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OPAL VISION STATE OF THE ART MAINBOARD The amazing Opal vision 24 - bit graphics board and software suite has been updated and is now

al Paint V2.0. Now includes full magic wand implementation and Alpha Channel that allows

photo compositing with selectable levels on a pixel by pixel basis. The Chrominance effect allows absolute real time control of image contrast, brilliance and re-mapping of colours. nimate V2.0 - Offering real time play back of animations created by ray tracers.

snerators, morphers and all other 24 - bit software.

Dpal Hotkey V2.0 - Display Opal vision graphics anytime with key

Quite simply, it's a spectsoular product." Antiga Computing.

This nower packed video and audio mixing, switching and transcodi Video Processor. This 19 - inch rack mountable unit is so advanced that it has it's own internal comreview and every aspect is software controlled for precisely timed and accurate functionality. The

yideo saite includes a wealth of inputs and outputs. There are 9 video and 10 audio inputs available, plus the 24 - bit frame store. Professional quality video inputs and outputs are available simultaneously in RGB or Y/R + B/B - Y. Composite and S - Video. Choose and 2 sources from these inputs, assign a transition or special effect and then trigger it manually or automatically. All of the transitions and effects provided by the OpalVision Video Processor are available for use by the Video Suite, the lin-

ear transparency key (Alpha channel and transparency effects) can be taken from the Video Processor and/or external video source and/or output to another production switcher. This allows transparency control between video sources on a pixel by pixel basis. The 10 Audio inputs (five co pairs) are fully software sequenced with smooth fades and full, 5 band frequency equalizate

OPAL VISION VIDEO PROCESSOR

It's a high quality real time 24 - bit frame grabber which doesn't require a time base converter, professional quality genlocker with croma and Lima Reyng, the 256 level linear transparency for allows the definition of transparency between two live video sources on pixel by pixel basis for smooth vignectes, antiulised text and super smooth effects. Plug this card into your Opal Vision.



er, the Opal vision Reaster thip provides an endless any two video sources (or an Amigo or Opal vision is the X or Y asis. Move it along a part. Zoom it. on was esstom library of useful wipes and effects and a was esstom library of useful wipes and effects and a

AMIGA 4000 / 030 w Low Price

Add this card and achieve 31 Khz, non interfaced output of Arriga and Opal Vision graphics and any incoming video source in either PAL or NTSC r Price available to registerd OpalVision owners. Retu

Megamix, Low cost, hi spec digital effects car-

tridge plugs into the printer port of the Amiga Take Two. Animation package

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Rombo Vidi Amiga 12 (RT) Based on the it selling Vidi Amiga 12. This all new version offers real

will again capture from any video source with true photo realistic images! A staggering 16.8 million colours can be utilised with incre

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al 3D YZ.

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in produce high quality images and an
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Brilliant " Graphics Paint Package " In terms of design and sheer specifications Digital Creations really seem to have done everything right. Effectiveness..." 99%. "I really can't fault the end results" - CU Amiga Review INDI PRICE £99.99 £149.99

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KindWords 3

The COVERDISK

all your home office needs.

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utilities and commands direct from your own customised Workbench control panel. (Not Workbench 1.3)

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COVER 51037

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Utilities

Maxon Magic



This is the utility that you simply must combination of 15 different screen that will not only be incredibly useful



The Maxon Magic screen saver to in all modes, even with graphic cards, and offers you a choice of 15 different etc. As if that isn't enough value for money, Maxon Magic also lets you assign sounds to most system events including Window/Screen open &

from the many sounds provided or simply use your own sampled IFFst With Maxon Magic your Amiga will

M

Video/Music





video with sound at 25 frames per second as well as quality full-screen stills from your camcorder or video recorder.

VideoMaster AGA works on the A1200 for extra speed and freedom to use other up to 640 x 512 resolution for stills.





and up to 48KHz in 16 bit mono on an A500; Workbench 3 look, in its own window and is fully compatible with faster Amigas.



direct-to-disk sampler package; the software special effects and extras such as the ability to print waveforms and sample information. The package allows sampling up to 84KHz

Programming



SAS/C 6.5

The standard C compiler for Streams and Complex

he C++ translator is compatible with CFRONT Version 2.1 from AT&T.

There are many other improvements including an enhanced instruction scheduler for the 68040 CPU and the 68882 maths coprocessor, an improved profiler, a friendlier interface to grep, support for C++ within CodeProbe and more. Workbench 3.1 include files are supplied. Upgrades start from £39.95 -

Prices

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NEWS

by John Butters

CD32 software hits top spot

CD32 software has become Britain's biggest selling compact disc games format, according to recent sales charts compiled by market research firm

lust five months after the console hit the streets, its software has taken more than 38 per cent of the total CD games market, outstripping Sega Mega CD and

Commodore's David Pleasance said: "It's taken us just a few months to dominate the CD software sales chart. "That's a testament to the quality of

the Amiga CD32 and the efforts of the "Programmers have only scratched the surface of 32-bit CD technology. The coming months will see even better games produced - and that can only increase our hold on the chart."

But the news is not all rosy for financially-troubled Commodore, with claims that disappointing Mega CD software sales rather than an increase in CD32's has caused the situation.

Industry sources say that PC CD-ROM has increased its market share during CD, while the CD32 has been static. They also point out that combined

software sales on compact disc still account for little more than three per cent of the entire marketplace.



Tower system coming our way

THE Amiga range will be extended further in the next few weeks when a tower version of the A4000 finally goes on sale, Amiga puting can exclusively reveal It is due to be officially launched at the massive CeBIT was first previewed - and will be available in Britain soon after the

The £1,949 computer has very similar features to its desktop sister, but also comes with a SCSI-II interface enabling data transfers tween compatible devices at 10Mb per second.
The A4000T is fitted with a 68040 processor, 2Mb of chip RAM

and 4Mb of fast RAM

Commodore will not be supplying hard drive models, although some of the manufacturer's trade distributors will be able to fit disks without voiding the machine's warranty.



Moonlighter find British home

AMIGA owners will soon be able to buy US-based Moonlighter Software's range of utility programs in Britain from Ramiga International (0690 770304). In addition to distribution, the Clywd-based specialist will be offering technical support and software upgrades to owners of the

Titles heading our way include back-up program Ami-Back, tools software Ami-Back Tools and combination package Ami-Back Plus Tools. And TapeWorm-PS enables a SCSI tape device to be used as another AmigaDOS device. Moonlighter vice president Hap Aziz said: "This will finally give our products the high profile we need where there is such a large number of Amiga users and

This is a win-win situation for both companies, but Amiga users outside the United States gain the most. We are looking forward to a long and fruitful relationship with Ramiga."

Video graphics go on show

THE cockles of visitors' hearts

were warmed to the core by the sight of rack upon rack of broadcast video equipment at the Video Forum show held recently at London's Wembley Exhibition Contro Tritec were there with their Director Il graphics board for video,

which looks like a serious competitor for the Amiga Centre Scotland's Harlequin.

G2 had their range of genlocks and Scala UK shared their stand showing off Scala MM300

But most interesting of all was DPS's stand, who had the Personal Animation Recorder (PAR) basically a board with a fast hard drive on it that emulates a digital disk

PLONK

Take your 24-bit frames you rendered in Imagine, plonk them on the PAR and record them out via composite, Y/C or component video straight to

any video recorder. You no longer need a video capable of single frame recording - this baby will send out pictures at full

With an optional capture card, you can even digitise up to five seconds of live video straight onto the PAR, touch it up on the Amiga and send it back

First PAL units should already be shipping and you can expect an exclusive review soon in Amiga Computing.

Among the interesting non-Amiga bits was Sony's new UVW range of Betacam cameras, recorders and

Betacam is a broadcast video standard used by many TV companies, and Sony have developed this new range of machines following the axing of their U-Matic SP Viva la desktop video revolution!

News briefs

Processing improves

IMAGEFX 1.5 has been upgraded to run specifically on EGS Spectrum, US-

The firm say the support brings the power of professional image processing to the high resolution 24-bit environment to deliver precise, fast and professional image processing.

It is available to all registered EGS Spectrum owners for \$19.95. In Britain telephone Silica Systems on 081-309

Games to be rated

COMPUTER and video games makers have now agreed a system of self regu-

lation designed to ensure responsible behaviour by the industry. Under the system, games will be rated according to age suitability, a move aimed at allowing parents to make informed choices about the game

playing of their children. Shops, however, will still be able to sell young children titles containing sexual or horrific scenes that are considered ideal only for older computer

Monitors return

COMMODORE expect colour monitors to be available to Amiga owners within the next few weeks following a shortage which left Christmas buvers unable to

find screens for their computers. David Pleasance said that after being out of production for several months, the 1084 and 1942 models are again being made and should be in

Emulation speeds up

FASTER PC emulation is now available for Amigas from German developer

Their latest Golden Gate board contains a 486SLC2 processor which gives a Norton SI speed rating of about 85 compared to 43 from the firm's stan-

dard 486SLC version. The 486SLC2 is claimed to be up to four times faster than a 386SX processor, and the Vortex board comes with improved and faster software. It will be sold by Britain by South Humberside-based Applied Systems

Now you're talking...

EDUCATION specialists Ten out of Ten (0742 780370) have announced details of a range of Amiga software designed to teach foreign languages in an entertaining way.

ents, teachers and pupils can monitor their progress within the grading system The program contains six colourful games including a word search and Invaders-

type shoot-'em-up which take children aged between 8 and 18 years through topics covered at school.

It assumes a little knowledge on the part of the pupil, but according to the developer "starts at some very easy levels" Project development manager Pete Davidson said: "We believe this package is

going to improve everybody's French because we make learning fun. "We supply points of reference for both teachers and concerned parents, and a nice

twist is that even the manual is supplied in French. The £25.95 package comes with manuals in French, English and a teacher version.



French: Klds learn with Amlogs

Getting to grips with GCSE

KIDS are now able to prepare for th software from Europress Software (0) 859333), makers of the top-selling F School series.

ADI GCSE follows demand from p ents for software aimed at helping th children at this key stage in their stud and will be available in three pac English French and maths.

It is aimed at pupils in their fourth a fifth year of senior school, and each p uses the space character ADI to guide s dents through the topics they will be c ering at school.

As the child works through activit ADI offers help, encouragement, a praise for jobs well done.

"We have worked closely with teach and educationalists to rework the [A range for UK students," said Europre

Alexa Czechowski. "The existing range has sold or 50,000 units in the UK alone, its irresist mix of fun and learning prov popular with children, parents and tex

ers alike." Each pack costs £34,99 and conta disks for 14 to 15-year-olds and 15 to vear-olds.

