500 302231454903657293676544.0MB	8049.00
Amiga 500 604462909807314587353088.0MB	8149.00
Amiga 500 1208925819614629174706176.0MB	8249.00
Amiga 500 2417851639229258349412352.0MB	8349.00
Amiga 500 4835703278458516698824704.0MB	8449.00
Amiga 500 9671406556917033397649408.0MB	8549.00
Amiga 500 19342813113834066795298816.0MB	8649.00
Amiga 500 38685626227668133590597632.0MB	8749.00
Amiga 500 77371252455336267181195264.0MB	8849.00
Amiga 500 154742504910672534362390528.0MB	8949.00
Amiga 500 309485009821345068724781056.0MB	9049.00
Amiga 500 618970019642690137449562112.0MB	9149.00
Amiga 500 1237940039285380274899124224.0MB	9249.00
Amiga 500 2475880078570760549798248448.0MB	9349.00
Amiga 500 4951760157141521099596496896.0MB	9449.00
Amiga 500 9903520314283042199192993792.0MB	9549.00
Amiga 500 19807040628566084398385987584.0MB	9649.00
Amiga 500 39614081257132168796771975168.0MB	9749.00
Amiga 500 79228162514264337593543950336.0MB	9849.00
Amiga 500 158456325028528675187087900672.0MB	9949.00
Amiga 500 316912650057057350374175801344.0MB	10049.00
Amiga 500 633825300114114700748351602688.0MB	10149.00
Amiga 500 1267650600228229401496703205376.0MB	10249.00
Amiga 500 2535301200456458802993406410752.0MB	10349.00
Amiga 500 5070602400912917605986812821504.0MB	10449.00
Amiga 500 10141204801825835211973625643008.0MB	10549.00
Amiga 500 20282409603651670423947251286016.0MB	10649.00
Amiga 500 40564819207303340847894502572032.0MB	10749.00
Amiga 500 81129638414606681695789005144064.0MB	10849.00
Amiga 500 162259276829213363391578010288128.0MB	10949.00
Amiga 500 324518553658426726783156020576256.0MB	11049.00
Amiga 500 649037107316853453566312041152512.0MB	11149.00
Amiga 500 1298074214633706907132624082305024.0MB	11249.00
Amiga 500 2596148429267413814265248164610048.0MB	11349.00
Amiga 500 5192296858534827628530496329220096.0MB	11449.00
Amiga 500 10384593717069655257060992658440192.0MB	11549.00
Amiga 500 20769187434139310514121985316880384.0MB	11649.00
Amiga 500 41538374868278621028243970633760768.0MB	11749.00
Amiga 500 83076749736557242056487941267521536.0MB	11849.00
Amiga 500 166153499473114484112975882535043072.0MB	11949.00
Amiga 500 332306998946228968225951765070086144.0MB	12049.00
Amiga 500 664613997892457936451903530140172288.0MB	12149.00
Amiga 500 1329227995784915872903807060280344576.0MB	12249.00
Amiga 500 2658455991569831745807614120560689152.0MB	12349.00
Amiga 500 5316911983139663491615228241121378304.0MB	12449.00
Amiga 500 10633823966279326983230456482242756608.0MB	12549.00
Amiga 500 21267647932558653966460912964485513216.0MB	12649.00
Amiga 500 42535295865117307932921825928971026432.0MB	12749.00
Amiga 500 85070591730234615865843651857942052864.0MB	12849.00
Amiga 500 170141183460469231731687303715884105312.0MB	12949.00
Amiga 500 340282366920938463463374607431768210624.0MB	13049.00
Amiga 500 680564733841876926926749214863536421248.0MB	13149.00
Amiga 500 1361129467683753853853498429727072842496.0MB	13249.00
Amiga 500 2722258935367507707706996859454145684928.0MB	13349.00
Amiga 500 5444517870735015415413993718908291369856.0MB	13449.00
Amiga 500 10889035741470030830827987437816582739712.0MB	13549.00
Amiga 500 21778071482940061661655974875633165479424.0MB	13649.00
Amiga 500 43556142965880123323311949751266330958848.0MB	13749.00
Amiga 500 87112285931760246646623899502532661917696.0MB	13849.00