New crackdown on porn by phone

ael Howard.

sey will make it clear that transmission of obscene mateover bulletin boards and private computer links is a crimiconstructions act. And "video work" and "video recording" will be redefined for the Video Recordings Act to include moving images stored for display on computers.

Both measures have been added to the Criminal Justice

and Public Order Bill currently before Parliament and come

after an earlier proposal to outlaw simulated computs images. This followed the discovery of a file containing a pi-ture of a child's head merged on to a woman's body usin latest morphing techniques.

arrest traffickers in pornographic material and give the extra powers of search and seizure.

"Those who trade in pornography are always seeking ne ways to distribute their vile material, exploiting new techno-

ogy and challenging the law whenever possible," said I Howard. "I am determined to do all I can to frustrate the efforts at every opportunity. These proposals will help to prevent porno

hree years in prison and a substanti ine, with the toughest penalties fo hose selling such material.





(0652 688330) for £499

Gi i TECHNOLOGY



published by Commodore gives a fascinating look at modern day technology with pictures, animations, photos, video, narration, text, music and sound effects, over 260 topics in all. from the ball point pen to the space shuttle. Produced in an easy to read style this concise and

INSIGHT: TECHNOLOGY, Javishly produced by Optonica and



ntertaining reference title for the whole family is a real eve opener!









We take the operation of modern technology for granted, now see how it works with computer generated graphics and animations showing exploded views and talk through sequences. Over 700 photographs show in detail the workings of technology in the fields of the Home, Military, Communications, Medical, Leisure and Space.



A comprehensive index of over two thousand words allows you to go quickly to any topic, or simply use INSIGHT: Technology to browse and learn.

PARALLA

CD32
CDTV and A%70 DRIVES

OPTONICA.

ULTIMEDIA

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VS

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Colour prints cost less

PRINTER giant Star have cut the price of their SI-144 colour thermal transfer printer and opened presentation centres aimed at

giving better customer support. The firm say that although the machine was launched last summer at £569, increased production has enabled the company to

reduce it to £459 - less than many colour inkjet models But by using true colour pigments rather than liquid does. Star say the SJ-144's output is brighter than that of inkjets and will not smudge or fade.

In developing the printer, the company claim they paid particular attention to controls and paper handling functions to ens the machine is easy to use.

Fifteen LEDs give a summary of the printer's status, while zoom and two-page modes enable images to be printed at 100, 80, 67 or 50 per cent size for better document formatting. Output is at 360 x 360 dots per inch and it has a print speed in

colour of 1.4 pages per minute. It is sold through a nationwide network of "strategically placed" presentation centres, made up of retailers who have experience in dealing with computer users needing colour output. According to Star, the centres will guide customers to exactly the right printer for their needs and will give a high level of support."Users now have a far ereater choice of colour printing options available," said Star marketing manager Annette

"The SI-144 Presentation Centres will work closely with the end user and give them the best possible advice on the best value colour method to suit their needs."



Programs bundled for grevscale scans

THE latest hand scanner package from London-based Golden Image (081-365 1102) contains a range of software to give 256 gregocale-type results.

Among the programs packed with the device are scanning system AlfaScan Plus + OCR, while Merge It enables images up to A4 in size to be scanned. Touch Up can be used to brush up pictures once they have been put into the computer,

Centre

promotes

business

Amigas

A NEW centre has just opened with the

The Clywd-based Amiga Centre of Excellence will enable computer buyers

to be shown solutions to their individ-

Many leading developers of products from around the world have

and it has been given a huge backing

brings together professional aspects of equipment at every level in the world

of Commodore," said spokesman Bill

"Corporates will see multimedia for

ACE can be telephoned on 0690

their needs and discover how it all

businesses throughout the country.

range of hardware and software

and can import and export images to paint and desktop publishing software using a range of formats. The £135 bundle runs on any Amiga fitted with at least 2.5Mb of memory, and a hard disk is needed to run the OCR option.

Speeding

EXCALIBUR is the name of two 040 accelerators claimed to give the top-end Amiga speed cent. Although pricing remains to be fixed, RCS's British distributor Hydra Systems (0203 473333) expect to sell the boards for £763 and £1,351

Effects software comes free

VIDEO effects software Video TimeLapse is now bundled free of charge with Optonica's Simpatica single frame rendering system.

It allows timed control of professional video decks to produce time lapse sequences Triggering can be produced by various actions including additional hardware plueged into the mouse port. Owners of Simpatica v2 and later can upgrade free of

For users of earlier versions the upgrade costs £49.95, and for newcomers the complete package is priced £350. Optonica can be telephoned on 0455 558282.



Interface choice for ADPro SEVERAL features have been added to ASDG's Art Department Professional including a

choice of two user interfaces and extra support for third-party products. Version 2.5 enables users to control the software through list or button-oriented graphical user interfaces, the option apparently making the program easier to use There is support for display boards such as Picasso, Retina and Video Toaster, Fargo's

thermal printer, and the addition of six new file formats. A program called Cinemorph is included to convert images between 24 frame per secand film style and 60 field per second video-style time bases.

ADPro is sold in Britain by Meridian Software Distribution (081-715 8866) who sell upgrades for £41 and charge £199.95 for those new to the package

DIARY DATES

Anril 16 1994 Spring All Micro Show Venue: Rinoley Hall. Staffs

(0473 272002) exhibitors - some with Amiga software and hardware.

April 22 to 24, 1994

Oceaniser: Westwinster Exhibitions Britain's leading Midi and electronic music show with many household-

> name firms attending September 20-25, 1994

Venue: Earls Court (071-782 6893) their support for this large consumer

October 6-9, 1994 BBC Ble Bash Venue: NEC, Birmingham Future World area of this big show will contain the latest computer games

and virtual reality. October 26-30, 1994 Future Entertainment Show Venue: Farls Court II Organiser: Future Exhibitions

The biggest public show of computer and video games players and a chance

Overseas

March 16-23, 1994 Venue: Hanoper, Germany

(010 49 511 890) technology show often used by Commodore for the launch of new

You can't use Software this Powerful, and produce Documents this Good...



...or Can You?

atior d by new

t hasn't been a month of very good news for Amiga users over here. As this article was going to press, Commodore announced that they were pulling out of the World of Commodore-Amiga show, originally slated to take place in early April in New York City.

Commodore have been a major sponsor of the show (the only trade show dedicated to Amiga products in North America), and without the company's participation it wasn't viable to so on with the show

Even though the Amiga's popularity has been waning for a while in the States, the WOCA shows remained popular and well-Amiga users' spirits up. It's unknown at this point whether the Fall show in Southern California will also be cancelled.

In another blow, a caller inquiring about Gold Disk was told that Amiga development was being dropped.

After that user posted the information to on-line networks, a Gold Disk representa-"Contrary to this information, Gold Disk has not stopped support of their Amiga products. Gold Disk is suspending development of new versions of software pending further growth in Amiga's market share. To repeat, we are continuing supnort and will endeavour to solve problems Denny Atkin with the latest news from the other side of the pond

Commodore support waning

rent Gold Disk product owners aren't left port and possible bug fixes like WordPerfect users were, but it's unlikely Page, Professional Draw, or their other

RRILLIANCE

Sources close to Digital Creations (of Brilliance fame) indicate that the company have switched to development for IBM-compatibles; we may still see Brilliance 2.0, which is reportedly largely

complete, though. The final bit of bad news basn't been publicly confirmed but was reported in the ViewPort on-line magazine and verified by a source within Commodore. Apparently development of the AAA chip set has been suspended for the time being due to the costs associ-

There are reports that Commodore have been experimenting with a proto-Cirrus Super VGA graphics processor

This isn't as far-fetched as it sounds:

Commodore has said it's focusing of CD32 now, and the AAA chinset is to

high-end (read "expensive") for a gar Also, since Commodore has been talk ing about Risc Amigas running Windows NT as a possible future, it would make

sense to go with industry-standard parts AAA was revolutionary when it wa first announced in mid-1990 (yes, it's been in development for over four years!), bu at this point Commodore can find off-the shelf parts that will allow them to create superior graphics machine at a lower price than a proprietary design.

Rays of sunshine

On a brighter note ASDG have just shipped Art Department Professional 2.5. a major upgrade to their cutting-edge image processor: Soft-Lonik is finally nearing completion of their long-awaited PageStream 3.0 upgrade which promises to make Professional Page nothing more than a bad memory anyway; and a spectacular update to Oxxi's TurboText text editor is in the works.

ADPro 2.5 was mentioned in last month's column, but it's so cool I just can't stop talking about it. The specification sheets just can't get across how much easier the program is to work with nowadays, Check out the new user interface running on a 16-colour Workhands screen in Figure I. A more dramatic usability improvement is shown in Figure II. which shows ADPro's new compositing screen; you can now visually place elements on a picture in a screen mode of

your choice. And the incredible selection of ARexx macros for the included Fred utility give ADPro batch image-processing capabilities unmatched on any platform.

PageStream 3.0 has taken longer to wrap up than Soft-Logik initially estimated, but the program will definitely be worth the wait. I've had a chance to work with Alpha versions of the program, and it

> ties that are unmatched even by high-end Macintosh programs like Quark Xpress and PageMaker. revamped user interface (see the screen grabs). publishing features. Pantone colour support, and full AGA support are only a few of the features added. If you do find any-

has many canabili-



by Oxxi early this summer.

thing missing, a very complete ARexx command suite will let you add just about any capability imaginable. Professional Page users interested in upgrading will be overloved to learn that Soft-Logik is including a converter that will let you load your ProPage layouts into PageStream.

UPDATED

Recent betas are looking very complete, and you should see the \$395 package on shelves soon.

Finally, Martin Taillefer, who recently left his job as a software engineer at Commodore to go work for 3DO, told me that he's hard at work on an updated version of the TurboText text editor for release

The fully-configurable editor was last updated in 1991, and INOVAtronics' Edge and ASDG's updated CygnusED Pro have threatened to usurp its position as the Amiga's premier text editor. Taillefer like a good challenge, though, and plans to pack lots of new features into this

It's too early to list all the features, but among the new capabilities will be multilevel Undo, faster screen operation, and this is revolutionary - the ability to use wildcards not only in search strings, but replace strings as well! Look for a handson preview in an upcoming instalment of this column.

Characters (1 | Lines (5 | Blant C) | Eng (5)

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a hands

y now most readers of the February issue of Aming Computing will have realised that The Publisher CoverDisk suffers from a few problems. The need for a second floppy drive, and the program's demands on system resources have left many users bewildered and feeling cheated.

Though we admit to a few errors on our part and hold our hands up to inadvertently not stating the program's requirements clearly enough, we have been reviewing the whole CoverDisk situation in an effort to avoid the same sort of cock-up happening in future

Those of you who have contacted us concerning The Publisher will have already heard this, but for everyone Publisher was not what our readers expected it to be and we are straining to ensure that this sort of thing never hap-

pens again Problem is, it was the pressure from readers which led us to use The Publisher in the first place. Survey results. for example, indicate that almost 90 per cent of you are interested in DTP, and a huge number of survey respondents indicated the supreme importance they place on CoverDisks when considering which magazine to buy.

In addition, the replies we received suggested that a sizeable proportion of readers (almost 80 per cent) had 1.5Mb RAM or more and that just about every one of you had either a second floppy or a hard drive.

Reader surveys, partly because only a fraction of readers answer them, are never an entirely accurate refelection of the market, but they are often the only hard evidence we have for our readers' preferences and level of

equipment It is an accepted fact of life in the Amiga magazine world these days that if you don't give the readers some free commercial software, they'll buy the competition more or less no matter what articles, features, and reviews are to be found in that issue of the magazine

During the middle of last year, when it became apparent that the supply of good CoverDisk software was running low, we were told, informally, that at least one other major Amiga magazine would welcome the chance to stop using commercial software altogether. However, without the agreement of all publishers con-

cerned it is impossible to impose this sort of voluntary moratorium. From the industry's point of view, such a move is well

overdue. For every CoverDisk containing a free graphics package, one potential high street or mail order sale is lost. and if the freebie craze continues we can expect to see the Amiga serious software market strangled much more effectively than piracy could ever hope to affect games

This legal distribution of high quality commercial software for next to nothing is, of course, a bonanza for the

The Publisher: stupid mistake or the inevitable result of disk-mania?

readers, but if it kills the Amiga's still very healthy productivity market by flooding it with gratis goodies we, and you, will suffer in the long run.

For the moment, there is little prospect of the CoverDisk War letting up, as all Amiga magazines compete as fiercely as they can for readers, but as long as intense competition is married to over-reaching expectations, CoverDisks will con

tinue to pose a problem. Many of the packages given away last year - and this includes those of our major competitors - were advanced packages requiring extra RAM, a hard drive, or other hard-

GIVEAWAYS

ware to run properly.

Since the initial flood of giveaways, programs which run on an unexpanded 1Mb Amiga have become harder to find. and those which step forward as candidates are often of limited appeal

This means that the programs most users could benefit from are not of as much interest to most readers as those which most readers wouldn't be able to utilise because of hardware requirements. Confusing, perhaps, but a fact of life we have had to live with.

Now that the situation has come to a head with The Publisher, however, we can ignore the paradox no longer. In future, we will strive to find software which most or all of our users can run without having to upgrade their

If this means we can't at times find a package which matches the requirements of our readers (powerful and interesting to use, but capable of running on a standard 1Mb Amiga) you may find that no major freebie is included

with some CoverDisks.

When this leads you to buy another Amiga magazine or not to bother at all that month, we hope the knowledge that you, not we, govern CoverDisk policy will temper your disappointment.

A tribute

Brian Redhead one of Britain's most popular and respected journalists, died on January 23 after a short illness. He was only 64 years old, and for 18 years had been the voice of Radio



our only friend in the morning traffic jam We can say nothing that has not already been said in the numerous tributes and obituaries which have appeared for Mr Redhead since his untimely death, but his loss was one which British journalism, under threat from tabloid excesses, privacy laws, and a censorious

public and governmental mood, could ill afford. He, his voice, his humanity, and his shining example of integrity and honesty will be sorely missed.

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> nber of the Audit Bureau of Circulation 58.305 [bn-June 1993

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indWords 3 is a fully functional word processor and page design application designed with the serious Amiga user in mind. It allows you to combine text and graphics in a single document and print the results, maximising your printer's output to produce high quality colour or

black-and-white documents. KindWords 3 features a massive dictionary and thesaurus to keep your documents grammatically correct and interesting to read. Whatever you're looking for from a word processor, KindWords 3 is bound to have it

The entire KindWords 3 program resides over both of your CoverDisks. The program and dictionary are on disk 1 and the thesaurus and extras are on disk 2. You will need four blank disks in order to use the package

Boot your Amiga using disk 1 and when the Workbench appears open up the Awiga Computing disk. Inside you will find two programs: Make-Program and Make-Dictionary.

Double click on the Make-Program icon and follow the instructions. Do the same with the Make-Dictionary program. Repeat the above procedure for disk 2:

Make-Thesaurus and Make-Extras When you have finished you will have four disks making up the complete



DISK

KindWords 3 package. If you have a hard drive you can install the program by running the installer on the Extras disk. In order to follow this CoverDisk tutorial, hard drive users will need to copy the Docs directory on the Extras disk onto

If you are using a floppy drive insert the KindWords 3 Program disk and reboot your Amiga. Double click on the KindWords3 drawer and then the KindWords3 program icon to load up the software. You're now ready to start!

Once KindWords 3 is up and running you will be presented with the main editing window, including an untitled page, a selection of editing icons and the top bar menu options. The first thing you need to do is load up a previously written

Go to the Project menu in the top bar and select Open. If you are running from floppy disk, insert the Extras disk and open the Docs drawer, Click on the Poem file and finally click the Open button. You should now have a document that can be edited. Single drive owners should specify the disk name Extras: in the file requester and then hit Return The first thing to do is familiarise your-

self with the editing functions. Text editing is indicated by a cursor on the page which moves to the right as text is typed in. As soon as the cursor reaches the farright margin it is forced down onto the

Any words that split across the margin are word-wrapped to the line below. If

By clicking on the Formet button you can select how youwish to load or save text. This is useful if you are transferring text ross different computers



to select the size of page you want to work on. If the right one isn't le press the Custom button and

Left 8.5 3 84 Letter Right 8.5 CANCEL BS Letter Top 1.8 Rotton 1.8 US Legal Hide Tractor Header 8.5 Custon Footer 8.5 Hidth 8.5 **▼** Show Margins Height 11.8

you press the Del key, text after the cursor is deleted, while pressing the Backspace key deletes anything before the cursor -

these are the basic editing functions. However, we can affect more than a single character by using the selection technique. Go to the first character in the Poem document and click and hold the left mouse button. Now drag the mouse down. You will notice that the text becomes selected - inverse.

Pressing the Del key or Backspace key will result in the selected text being deleted. Using the selection technique allows you to perform actions on large

amounts of text at a single time To save the text you must go to the Project menu and select Save As. Type in Poem2 in the Document window and then click on Save. The new document will then be saved to the disk or hard drive, whichever you are using.

You can then regularly save the document using the Save option from the Project menu or by simply pressing the right-Amiga key and S. We will be covering more on the Save and Load requesters later.

Besides chopping and changing text we can also alter its appearance. Use the selection technique to highlight a line of text and then go to the Format menu. Select Typeface and you will see a list of the fonts presently loaded in the document. You can select one of these fonts or you can choose another by selecting If you select Other you will be pre

sented with a list of different fonts which you can load in. You can view each one from the Typeface requester by clicking in



ords 3

the Show button. When you have chosen the one you want the selected text will change accordingly. Using different fonts within a document can make it clearer and more interesting to read.

afWords competible file or as an Ascil text file

You will have noticed in the Format menu that you can also make text bold underlined and even italic. These formatting commands are useful for producing titles, subheads and captions. To try them out highlight some text and then select them from the menu - Plain returns the text to its original state.

KindWords 3 comes with a vast dictiomary which you can use to improve the grammatical state of your document. To load the dictionary, position the text cursor at the point in your document from

3 8 1992 Digita International

which you want to begin spell checking and select Spelling Checker from the Utilities menu

A requester appears asking you if you want to check the last word typed in (Check Word) or the entire document (Check Document). If you click on Check Document the spell checker will start comparing words on the page against those in its dictionary. If it cannot find it a requester pops up displaying the unrecognised word

At this point you can either type in the correct spelling and click on the Change button; choose to Ignore it or Ignore All occurrences of the word; or select the correctly spelled word from the dictionary's suggestions and click on Change. If the

To invoke the thesaurus select

document it will tell you.

can use to improve your parlance (don't know what it means? Use the thesaurus!). Thesaurus from the Utilities menu at which point you will be presented with the requester. Type in the word you are looking for in the Look Up window and

word is correct and the dictionary cannot

recognise it, click on the Save button

which will add it to its database. When the

spell checker has reached the end of the

features a massive thesaurus which you

Like the dictionary, KindWords 3 also

hit the Return key. The thesaurus will display any synonyms associated with the word and

whether there are any verbs, nouns or adjectives. You can click on these suggestions for further reference. Click on the Replace button to add the new word to your document or Original to skip back to the first word you typed in. Easy, ch?

Detail

The last and probably most important element when editing in KindWords 3 is the Document Info option. Select the Document menu and then Document Info which will produce a window describing your article in detail From here you can find out how many

words you've typed in, the amount of paragraphs, lines, characters and pictures the document. If you want information on selected text simply click the Selection button in the Document Info window

Now that you are comfortable with the basic editing options KindWords 3 has to offer we can move on to the more advanced features. In the following secyour copy of KindWords 3, print documents and alter the page style

Personalising KindWords 3 is a simple matter of selecting the Preferences option in the Extras menu. From here you can toggle the rulers on and off, change the amount of colours available and instruct the program to save at regular intervals.

Using the Preferences is simple and requires little explanation. Remember, make sure that you save it so that it is the same the next time you load KindWords 3. wish to save the file. Simply click on Save to overwrite the defaults.

As mentioned earlier, KindWords 3 is not just a word processor, it can also handle picture files - IFFs, which can be manipulated in various ways and printed

In the Docs drawer there is a sample picture entitled hippy.iffpicture which we the Utilities menu select Place Picture and from the file requester select the image and then click on Place. You will then be

presented with the Picture Requester. This allows you to change certain effects when the picture is placed in the document. Text Flow specifies how text fits around it - None will place the picture flow straight down while Contour will mould it around the image

Colour 0 indicates whether or not you want the background colour to be transparent or opaque and the Stand Off dictates how closely the text flows around the picture.