Amiga 500 174224571863520493293247799005065323835392.0MB	13949.00
Amiga 500 348449143727040986586495598010130647670784.0MB	14049.00
Amiga 500 696898287454081973172991196020261293411568.0MB	14149.00
Amiga 500 1393796574908163946345982392040522586823136.0MB	14249.00
Amiga 500 2787593149816327892691964784081045173646272.0MB	14349.00
Amiga 500 5575186299632655785383929568162090347292544.0MB	14449.00
Amiga 500 1115037259926531157076785913632418069458512.0MB	14549.00
Amiga 500 2230074519853062314153571827264836138917024.0MB	14649.00
Amiga 500 446014903970612462830714365452967227784048.0MB	14749.00
Amiga 500 892029807941224925661428730905934455568096.0MB	14849.00
Amiga 500 1784059615882449851322857461811868911136192.0MB	14949.00
Amiga 500 356811923176489970264571492362373782272384.0MB	15049.00
Amiga 500 713623846352979940529142984724747564544768.0MB	15149.00
Amiga 500 1427247692705959881058285969449495129089536.0MB	15249.00
Amiga 500 2854495385411919762116571938898990258179072.0MB	15349.00
Amiga 500 5708990770823839524233143877797980516358144.0MB	15449.00
Amiga 500 11417981541647679048466287755595961032716288.0MB	15549.00
Amiga 500 22835963083295358096932575511191922065432576.0MB	15649.00
Amiga 500 45671926166590716193865151022383844130865536.0MB	15749.00
Amiga 500 91343852333181432387730302044767688261731072.0MB	15849.00
Amiga 500 182687704666362864775460604089535376523462144.0MB	15949.00
Amiga 500 365375409332725729550921208179070753046924288.0MB	16049.00
Amiga 500 730750818665451459101842416358141506093848576.0MB	16149.00
Amiga 500 1461501637330902918203684832716283012187697152.0MB	16249.00
Amiga 500 2923003274661805836407369665432566024375394304.0MB	16349.00
Amiga 500 5846006549323611672814739330865132048750788608.0MB	16449.00
Amiga 500 11692013098647223345629478661730264097501577216.0MB	16549.00
Amiga 500 23384026197294446691258957323460528195003154432.0MB	16649.00
Amiga 500 46768052394588893382517914646921056390006308864.0MB	16749.00
Amiga 500 93536104789177786765035829293842112780012617728.0MB	16849.00
Amiga 500 187072209578355573530071658587684225560025235456.0MB	16949.00
Amiga 500 374144419156711147060143317175368451120050470912.0MB	17049.00
Amiga 500 748288838313422294120286634350736902240100941824.0MB	17149.00
Amiga 500 1496577676626844588240573268701473804480201883648.0MB	17249.00
Amiga 500 2993155353253689176481146537402947608960403767296.0MB	17349.00
Amiga 500 5986310706507378352962293074805895217920807534592.0MB	17449.00
Amiga 500 11972621413014756705924586149611790435841615069184.0MB	17549.00
Amiga 500 23945242826029513411849172299223580871683230138368.0MB	17649.00
Amiga 500 47890485652059026823698344598447161743366460276736.0MB	17749.00
Amiga 500 95780971304118053647396689196894323486732920553472.0MB	17849.00
Amiga 500 19156194260823610729479337839378864697346584110688.0MB	17949.00
Amiga 500 38312388521647221458958675678757729394693168221376.0MB	18049.00
Amiga 500 76624777043294442917917351357515458789386336442752.0MB	18149.00
Amiga 500 153249554086588885835834702715030917578772672884512.0MB	18249.00
Amiga 500 306499108173177771671669405430061831157545345769024.0MB	18349.00
Amiga 500 612998216346355543343338810860123662315090691538048.0MB	18449.00
Amiga 500 1225996432692711086686677621720247324630181383076096.0MB	18549.00
Amiga 500 2451992865385422173373355243440494649260362766152192.0MB	18649.00