When the image is loaded it will use the palette used by KindWords 3 but you can instruct it to use its own by clicking in will alter the colours employed by the program and may produce an undesired effect

Once you are happy with the picture settings click on the OK button. The picture will load showing a cartoon man leaning against a wall. On each corner of the picture box are drag points. Pulling these will alter the dimensions of the box and either shrink or expand the picture.

drag boxes will result in the picture being sized proportionally. If you are unhappy with the original settings simply doubleclick on the picture and the Picture Requester will reappear.

Fortunate

The default page settings used by KindWords 3 might not always be what you want. How fortunate it is then that define your own pages. To enable page editing select Page Layout from the Document menu. A window will appear with various options for changing the page size and the margin widths.

To select a new page size simply click on the appropriate button. If the dimensions you want are not available as a default you can click on Custom and enter your own values. The margins, header and footer can also be altered by typing in

dictate how snug to the edges of the page The default measurement format for the Page Layout option is in inches but you can change it to centimetres by clicking on the Measure button.

When you load or save a document you Pictures can be enlarged and reduced or

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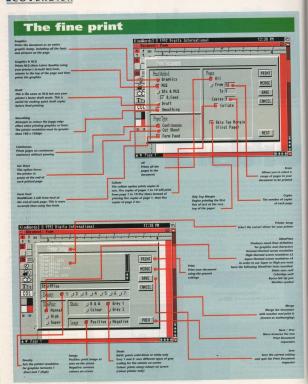
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document or as Ascii text. A KindWords program but an Ascii file can be viewed by any text reader such as More, MuchMore or PPMore (picture files will be ignored). Click on the Format button on the file requester and you will be able to select the appropriate options. detail. You can call up the help mode by selecting Help from the Extras menu. Simply select the topic you want more Once you are happy with the presenta-

printing it. KindWords 3 makes printing

Workbench3.8:Office/KindWords3/> Created: Last Saved: Tue Jan 24 18:59:31 1978 Thu Jan 38 18:59:53 1992 Last Saved By: Revision Number: Editing Time: Last Printed: 1 Minute (In Total): 24 Paragraphs: Lines: haracters: 514 Selection see here you can see how many words you've written as well as other valuable information



You can load any kind of IFF pict There are plenty of options suitable for all manner of picture formatting

To get to the Print Document requester

select Print from the Project menu. The requester may look fairly daunting but it does cater for all types of printing and can produce some pretty spectacular results. However, the best advice for produc-

your document a fairly straightforward ing good quality printouts is to experiuntil you are happy with the results. To explain in-depth about the printer

options would take too long, but you'll have noticed a brief description of each function in its own box on the previous pages, which should help you to produce some excellent results on paper.

CliVa v2.0

Mention the Amiga Shell and most people will run in fear. The Shell is probably the most avoided element of the

Amiga Workbench yet it is certainly the most powerful and For all of you out there who dread the name Shell, here is a

superb utility that will allow you to perform all manner of CliVa is a utility program that allows you to create a gadgetaccessible via the Shell.

You will find the CliVa program on disk 2. Open up the CliVa drawer and inside you will see three files - CliVa. Example and CliVa.Doc, CliVa.Doc has been written by the author and explains how to write CliVa config files. As an idea When the Example has loaded you will be presented with

the CliVa interface along with a series of gadgets. By clicking on the gadgets you will be able to perform various tasks such If you click on the Next gadget a new page will appear with a set of different gadgets which are fairly self-explanatory. The Spare gadgets are purely there for cosmetic reasons and will perform no action when clicked.

By holding down the right mouse button at the top of the can flip between pages by selecting Previous Page and Next Page and shrink the window out of sight by clicking on Iconify. But the most powerful option in the Project menu is Modify. By selecting this and then clicking on a gadget you can edit the command that was attached to it in the config file. As an Instructions gadget. An edit requester will appear with the actual command this gadget uses - c:mmpp sys:cliva/cliva.doc.

What this command effectively does is call MMPP (a text viewer) from the C directory and display the CliVa.Doc. Don't worry how or why it works as we have provided extensive explanation of the most widely used commands in CliVa. To turn the Modify function off all you need to do is select it again

from the Project menu. In order to gain experience at creating CliVa config files it's best you take a look at the Example.config. Load up the Ed text editor from your Workbench disk and from Ed load up the Example config which can be found in the CliVa drawer on your Amiga Computing CoverDisk

Now all you need to do is study the print out of the confie file on these disk pages and locate the appropriate explanation in the commands summary.

Apparently, CliVa does work on WB1.3 but needs Utility.library, which we could not locate. If in future we come across this library we will include it on the CoverDisk.

[pathname]/[CliVa config name]. And turn the page for a

Copying CliVa If you plan to copy CliVa to a hard drive or floppy disk you

will need to make sure that you copy the files across that CliVa uses. These are:

Any files in the CliVa drawer should also be copied

Faulty CoverDisk?

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CliVa commands summary

: SET_VAR (name) (value) This command allows you to create variables which can be used later in you config file. In our example the vertables have been assigned to colours which are used to define the colour of the CNVa interface. By allocating variables names, commands are easier to read and man

9: POS_WINDOW (x position) (y position)

This allows you to set the position of the top left corner of the CliVa interfe With this command you can effectively open CliVa anywhere on the screen.

 :-DEF_ICON (x position) (y position) (width)
Like the -POS_WINDOW command, -DEF_ICON
allows you to specify the top-left corner of the CNVa window (should be the same values as -POS_WINDOW) and the width. The height is controlled by the arrow of godgets and their dimensions

: - COLOR_WINDOW (letter colour) (background colour)
loss; you to specify the background colour and letter col Allows you to specify the background

O : - COLOR BACKGROUND (colour) Defines the colour of the CIIVa Interface background.

(): -FONT (font name) (fant height)
Defines the fant and fant size to be used for gadgets.

O: FONT STYLE (style) Lets you after the font style on gadgets. The style a Main - 0 . Underline - 1 . Bold - 2 . Italics - 4 . Extended - 8 You can use multiple style commands by adding the appropriate values together

(): NB_GADGETS (horizontal amount) (vertical amount) informs CIIVa of the amount of gadgets you will be using. If the dimensions or amount of gadgets exceeds the CIIVa window screen dimensions an error

message will be displayed. (): -WINDOW_TITLE ("Title")
With this command you can add your own title to t

Moke sure you use quotes.

(): -SIZE_GADGET (width) (height) One of the more important commo define the size of your gadgets.

1 -PIXEL BETWEEN GADGET (x distance) by distance) Defines the space, in pixels between the gadgets

(): -PIXEL_FROM_BORDER (left) (right) (top) (bottom)
Defines the space, in pixels between the gadgets and the
border of the CRVa interface.

: COLOR BORDER GADGET (top colour) (bottom colour) This defines the colours used for the gadget borders.

: COLOR GADGET DEF (letter colour) (background colour)
Allows you to define the colours of the gadgets.

: GADGET ICONIFIED (TITLE) Displays the title in the CiVa window when it has been iconified Do not use quotes.

[9: "D ("gadget title") (letter colour) (background colour) (fant style) (command) The above two lises allow you to define a gadget and specify its colour and fant style. The command is executed when the gadget is clicked.

Allows you to attach a next page command to a gadget.

Allows you to attack a previous page command to a gadget.

Quits CNVs. You could attack this to a gadget as a command.

File - "Example.config" SET VAR GREY 0 SET VAR BLACK 1 SET VAR HHITE 2 SET VAR BLUE 3 SET VAR F-BOLD 2 TO A PINNON TO THE PARTY OF THE

=S \vs[200]

-P

DD "View Cliva Instructions"
PROP Svs:acdiskutilstogo/cliva/cliva_eng.doc

=D "View This Example Config"
mmpp sys:acdiskutilstogo/cliva/example.config =D "Next Page>"

=D "Spare Button" WHITE BLUE 2 -D "Spare Button" WHITE BLUE 2 =D "Spare Button" WHITE BLUE 2

=P -D "Run The MMPP Text Viewer" WHITE BLACK

=D "Previous Page<" WHITE BLACK

D "Quit" WHITE BLACK

=D "Spare Button" WHITE BLUE 2 =D "Spare Button" HHITE BLUE 2 =D "Spare Rutton" WHITE RLUE 2

Workbench Screen Brida Corpo Score Biffor



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	When all at once I saw a croud
	A host, of galden daffadils
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The Amiga Computing CoverDisk is designed to be as simple to use as possible. Follow these instructions and you'll be up and running in no time!

New readers may have difficulties using our CoverDisk, so we have included this page to help you out. Below we explain how to copy files from one disk to another, how to copy the entire CoverDisk and how to de-archive programs. One

when get your CoverDisk is make a backup copy, then put the original CoverDisk away for safe keeping. As a rule you should also do this with the majority of your software



How to make a backup

To copy the entire CoverDisk, load up your Workbench disk, then either click once on the CoverDisk icon and select Duplicate, or select Copy from the Workbench menu, or open CLI/Shell and type:

DISKCOPY FROM BFD: TO BFD:

When prompted, put your CoverDisk (the source disk) in df0; and be ready to replace it with your blank disk (the destination disk). Follow the Amiga's on-screen prompts until the disk copy is completed. Now put the original away in a safe place and use your backup



Copying individual files

You might at some point want to copy a single progra from a CoverDisk to your compilation, Workbench disk or even your hard drive.

To do this you'll need the COPY command. As most CoverDisk programs are stashed away in their own directories, the quickest way to copy a program is to copy the whole directory at once. Use the command:

COPY (directory) 10 (needisk) ALL

where (directory) is the full pathname of the directory you wish to copy, and {newdisk} is the name of the disk

and directory into which it will be copied. For example, if you wanted to copy a utility called FRED from CoverDisk 27's Utilities drawer to a directory called FRED on your Workbench disk, you'd type:

COPY COVERDISKE?: UTILITIES/FRED TO WORKSENCH1.3/FRED ALL

Alternatively, you can click once on the FRED directory icon and drag it across to the new disk's window. This has the advantage of creating a new directory for you and copying the icon as well.

Once you have moved a particular program to where you require it you could experience some problems running the program. This is sometimes caused by the program not being able to find files which it needs to run.

A good example is the text files on the CoverDisk These have been crunched using PowerPacker, so when you try to copy them to another disk and then try to read them you can't unless you have also copied the Powerpacker library into your LIBS drawer



to your Work disk or hard drive make sure you also copy any other files the program requires, ie fonts, libraries, device drivers and Ccommands.

Workbench 3

If you have a Workbench 3 machine, don't worry - most if not all of the programs on the CoverDisk will work on your machines.

If the program is specifically designed to work with Workbench 3 then you may have to copy the program to your hard drive or Workbench disk using the process described earlier on this page.

De-archiving

Occasionally we have so many programs to fit onto the CoverDisk that we have to archive them. Archiving is where we take the entire contents of a disk and compress them into one file which is much smaller, giving us space to fit more programs onto the disk.

Dearchiving programs which are on the CoverDisk is a very simple task. If a program has been archived then you will need a blank disk to dearchive it onto. Say we have archived a program called FRED. You simply double click on FRFD's icon, and will be asked if

you have a blank disk ready to dearchive to. Type "y" or "n" accordingly. Your computer will then copy the archived file into

its memory and ask you to insert your blank disk. It will proceed to format the disk, and will then de-crunch the archived file onto your blank disk.

Once this has been done you can simply reboot your machine with the disk which contains the dearchived program on it and then use the program as

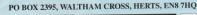
instructed in the CoverDisk pages. Note that if you have a Workbench 2 or upward machine you must boot with the CoverDisk write-

enabled to perform the dearchiving process.

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f you cast a brief glance over the development of the computer game in the past five years, it is obvious that we are reaching a watershed which could see the end of video games as we know

Though the chart toppers of today are still recognisably descendants of the origidevelopment is likely to push back the boundaries of what is possible until 21st Century games resemble science-fiction more than reality

The advent of CD-ROM, new super-fast processors, and early experiments with virtual reality promise a leap in technology which is more revolutionary than evolutionary, and the benefits could be felt in less

Pick up almost any computer game you care to mention and it will follow certain basic principles. The action takes place in an obviously synthetic 2D world, regardless of whether or not the game simulates 3D (the distinction is an important one). All interaction is via the relatively crude mouse or joystick device, and all situations which might crop up in the game have been programmed in advance and can't easily be Only sports and flight simulators cater

for human responses which change the way the game actually plays, and even then only in a limited sense. SKETCHED Ten years from now, however, a "game"

might be nothing more than a loosely sketched out world in which the program mer designs the parameters for the sort of obstacles one might meet, and the player, by his or her actions, determines which obstacles or challenges will crop up

Such open-ended game design, a "virtual world" with or without the 3D headsets, has been the goal of games programmers for years, as programs such as Elite and Ultima Underworld show.

Technology has never afforded the games industry a machine powerful enough yet cheap enough to carry this sort of entertainment to the public, but the moment for such



digital media will change the way the world uses computers... Nigel Seed, managing direc

Progress in the fields of Risc chip technology, artificial intelligence and alternative input devices mean that in ten years we could all be wearing body suits while standing in the middle of the living room with a headset on, the latter doing its level best to convince us we're deep in the monster's labyrinth.

The damage this could cause to ornaments and domestic pets as Dad - blinded to the real world - takes out another imaginary orc with his broadsword doesn't bear thinking about, but fun levels should

For the moment we are stuck with a halfway house, CD-ROM games which include oodles of high-tech 3D rendered imagery (Labyrinth and Seventh Guest

Current home micros are nowhere near powerful enough to create these 3D worlds in real time, so the player is forced to

Games without The AC team look at the culturing edge of games development and ask: "Where do we go from here?"

capable of.

the two."

Gremlin Graphics

At Gremlin Graphics the subject of gaming in the 21st Century isn't a topic taken lightly. Such is the commitment of managing director, Ian Stewart, that he has invested in two Silicon Graphics Indigo machines

To explore the parameters and to discover exactly what can be done within the structure of a game on the Indicos, Gremlin have also taken on the skills of two fulltime 3D modellers

Syd Franklin and David Lewis, working with SGI machines, spend the majority of their time rendering images and animations for future projects. When we spoke to David he was working on some

sprites for a car game (which is being kept under wraps). and Svd had just finished converting an intro sequence for Zool on the CD32 As Syd explained: "The Zool intro was something I'd done some time ago on the Indigo. When the CD32 came

along we had a storage system quick enough to just about handle it, though it was still necessary to shrink the Both of the 3D modellers at Gremlin have an obvious



TECHNOLOGY David sees CDs as a major medium for storing infor-

mation, but envisages that areas of technology will split. . "Games on a screen should, graphics aside, stay the same, but new interactive entertainment like Peter Gabriel's Xplora 1 CD will break off and create a whole

leaning towards creating games that feature the type of graphical reality that the Silicon Graphics machines are

However, Gremlin remain adamant about the most

important aspect of a successful title, and David illus-

"At the moment it seems that gameolay is giving way. to fancy graphics. In the near future people will have got

used to this standard of display and insist on a fusion of

At the moment many of the images that the Silicon



The 3D trio

Wavefront, Alias, and Softimage have between them worked with Industrial Light and Magic, LucasFilm, Walt Disney, just about every major TV station in the Western world, and a host of film. TV, and video production companies besides. Now they're moving into games, and we should all benefit

The software developed by the three companies is one full revision ahead of even Lightwave and Real 3D v2, the Amiga's best 3D packages (though the latter don't cost up to £40,000), and when used on machines capable of almost real-time rendering, the results can knock your socks off.

explore a landscape whose limits are strictly

When the latest hot consoles hit Europe

IDO, Jaguar, and Sega's Saturn will strugmore colourful and tuneful versions of the same old games. These Risc machines are a definite step forward, but not yet a leap. The leap should come with the release of

ded

orlds

2"

splt.

two machines currently in development. with a team of Risc chips running at instructions per second - a 68040 will only





Microcoom Intro courtesy of Prognosts and SGI's Indian

The second, Nintendo's Project Reality console, is due for an appearance in arcades this year, but retail release is still not slated

until late in 1995 Both machines have been designed from the ground up to pack enough power for real-time 3D rendering, and many an

as the hype war grinds into gear **PROTOTYPE**

Neither company have been able to demonstrate games running on prototype machines as yet, but the pedigrees which both Project Reality and PS-X can call upon

Nintendo's Project Reality is a joint project in conjunction with Silicon Graphics (SGI), whose lead in the world of super-powerful 3D graphics machines is

Using a hybrid of the R4000 Risc chip found in the SGI machines which rendered Terminator 2 special effects, Project Reality promises 100 mips (five times as fast as a 68040) and 100 MFlops to generate complex shaded 3D scenes in real time In keeping with these hyperbolic assur-

ances, Sony claim their PS-X console will be capable of 500,000 Gourand-shaded per frame in PAL mode this is enough to generate and animate a huge 3D object such as a tyran nosaurus or a complete landscape in

full smooth 25 frames per second (the same speed as a video or TV program). The chips tion specific

those used in Project Reality. A central processor is aided by a series of ASICs (applica-

circuits) handling sprites, polygon move ment, sound, and so on in much the same way as the Amiga's custom chips (which we'll have to call ASICs now, I suppose) have for nine years

In combination with hugely fast data buses, the multi-chip line up should leave jaws dragging the floorboards wherever it is shown to the public. So where will this leave the video game

(or "gamevideo" as some are now calling it)? Programmers have moved from machine to machine for years in search of the most powerful 3D processing power, so when faced with systems which can create almost photo-realistic games in real time they'll jump on the bandwagon till its axles collapse. No mainstream computer such as the Amiga or PC will be able to compete with dedicated 64-bit consoles unless they use

huge Risc-based central processors, but even then the general purpose machines

Graphics machines are creating will probably never see the light of day, but both Syd and David are onlimistic "There's a lot to be excited about in the near future.

companies have some hot ideas in the pipeline. For example, Project Reality which will combine Silicon Graphics hardware inside a Nintendo console." Syd, while not in disagreement, feels that virtual reality

what will really stoke the fire of imagination: Virtual reality is at a very simple polygon level at the moment, but once you can exist in the kind of world a Silicon Graphics machine can generate it'll be

In the meantime, the Gremlin 3D modellers are conant to be working on intro sequences for forthcoming

tiles like Utopia 2, and both freely admit: "We can't really complain, we have two state-of-the-art machines, the design world's our oyster, and we get paid



>

to bring their machines to the public for the dubiously low planned price of \$250, the traditional games market will see a squeeze to make Sonic the Hedgehog look like a gentle hug.

Leading edge games such as Labyrinth on CD32 and Seventh Guest on the PC are forced to compromise playability to achieve their superb 3D graphics, but PS-X and Project Reality threaten to remove the need for fudges.

for tudges.

All movement in Seventh Guest, for example, is limited to whether or not the programmers included a pre-rendered animation for that movement, and if not you can forget it. The result is a linear game which becomes more and more bedious as

your admiration for the graphics wears off. REALISTIC

A bit like those old text adventures, in fact. Remember them? How many times did you type "get sword" only to be told "I don't know that word"? Well, Seventh

Goest is the modern equivalent. By giving the new consoles a 3D map of the game world and enough bitmap textures to create a realistic look, the programners can let players just reacher their own adventures as they go along. Playability and presentation will at least begin to work together instead of competing for room on

To achieve this explosion in 3D graphics, software companies who up until now have relied heavily on DPaint and other 2D art packages have been forced to call in the professionals, and this has increasingly meant the use of SGI machines and software from one of Silicon Graphics's partner

Wavefront, Alias, and Softimage have all developed new versions of packages already much used by the film and TV industries, tailoring them to the specific needs of the sames programmer.



Virtual or not, you wouldn't want to meet him on a dark night

Electronic Arts

Looking into the future, EA producer Kevin Buckner believes many of the new technologies will play a huge role. Technologies such as multi-channel 30 sound will provide a good area for development. Games have progressed visually, presenting stun-

opvolgment. Games nave progressou vocasy, presenting suiting 30 graphies.

Electronic Arts see a similar improvement in aural technologies, providing the player with true spatial sound with reflection and absorption properties, thus exactly modelling the acoustics of

any given environment.

At the moment virtual reality technology seems to be split 80 per cent hardware to 20 per cent software and Electronic Arts see

per cent hardware to 20 per cent software and Electronic Arts see plenty of scope for improvement in the software department.

The multi-player aspect of a game can transform something from being good to mind-blowing and Kevin Buckner realises that the main problem with most attempts is that the single-blaver

game is designed first and only then is the multi-player support added. For the multi-player aspect of a game to truly succeed it needs to be fully designed and must receive the same amount of atten-

to be fully designed and must review use carried announce of announce of a control as the single-player version. Electronic Arts see the future of voice recognition technologies as having great potential for them. They see the keyboard as becoming less involved and the way forward being to slap a

microphone into the machine, add voice recognition to the hardware spec and tie this in with a multi-player feature Imagine the sort of game where you are stalking corridors and

For example, rather than create a broadcast-quality image, the software enables the programmer to decide how many polygons a scene can contain, given the power of the machine it will eventually run on, and produce graphics which can be guaranteed to animate at the correct frame rate.

animate at the correct frame falls.