THE FIVE CLASSICS
Compiled from the
Amiga Format Top TEN of
all time great! Every one is an
absolute must for Amiga owners!

THE 16 BLITZ

16-bit
Amiga
Format
Top TEN
of all time
great!



ELITE (Amiga)
The ultimate action
game of your time!
Order Code: **AM202** RRP £19.95
The 16-bit price: £12.95

**BALANCE
OF POWER**
TWO

A brilliant strategy
game for two players.
Order Code: **AM203**
RRP £19.95
The 16-bit price: £12.95



**NEED FOR
SPEED**
A brilliant racing
game for two players.
Order Code: **AM204**
RRP £19.95
The 16-bit price: £12.95



HOW TO ORDER
Just make a note of the name and the order code of
each of the products you want to order then either
call our credit card hotline or fax for the order
form on page 123 and tip in the details.

CREDIT CARD HOTLINE
0406 740111



DEMARIS (Amiga)
The ultimate action game of your time!
Order Code: **AM205** RRP £19.95
The 16-bit price: £12.95

Order Code: AM206
RRP £19.95
The 16-bit price: £12.95

AM206

SUBSCRIBE NOW
to Amiga Format
at the remarkable low
price of only \$29.95.
See full details
on page 26

CREDIT CARD HOTLINE
0456 74011

THE 16BLITZ

THE LATEST AND GREATEST PRODUCTS
AROUND FROM YOUR RELIABLE
AMIGA FORMAT



**THE ALL-AMERICAN
AMIGA FORMAT
BASEBALL SHIRT**

It comes in white and black with
Amiga Format logo printed on the
center back and left breast. Shirts fit
the USA - wear your shirt with pride.
Choose between two sizes. Shirts in
Extra Large and pay the remarkable low price of
only \$12.95

Medium Order Code AM106
Extra Large Order Code AM207



HOW TO ORDER
Just make a note of the name
and the order code of each of
the products you want to
order then either call our
credit card hotline or
look for the order
form on page 26
and fill in the
details.



Code AM211

THE NEW ZEALAND STORY from Commodore, 999 £19.95, Amiga Format Price £12.95



Amiga Format
KICK OFF
999 £19.95 Amiga Format Price £12.95
Order Code AM110



THE AMIGA FORMAT BINDER

We want you to keep your valuable Amiga Format magazines. The 1992 white and blue binder holds twelve issues and makes them easy to find and use. It's a handy reference and a great gift. Each year Commodore gives the top 14.95. Order Code AM104. It's also not for 1992 for only £9.95. Order Code AM105

BACK ISSUES

ONLY £2.95. HURRY, BEFORE THEY SELL OUT!

If you're a new reader to the "Format" titles, we feel sure that you'll be anxious to catch up on some of the very rare earlier issues of ST Amiga Format magazine, each with its own cover disc but also full to the brim of great reviews, articles and news. Remember, there are limited stocks!

Issue 1 ■ Order Code AM001
Cover Disk: Amiga: Information items, What's New, Double game.
ST: Disk demo, Virus help.
Magazine: World place names evaluated, Graphics packages compared, ProSound, Superstar benchmarked.

Issue 2-6 ■ SOLD OUT! SORRY

Issue 7 ■ Order Code AM007
Cover Disk: Amiga: Comments, play

the game, MIDI design for your Amiga.
ST: Play Love One of Flying Duck, instant high quality ST art.
Magazine: Polyquartz of Top Post, Colour Printer, Speed Test on Construction Kit, Learn Basic.

Issue 8 ■ Order Code AM008
Cover Disk: Amiga: Burning memory generation, Purple Saturn Day demo.
ST: Purple Saturn Day demo, Embedded construction kit.

Magazine: AtoCrate (the computer pricing planner), Budget 85, a modelling package, Proteus (the workhorse for your Amiga), Cam's Handy Scanner reviewed.

Issue 9 ■ Order Code AM011
Cover Disk: Amiga: Play, July playable 2000 file games, ST: Internet, a wonderful multipurpose music game.
Magazine: Buy a modem from our suggestions, ColAmateur for the Amiga put through its paces, Separate our file with City by Day or Double.

Issue 10 ■ Order Code AM010
Cover Disk: Amiga: Coloured 1000000 demo, Learn Decoder 1.
ST: Jet-Markian playable demo, Learn Decoder 1.

Magazine: Upgrade your machine with extra magazines, Database Hard And softer from Hampton Samples.

Issue 11 ■ Order Code AM011
Cover Disk: Amiga: Good Money (spreadsheet demo), For magazine, add responses to programs.

ST: Archipelago, playable demo, Feltvision, agent up-mouse operation.
Magazine: What's new? a word compiler, Editor Part II, Information format, Why not invest in a photo screen? Here's the choice...