Huge 3D sequences, such as those used in Psygnosis's Microcosm, can also be generated with an exact "travelling matte" of the landscape, which can be used by programmers as a collision detector. In this way, the real time elements of the game (sprines, explosions, and so on) can interact seamlessly with the pre-excelered backdrap,

SGI workstations, pumping out hundreds of mips of pure processing power, can produce graphics many times faster than any comparable desktop machine, but the speed advantage is of most use to artists during the design stage. One company can hear your partner shouting for help in the distance. As you get closer, his screams get louder – did that scream come from the left or right?

or right?
Electronic Ans intend to make full use of new technologies, and promise progress in visual technologies such as the VR helmet, larger, flatter screens, holograms and home theather, and in tactile technologies, for instance, VR body suits and artificial.

motion.

Headway will also be made in aural technology, in particular, voice recognition and acoustic environment modelling.

When asked whether increased development costs would force EA to play safe, they state that it is crucial for them that they don't adopt a defensive or reactive mentality and that a cutting edge

industry needs outling edge thinkers and do-ers. Bearing this in mind they intend to be more careful with their selection process, ensuring that they pick winners. This will mean having to be far more willing to kill an idea when it looks like going astray arither than trying to make a germ out of a bull stone.

As to whether the future will see gameplay sacrificed at the expense of graphics and sound, Electronic Arts believe this is crucial to keep effects and gameplay in balance, and that one without

the other results in a positive or orduct.

With more and more technologies coming on stream and more expertise coming into the industry Electronic Arts see the future as being a bright one, and that we are set for a fun.



end to the century.

This sort of quality should soon be a standard for intres and gar

working hard to bring as much realism as possible to tomorrow's games is Alias, whose suite of software tools is being used by eight U.K games houses on a variety of SGI workstations. Chief among the new tools is the MotionSampler, a body movement sensor system designed to track an actor's movements and translate them to the characters in a same.

Using this system, games houses can create human characters both in the games themselves and in the intros, which move in

Ocean Software

At present, Stephen Hey of the Manchester-based software company can't see even with massive improvements in the hardware that anything particularly new will happen because there are only a finite number of game genres.

Ocean believe the way forward is via multi-player communication networks. Through the use of satelite and land-based phone lines, players will be able to hook up and interact with "real" people thus creating a far more interesting environment.

On the subject of new platforms for software, interest has been firmly focused on Trip Hawkins's 3DO and Atar's Jaguar. Uke all new products, Ocean are waiting to see the public reaction to the latest consoles before committing themselves 100 per cent.

While there may be some bitter CDS2 owners out there who aren't happy with the straight port overs of software from the ASO. Ocean explain that when a machine is first launched upon the market, its abilities are largely unknown. It isn't unfil developers get to know a machine's architecture and quiest that its full potential can



be realised. Games like TFX and Inferno have development times of around two years and it's unlikely that the machines present at the beginning of the process will exist by the time the release date comes round. For this reason, the first batch of software for a new

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exactly the same way as real people - a seemingly simple consideration which lends the finished product an air of believability not possible using traditional animation

Laser scanners are also being used by software houses to create huge computer models from real world objects. To create a 3D Rolls Royce exact in every detail and proportion, simply stick it in the scanner and let the laser build a point-by-point map

of it which the Alias software then inter-Scanners sizes vary from shoebox to six first high, so complete human figures can be

scanned then made to move with the motion sampler, resulting in breathtaking realism. HUMAN

Combine this with a digitised 3D facial scan, multi-player environments and a VR headset, and you can see that the 3D gaming world is fast becoming an entity all of its

General trends of thought in the games industry today point towards the interactive multi-player game as the way forward, a game in which the gameplay is supplied by

took part.

By the turn of the century, using power gloves, headsets, and perhaps even body suits, we humans will be providing the game, and it will be the computer which is

the passive partner. Virtual reality, as discussed more than once in recent issues of AC, may be an exciting new technology, particularly in the

games scene, but it also brings with it certain medical and social worries. The link between our senses and our state

of mind is acutely sensitive, and to disturb it for long periods of time might cause major

Evidence for the damage you can do by messing too much in this department is apparent through the effects of sensory deprivation experiments, where trauma and serious psycho-somatic side effects are the result if nature's only bridge between the human mind and its environment is broken. Games which contain graphics and sound so realistic as to be indistinguishable from the real world pose questions of their own. Man has never been able to completely fool the thinking its world has changed radically, the technology never having been available. The day is in sight, however, when that could change, and the prospect of stepping freely between one world and another, though exciting, is also a little worrying. It is difficult to see how the Amiga's part

in the future of games will develop. As one of the most important players in the development of the computer game, the Amiga has already played a vital part, but if it is to continue at the leading edge it must become more powerful.

Later this year, the true 24-bit AAA chip set should be launched as the basis of a new Amiga, possibly powered by Motorola's 64bit Risc PowerPC chip. The combination will be a powerful one and there is no mason why a new Commodore console could not make use of this vast increase in capa-

Running at 66MHz with a big brother planned to run at 120MHz, the PowerPC chip will be as cheap, if not cheaper, than the current 680x0, but many times faster, and is already due to appear in both the A5000 and a new range of Macintosh machines. There is no reason apart from lack of marketing muscle and devel-

opment funds, then, that Commodore couldn't use the PowerPC/AAA combina tion as the basis for a console to match Sony. Atari, and the rest. Virtual reality games running on a new super-Amiga? Now there's a

which robbed children of the play experience and of social intercourse. Computers provided the game and the children simply Another Wavefront thought, eh? precursor to the fully virtual game

before becoming adventurous

sale" but more about becoming acquainted with the technology

While the company hasn't exactly got the best track record for

ners and other formula-driven work the likes of TEX and

playable and original games, with their myriad of licensed-based

machine are merely conversions of existing titles. As programmers Inferno are rapidly expanding their gaming portfolio. explore the technology further, increasing steps are made to use it Stephen Hey believes many new CD titles have concentrated to the full potential. In the eyes of Ocean, it's not so much "playing

solely on the presentation aspects and that playability seems to have been added afterwards. To beckon in the next generation requires a rebalancing of this

problem so that the traditional games that we know and love today will become the games of yesterday that can be nostalgically





the human players and the stunning graph-

ics by their powerful 3D computers. In

other words, the wheel will turn full circle.

In the beginning, the computer

game revolution was castigated as



Contacts For further information on SGI

machines and the software available for them phone:

Alias Andrew Howes, 0442 251211

Silicon Graphics Steve Webb, 0734 306222

Softimage Catherine Lowden, 071-287 0708

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full anaphics and/or realistic

strategy and includes plenty of relevant statistics. The game has been designed and developed by a true fan of the sport. It replicates everything that a real manager has to contend with and it's a totally unique production that anyone with an interest in Cricket should experience. A summary of the main features is shown below: . AXA EQUITY & LAW 18 league county teams, 50 overs per game · 4 Cup competitions including Berson & Hedges, Nat West, 70 different metch umpines with accurate names and strictness · Accurate player details Sumame, height and age. · 27 different player attributes. Most skills have a direct impact on the

· Fest planer selection. All name text is clearly presented · Batting and bowling averages. Top batting and bowling tables. · 3 Different training intensities to boost botting, bowling or fielding · Weather, pitch and light often make an impact on ground condition

· full match highlights let you watch the action ball by ball with



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· Real time transfer market. Player contract and wase neoctiations. . Sponsors Printer acress Finances Poor around fines Manager retion . 15 Options to after game preferences, Lood/Save game. · Instruction book with plenty of examples. . Plus many more fine details that we are unable to list here

Five years of development by a clever racing expert has led to the second revision of this Flat Horse Racing Simulation. Up to 4 players can participate as Owner Trainers with the primary

objective of becoming the top rated trainer, in respect of arize money wan at the end of each racing season (March to November). Thereare up to 35 other intelligently controlled computer trainers to compute against and compare your personal performance.

To achieve this aim you must discover a potential champion and train of the 47 big prize money races (Handicap and Group), eq. The Derby To give you an idea of the took provided in this come to assist you

reaching your objective we have listed the main features below: . 250 horses each with over 60 independent variables . 76 different mea courses (2 all weether) real life characteristics

minoring the diversity of rececourses in the UK (descriptions provided) World Guo Gricket Masters

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them so that they become coadale of competing well and winning any . • 20 Jackeys who vary in ability and booking fees, Orders & Feedback . Formbook and Win Summary Cards cover the previous 200 races. · Animated race display or just the result. View Declaration List for races

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ORACLE

sampled sound effects for

by Rocecall, reculated by the Tate, this program achieve joint second. This led to a serious approach from a well known national book maker. Rejected in favour of supporting the public cs: 104 wins out of 166, as from 2/6 to 1/9/93 mula: This program tells you exactly what to do. You are NOT ermitted to amend our system unlike so many other similar programs low confident can you be in something that invites amendments! earch & Development: Three years full time race analysis and

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Crunch

well-known maxim in the computer industry is that you can never have too much disk space, and or processing power. Normally, all me oost, but you can get more disk space simply, and cheaply, or for free. In the cheap category we can include utili-

like Pegger, PowerPacker Professional or

Expander, but there are also many

expansional public domain hard drive

pression programs that cost little or

meware and public domain hard drive pression programs that cost little or before we can discuss the merits of disk

in the property of the different prome to give you more space on your diskmedy, there are the archivers. These protake single files, or directories of files
and squeeze them down into one big (but
profully smaller than when you started)

You can't use these compressed files eachy – they must be decompressed first. here is a variant on this method for floppy six only which, instead of compressing the advidual files, compresses the whole disk,

seck by track.

Secondly, there are the compressorssee also compress files (obviously!), but
there than clumping them all together as
the file, they compress each file individually.

compression factor is not so great yet.

the real advantage of this method is that you are carry on using the files as though they are not compressed at all. As always, there are some that don't fit into either category, so l'Il deal with them last. But first, archivers... We in the Amiga world are very fortu-

we in the Amaga wond are very forturate to have such an enormous amount of PD software available to us. Comparing the amount of PD to owners of Amigas, there are probably more PD programs written per head than for any other machine.

This puts us in the enviable position of being able to find almost any type of program, including archivers, for free (or a minimal shareware fee). First up in our list are the LHArc family of programs.

LHAre is probably the single most popular format for archiving files on the Amiga. It appears in several forms including LHAre, LZ and Lha, all written by different authors. This like nearly all of the archiving programs, is designed to be used from the Shell, which rather limits its friendliness, although you can get Workbench frontends for LHArc which cut our most of the

DIRECTORIES

Most people will probably use LHAre from within a directory utility like Directory Opus or DiskMasker which allow the user to select files and directories to archive at the touch of a mouse button. LHAre files are saved with a file extension of 1zh or 1lm. My archiver of preference is Lha by Sedin Boberg.

There are several other archiving pro-



All you need to know about hard drives, as they get expanded, compressed, packed and archived by Ben Vost





HARDWARE

grams available for the Amiga. These include Arc, Zoo, Zip and compress files. Arc and Zoo have pretty much been left behind now, and are very infrequently seen

Zip (or PKZip, as they are sometimes known) files are more common on the PC. where they are the standard format. If you intend giving someone something for a PC, it is probably best to archive it in a Zip file rather than LHArc it.

Compress is a Unix file compressor that you will probably only use if you have a modem and an Internet account. When you decompress a compress file (confusing isn't it?) it usually overserites the original archive. so make sure that, if you want to keep it, you have a copy of the original archive somewhere else.

Arc files are saved with a file extension of arc, Zoo files with .zoo, Zip files with .zip, and compress files with an extension of .Z.

MASHER

If you're interested in crunching floppies, you can get a program called DMS (or Disk Masher System). This takes a floppy and compresses it track-by-track to another location, ie. your hard drive, or RAM: You can't use this archive as it stands

though; you need to decompress it back to floppy. DMS expects a disk (it doesn't care whether or not it is formatted) in df0: and again, onto that floppy. DMS files are saved with a file extension of .DMS.

And so on to compressors. The first thing that should be pointed out about compressors is that they don't usually compress files as much as archivers do. However, what you lose in disk space you gain in

functionality.

How to compress

can be compressed neatly by representing the repetition the archive file. Thus, as an example, this paragraph com-pressed would look something like this:

Thiusual melod for fil, especially Problems, * [Cef Idundancy Income. If you taken ligientencial looks itself \$3525you willief(). "*Comewhe) !"archiv(file. Thus, Isln example, (+ paragraph fed ould look[ome(1g lik((+: "+"code"f="compress"\$="over "l="and ""="

Now this example doesn't work very well becau too short a piece of text, but the first paragraph is 393 cha article for instance - the amount of compression can be eatly improved. The other main method is known as RLE or Run Length Encoding. Faxes and IFF files use this method to keep files as small as possible. It works like this. Take a file that is a mixture of zeros and ones like so:

Run Length encoding changes the file from being zeros

The first paragraph comes out as 218 characters, while the second comes out at 87. A massive improvement. ever, most files aren't as easy as that.

old but much-used PowerPacker Professional and the new kid on the block, Disk Expander. Actually, when I say new Expander is v2 of a shareware piece of soft-

The hest known

cruncher is still the most useful

EPU (and Disk Expander) takes advantage of a system of compression libraries called XPK libraries. Each of these libraries has a different forte. One might compress and decompress really quickly, but offer relatively poor compression rates, while another might take a while to compress, but give outstanding compression results.

ware called EPU.

The advantage of this system is immediately apparent. You start with a control program that watches for files being written to or read from the disk and then applies the compression algorithm the user has chosen

for files on that disk. If you decide that the compression format doesn't give you the results you wanted in terms of time saved or filesize, then all you need do is switch to a different compression library. If the author of a compression library brings out a new version, that is all you need update, not the whole program.

PowerPacker doesn't look at your disk except when reading files. If the file is a program, then PowerPacker automatically decrunches it on the fly; the only thing you might notice about using a powerpacked file is that the mouse pointer, or screen, liggles and displays strange colours while loading.

This is perfectly normal and is a feature of PowerPacker to show it is working. If your PowerPacked file is not a program, but data, such as a DTP file or a picture, then you will require some extra software to read that file. If the file is text, a

standard picture or animation, then the supplied PPMore, PPShow and PPAnim will **DATA FILES**

Otherwise you will need a program called PP (or PowerPacker Patcher), which decrunches data files as they are being loaded in the same way that PowerPacker does when loading a program. You can also find a shareware program in

display it with no trouble.

public domain libraries called PowerData. This solves a problem with PowerPacker and changes it into something more like disk expander. The problem with PowerPacker is Then you load it into a paint package or

whatever, and edit it. Then you save it back out. The file is no longer packed because PowerPacker doesn't get called to recompress the file. This is exactly what PowerData does. When you save a file that was PowerPacked, PowerData jumps in and recompresses it on the fly.

PowerPacker also comes as a shareware package with some of the Professional version's features removed, but as it only costs around £15, why not get the full version? There are plenty of other shareware or pub-

lic domain compressor programs around, the best-known of which is probably Imploder There is a package that doesn't really fi

into either category, and also some program that you wouldn't think of as file compression utilities. They all have to do with graphics. Pegger is an American product designed

to watch over your hard drive for Toaster Framestores, 24-bit IFF or Ham8 pictures, and when it sees one being written it automat cally catches it and converts it to Jpeg format Similarly, when a program that can't nor mally load Ipeg images, like Deluxe Paint asks for an image that Pegger has com pressed, it converts the Ipeg image back into a Toaster framestore, an IFF or Ham8 picture or a DCTV 3 or 4 bitplane image

This process could also be achieved if was have a program called Rend24, or you use a version of ADPro that comes with a program called Sentry. Both these programs can be set to guard a directory or disk, looking for file to be written. If they see something then they too can convert the image to Ipeg to saw space. However, they won't convert the image back to IFF if a program like Deluu Paint tries to load one of the converted files.

Contacts Product: Disk Expander

Supplier: Power Computing Tel: 0234 843388 Price £35

Product: Pegger Supplier: Ramiga International Tel: 0782 398840

Product: PowerPacker Professional Supplier: AC Reader Offers Price £14.95

• The shareware and public domain programs mentioned should all be available from any good PD supplier.



and widely occepted

What is Jpeg? The Jpeg graphics file format is named after its creators, the Joint Photographic Experts

Group. This is how it works. The Joeg compression algorithm takes advantage of the fact that the human eye can't distinguish between as many values of hue, saturation and brightness as a 24-bit display, and "smooths" shades together resulting in a simpler file. It then uses other data compression methods to further reduce the size of the file. Because saving a file as a Jpeg means that the original file is modified, the Jpeg image will never be the same as the original 24-bit file. This is known as "lossy" compression.

However, depending on the amount of compression, the differences between the original and the Joeg will almost certainly be too small to notice.



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GENLOCKS

ight from the very start the Amiga was a computer built to providing a revolutionary graphics box, the Amiga's designers took care to ensure that it could be fairly easily interfaced with video equipment and provide suitable outputs for conversion to various standard video formats

This meant that any graphics or animations produced with paint, animation, 3D or video titling software could easily be recorded to videotape for posterity. But not always as easily as you might

imagine. For instance, while simply recording the Amiga's graphics to tape can be quite easily accomplished by several models of Amiga (the Amiga 1200 has both composite and RF video outputs, as well as the standard KGB port, for example) combining graphics and video is a more complished to the composition which cannot be carried out directly by any present, or indeed past, Amiga.

past, Amiga.
Which is a bit of a problem when you
consider that video titles (and plenty
other video graphics) are often superimposed directly over video images

So how is it done? What magic boxes

make such TV-style visuals possible? How do they work, why would you need one, and how do you get the best from it once you have one? These, and more nagging questions, are the subject of this month's Survivor's Guide.

This might surprise you, but you'd be wrong if you thought a genlock was a piece of hardware you bolt on to your Amiga in order to add titles and graphics to your videos. Not entirely wrong, but certainly misinformed.

Genlocking per se actually refers to the process of synchronising one video signal, or piece of video equipment, with another – an absolute requirement if two video signals are to be successfully combined or mixed together.

SYNCING

The term genlocking derives from General, scording to some sources) Locking, which describes the function of synting the signals together. Genlocking is only half the story though, since it is a process called keping now which actually superimposes the graphics over video. So we can now see that a genical superimpose of the superimpos

graphics together. Genlocks come in a



wide variety of shapes, sizes and price ranges, and they vary in the number of different functions that they can perform, but the bottom line is that they all enable Amiga graphics to be combined with video images – some more successfully than others, and with more bells and whistles – but combined nonetheless. Some genlocks have mixing controls to

determine the level at which the Amiga graphics will be mixed over video. Other let you adjust the colour, brightness and contrast of the incoming video signal. Some have built-in RGB splitters in

some have built-in Rcds splitters in case you have an older, mono video digitiser. All have some form of selection between pure Amiga, pure video and mixed video/Amiga signals. And all have

The key to



as RGB input from the Amiga, though not all pass the RGB signal through, so if you use an RGB monitor you'll need to moure that your chosen genlock has an RGB pass-through.

So how does a genlock work? Without getting too technical (what's the point, you'd only fall asleep) the process of comming (or genlocking) Amiga graphics and video into one mixed video signal

and video into one mixed video signal sequires several conditions to be met. The first is that the genlock is (usually) semected to the Amiga via the RGB port, though at least one genlock model connects directly to the video port of the

POPULAR

The second is that the genlock is being and a video signal. This can come from a sariety of sources, including live camera, re-recorded tape, off-air TV, Laserdisc, CDTV or even another Amiga. Prescorded tape is by far the most popular.

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It may be necessary for the genlock to
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teers in
Amiga is booted, though most good genteers od digiteets on the second of the second of the second
in the event that no external video signal
to and
if the event that no external video signal
to and
if the present. Although this means that it

Others

Genlocking dos and don'ts

DO supply your genlock with the best quality video signals possible. One important step towards this is to use top quality videotapes if you are playing back from a video deck.

DON'T use unsuitable cables for the video signal. These include audio or telephone cables, bell wire or even mains cable. Use proper video cables (which you can buy from specialist

shops).

DO keep connections between equipment as short as is practical in order to avoid introducing unnecessary degra-

DON'T use mono video input if you need colour output.

DO use a genlock with RGB pass-through and an RGB

monitor if possible - your previews will be clearer and pro-

ducing Amiga graphics will be easier.

won't be possible to superimpose the graphics over video images, at least the Amiga will keep cheerfully chugging away and you can record graphics direct to videotape, even if you can't overlay them - which you might not meed to do

anyway. One of the genlock's functions is

to read the sync pulses which are present in all standard video signals and derive a new set of timing pulses from them which are used instead of the Amiga's own, internally-generated, clock pulses.