Issue 12 ■ Order Code AM012
Cover Disk: Amiga: Colours On, playable demo, Good X11 patch: your own special real interface, Root sets add sending messages to our disk, ST: Fun Fun, update demo of the brilliant of package.
Magazine: Video lighting, attach a mail system to your machine and make most, the best available printers.

Issue 13 ■ Order Code AM013
Cover Disk: Amiga: Whisker (playable demo of this totally exclusive game), Bankroll, create absolutely unique pictures with this wonderful generator.
ST: Special, an excellent playable demo of the strategy game, Magazine: Pagebreak's a brilliant STW illustration technique, the response rate, the choice of hard drives.



★ See some excellent reasons why you should subscribe on Page 20

THE 16BLITZ ORDER FORM

Please rush me the following items:

Order Code	Title	FORMAT Price

Total order

SEND THIS FORM TO: Amiga Format 16 BLITZ The Old Barn, FREEDPORT, Somerset, TA9 1BN
*No stamp required if posted in the UK, the Channel Islands or the Isle of Man

Name: _____
Address: _____
Post code: _____
Phone no: _____
Method of Payment (please circle):
ACCESS - YES - CHECK - NO
Credit card number: _____
Expiry date: _____
*Please make all cheques payable to Future Publishing Ltd.

HOW TO ORDER

And make a note of the details and the order code. Then either fill them in on the order coupon and send with your cheque, made payable to Future Publishing Limited, or give us the details of your Access or Visa card.

OR
Ring 0498 740011,
our credit card hotline.

PLEASE NOTE

- All items are dispatched by first class mail unless otherwise stated.
- All prices include postage, packing and Vat.
- You will normally receive products within 3 days of ordering. Please allow 2-3 weeks in case of temporary shortages.

Guru's MEDITATIONS

FOOTBALL CRAZY

It takes a great game to achieve the Amiga Format Gold award and Kick Off has earned such a stridence at Future Publishing that a KO League has been established. Naturally all the Amiga Format team are taking part and the matches are played on the Amiga version. So far the whole team is unbeaten, handing out dribbles to the New Computer Express crowd in the first division.

ST Format, Amstrad Action, 6800 Plus, PC Plus, Sunday pub.

THE ONLY FUNNY
COMPUTER JOKE... EVER...
UNLESS YOU KNOW DIFFERENT

How many programmers does it take to change a light bulb?

They won't touch it,
it's a hardware problem.

John and Anita are also taking part. However, it looks like it will be an interval buffer for the championship - currently led by Timothy Mahoney - with Vladimir Riddler and Norman's Muller's feet on his heels after a tense 3-2 draw. Hobson's Regis are battling for promotion from the Second Division with Gihan's Genets. Keep us posted on your own leagues and maybe Kick Off can get a national championship together...

PLEASE SEND ME A FIVER

Please send me a fiver

CENSORED

You're all as ugly as something that really is very ugly indeed, and I won't let you print your pictures!



Captain Whings

"...so there he is withling away about how crap the game is on an Amiga just because it's been ported across from the ST and they didn't spend several grand getting it converted, and I tell him that it makes no odds to the gameplay so what does it matter, and he chatters on about how you can easily tell Amiga screenshots from ST ones because of this line of pixels or other, and because the border strobes at a different rate when you jump up and down on one leg waving a vegetarian quiche in the air or some such nonsense, the guy thinks rant is a Jamaican fashion, and he just wouldn't accept that nobody gives a toss about it and we only want to know how much fun it is to play and..."

read: andy.may@bt.com) If you don't want to find a N45 on your desk pretty promptly! This really is an appalling state of affairs and we think you ought to decide for yourselves whether we print the faces of the whole Amiga Format team. So write to The Guru, 4 Queen Street, Bath BA1 1EL and send your vote for or against our mugs in print. We will count up the votes on Monday 28th July and have the results in Issue 2 - so you will have to be quick. The price! The joy of seeing representations of our far rougher in the mag, if covered

NEXT MONTH

Everything you need to know about the CFF comes by the people who know it best: Brian Gashen teaches us English notation, featuring sublimative reviews, informative materials, meaning and lots of instruction. Plus reviews of the latest video products, all the latest games, tips, advice, PC and a cover disk absolutely packed with useful and entertaining software.

MAKE SURE YOU GET YOURS

That was the first issue of Amiga Format, the Number One magazine for the Amiga.

If you want to ensure you get it every month with no hassles and a great deal besides, check out Page 38 for our amazing subscription deal.

ADVERTISERS INDEX

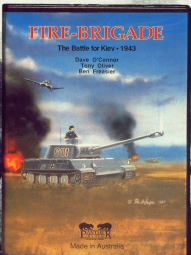
Amiga PD Library	60	Digpro	55	Magazines	64	Slice Shop	65
Amor	46	Digital International	55	More Deal	28	Software	65
Ascom	66	Dreamtime	36	Multi Tech	71	Sofware	66
Athens Consultants	71	First Micro	41	Mind Scope	60	Software Express	68
BBG	67	Futureplace	55	Minor Soft	8	Software Superstore	68
16-Bit Software	66	Gamer	47	Osco	62	T.C. Computers	65
17-Bit Software	60	George Thompson	78	PC, 3, 30	7	The Computer Store	71
Best U.K. Ltd	76	Hammersch	113	Paisco	55	Time Axis	65
Byte Back	50	Hobbits	90	Pamp Menu	58	Tips	65
Calme	65	Home Based Business Ltd	113	Pentram	12-13	Training	65
Castle Software	64	Intersoft	48	Plasma	58	U.K. Amiga Group	65
Club 6000	20-23	Lectro	64	Premier Micros	95	U.S. Deal	66
Databases	67	M.D. Office	48	SCC	108	WAVE	65
Databases	76	MUC	92	ST in a Purple	62	Worldwide	67
Datal	160-163	Main Media	113	Saturn	71		
Delta PI	74	Mario	113	Selen	68		
Digipart	101	Maze Technology	76	Serico	113		

Win the battle for Kiev

FIRE-BRIGADE

The Battle for Kiev - 1943

Dave O'Connor
Terry Oliver
Ben Friesner



Perhaps the most decisive and mobile battle of World War 2 is now yours to win.

It's easy to see why you'll find the war in Kiev a close to heart. With the capture of the strategically vital Kiev, Germany will gain the vital Ukraine bridgehead - the Fire Brigade - and will launch an assault on or even in the Soviet Redoubt. Take Army and your Thunderbolt Force to the Ukraine plains.



Specially designed for the lower range of personal computers, Fire Brigade offers these advanced features:

- Easy to learn and play
- High resolution graphics
- No under-bell levels
- Wide range of scenarios
- Realistic staff support
- Comprehensive reports
- German or Soviet command
- Computer or human opponent

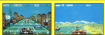
ACF rating 100+

Available for Amiga, IBM & Macintosh.

M I N D S C A P E

For further information on Mindscape Products and your local dealer contact:
Mindscape International Limited, PO Box 1075, Lower, East Sussex BN1 4DZ. Tel. 0444 486 545/547

16 BIT SOFTWARE YOU WON'T BELIEVE THE QUALITY



CBM AMIGA • ATARI ST

OUTRUN™

YOU'RE COOL, THE ENGINE'S HOT, THE GIRL'S CONSIDERABLE, A TANK FULL OF GAS AND AN OPEN ROAD... THE REST IS UP TO YOU...! THE ULTIMATE EXPERIENCE IN MOTOR SPORTS SIMULATION.

FOUNDATIONS™

"FANTASTIC GRAPHICS - SUPER ARCADE SIMULATION - TONS OF ACTION-PAKED PLAYERS"
— GAMES WORLD



CBM AMIGA • ATARI ST

WORLD CLASS LEADERBOARD™

THIS GAME WILL CHALLENGE YOU WITH THE SAME STRATEGY AND OPTIONS DECISIONS YOU FACE IN YOUR REAL GAME AND BECAUSE THE LOOK AND FEEL ARE SO UNLIKE, IT MAY IMPROVE YOUR ACTUAL GOLF GAME AS WELL.



PC • COMPATIBLES • CBM AMIGA • ATARI ST

STAR OF THE YEAR
IN THE
GAMES
WORLD
GAME

COMING SOON

STREET FIGHTER™
BIONIC COMMANDO™
PANTASM™
AVAILABLE ON ATARI ST & CBM AMIGA

YOU WON'T BELIEVE THE PRICE £9⁹⁹

KLASSIX

16-BIT

Screen shots from various systems.