These pulses are passed to the Amiga via one of the RGB-port connections. This

DON'T expect broadcast quality from VHS video equipment and a cheap genlock. Quality is usually (though not exclusively) related to cost.

DO use overscan settings to get full screen scrolling and animaled graphics.

DON'T try to use RF video signals (such as those used by TV aerials) with your genlock – they won't work because they aren't compatible.

DO make use of Y/C video signals if your equipment can use them. You'll notice a substantial increase in picture quality.

DON'T use very bright colours in your graphics, especially bright reds and blues, as these are very prone to smearing, especially in the lower-end composite formats, particularly VHS.

> is one of the genlock's most important tasks, because in order for the genlocking process to work successfully the Amiga has to take its timing signals from the genlock, and if these are at all unstable then the Amiga may not perform properly, resulting in all kinds of problems.

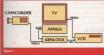
erly, resulting in all kinds of problems.

Once the Amiga is successfully synced to the video signal – in other words the timing of the lines, fields and frames which constitute the Amiga's video display coincide exactly with those of the external video signal – the conditions are right for superimposing the graphics.

In order for the Amiga's RGB output to be mixed with the external video signal it must first be encoded to the same format as the video — which generally means converting it to either composite, Y/C or even YC/CD (a high-quality broadcast signal format) video formats, depending upon the circumstances, and the geslock.

success

The genlock connection



There are quite a few different ways that a genlock can be incorporated into a video system; it all depends on what equipment you have available, and how you plan on using it. I came up with two different scenarios quite quickly, though the main differences between two of them revolve around the

number of monitors used, and whether the genlock provided an RGB pass-through to the Amiga. Figure I shows a fairly basic setup which would probably suit many domestic (and even semi-professional) users. The

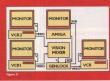
camcorder can be substituted by a video deck, Laserdisc CDTV or other video device. Some cost savings are made by using just one monitor (which could even be an ordinary TV), though producing

Amiga's screen display won't be as good as when an RGB monitor is used. It's also more difficult to see everything that you're doing simultaneously. A second monitor attached to the VCR output will help if you can stretch to it.

The obvious difference between Figure I and Figure II is the increased amount of equipment being used. In fact this represents just the video side of things – I've not included sound Kir (or some synchronising connections) for the sake of simplicity – but this kind of setup wouldn't be considered unusual in a professional video studio.

By placing the genlock downstream of the vision mixer if possible to superimpose graphics over video while being at to add mixes, wipes and other transitions to the vid unhindered.

Of course, you could add another monitor to view if



INTEGRITY In order to maintain the signal's integrity various electronic processes far

beyond the scope of this guide are applied, but suffice it to say that without them the genlock's output wouldn't be anywhere as good as it might be. Colour phasing. PAL phasing and

Colour phasing, PAL phasing and syncing the colour bursts are three functions which are necessary to keep everything on the straight and narrow.

Some genlocks also automatically clip the level of the external video signal, which isn't always a desirable thing though it does ensure that "hot" colours such as bright reds and blues don't cause the excessive smearing and "noise" problems that they otherwise might.

If you use a genlock then you'll know that it is usually the first palette colour of a graphic, known as colour zero, which is replaced by the video signal, leaving any non-colour zero content to be added over video. This is because the genlock reads the Amigas' RCB video cottput, as well as a signal output called zero detect. Every time an instance of colour zero is rapidly, all incidences of colour zero are replaced by video, resulting in the non-

colour zero graphic content appearing to

be superimposed over the video images.

some genlocks also provide inverse key-

ing. This is where all colours but colour

zero in the Amiga graphics are replaced

by video, providing a through-the-keyhole type of effect, which is why this type

of keying is sometimes called keyhole

Amiga to the external video signal and

then combining its graphics with video

by keying are the two essential parts of

genlocking graphics and video.

So we can see that synchronising the

This switching system is known as

Incidentally, you might be aware that



whether colour zero is present or not.

The RGBI keying system is often called

foreground mode (to distinguish it from

colour zero background mode). RGBI per-

mits any colour other than colour zero to

be used selectively as a key colour - for

instance palette colour one could be

green, and the keyer circuits in the gen-

lock could be preset to accept this as the

generally

equal than others and have an extra key ing system based on something called RGBI (where I stands for intensity) which, like zero detect, is an output from the RGB port used to send control signals to the genlock, this time based on the intensity of a colour, rather than specifying just

by the switching circuits (this time driven

EXTERNAL

of the Amiga cannot be synced to the external video signal. If you want to find out which display modes can be genlocked, open the ScreenMode requester from Workbench/Preferences and you'll find the relevant information displayed

And that's my attempt at explaining how a eenlock works without usine too many long words or too much obscure jargon. Because when it comes right down to it all you probably really want to do is just to plug a genlock into your Amiga and get down to some creative, nav even artistic, video work

it does is probably the least of your don'ts. A few simple tips could make a vast difference to your output. Happy genlocking!

Composite PAL genlocks are heaper, but

Get down to some creative video work...

by the RGBI output). In most cases foreground keying isn't necessary, and regular colour zero keving should be quite sufficient for most jobs, though it can be useful to have the choice sometimes

One last point to note is that genlocks can only work with Amiga display modes which are capable of being genlocked. This might seem like an obvious point but an A1200 or A4000) and a multisync monitor and commonly work in DBLPAL mode, for instance, you'll find that you cannot genlock graphics over video.

This is because the higher display rate

How the genlock actually does what

Jargon buster

composite video A standard video sign commonly provided by most video equa ment. Used by genlocks, video mixers and other video applications. Called composite because it combines brightness (Y), colo (C) and synchronising data into a single

field Half of an interlaced frame of vide containing either odd or even scan lines.

frame The basic video picture provided a two interlaced fields. In PAL this contain 1/25 of a second to display - hence the are 25 frames for every second of video.

genlocking Commonly (and incorrect understood to be the overlaving of comput graphics over video images by using a or lock. Genlocking actually refers to the pri cess of synchronising the Amiga (or other piece of equipment) to an external video

interlace The method used in video to deplay more information on screen by first deplaying one field and then its counterpart. A the fields alternate every 1/50th of a secon in the PAL system, the human eye is foole into thinking it sees a full image (or frame rather than the two distinct sets of horizontal lines which make up each field

keying An electronic video process which replaces either a selected brightness within one video signal (for example a Amiga graphic) with video images from second source, such as a camera or video recorder

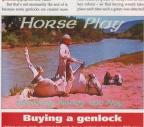
overscan By producing a video image a graphic larger than the visible screen area a TV or video monitor the possibilities of the image not entirely filling are drastical reduced. Such an image is said to be i overscan format. The Amiga can produce graphics in overscan resolutions - for example 736 x 576 pixels in hi-res interlace.

PAL The TV system used in the UK and several other countries

RF video A combined audio and video signal designed for transmission at radio frequency. Used in TV aerials and video recorder-to-TV applications. Not suitable to genlocking, vision mixing or digitising work.

RGB video The Amiga's native video sys tem, providing red, green and blue signal (and synchronisation information) to provide better quality output than RF, composite of Y/C video signals when displayed on a sull

Y/C video An improvement over compositi video as the brightness (Y) and chrominanos (C) signals are processed separately, result ing in better picture quality. Y/C is commonly used in S-VHS and Video 8 applications.



nless you're really strapped for cash, buy a genlock which has an RGB passleo 8 then go for a Y/C-capable model for improved picture quality altry selection of wipes which some genlocks provide.



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t's been a long time coming, but at last AC can provide the definitive review of the very latest European import. Although the necessary Toccata hardware has been in the office for some time, the lack of any documentation has

good with English documentation for the

before diving into the aforementioned software a brief introduction to the hardware might be wise. As is rapidly becoming the norm in the

world of 16-bit sampling, a Zorro slot is an essential for Toccata - which obviously puts the A1200 and below out of the Assuming you have the necessary slot,

adding the various I/O connections is the board providing a stereo line-in, an aux input plus a single stereo line-out. However the story doesn't end there, as

the board also provides a microphone input alongside a second auxiliary. But strangely enough, both these additional ports sit approximately half-way along the

SET UP

Assuming you supplied the necessary cabling, inputs, outputs and amplification, it's time to boot the control software and set up the board. Fortunately initialisation is taken care of on boot-up via WB Startup/User Start-up so all that's required is adjustment of the odd slider plus selection of the required input.

As you've probably guessed I/O is one of the board's strengths and this is reflected in the control panel which boasts both 8 and 16-bit sampling in both stereo and mono, plus the essential sample rate slider which offers rates between 5,513Hz and the ultimate of 48kHz - which is the

Not surprisingly you're provided with Line, Aux1, mic and mix options, with the last two being particularly notable in that the mix feature allows both aux inputs to be combined and recorded simultaneously as part of the same sample.

Although mike input isn't particularly unique, unusually it does benefit from a there's no need to pre-amplify the input externally prior to sampling. Obviously to

adjust the mix, some form of monitoring is essential and this is achieved via the selected signal/s to be monitored constantly, thereby allowing you to initiate

sampling at the optimum moment. Lastly the overall output level of the board can also be adjusted - however this shouldn't be confused with actual recording levels. In order to avoid recording samples that are either too quiet, or too loud ("clipped"), close attention must be taken to the actual input levels.

generic input slider as well as a pull-down indicator which operates just like an analogue VU meter. As a result, clipping or quiet samples shouldn't be a problem.

sound quality may be, it's only part of the overall sampling equation. As any muso will tell you, a sample is only ever as good as its editor - or in the case of Toccata, as

Samplitude-N

its usability within the overall Ami As you may have already guessed, the board is much more of a multimed

Vorsprung

Assuming you have a signal with appropriate recording levels, the next task is to activate the Toccata recorder, select a location and format for your new sample. and hit the Record button. The new sample will then be recorded directly to hard disk or RAM, depending upon your particular preference.

Once safely recorded you can play back direct from the recorder, or alternatively load up the Toccata jingle player and audition your latest import from there alongside, any others you may have in the same directory

As you've probably guessed, basic setup and recording are very straightforward. but how does the board fare when it comes to sound quality? Well as you'd expect from the creators of the VLab range of digitisers, Toccata's sound quality is exceptional. Indeed, after extensive testing I'd say it's probably the best yet for the

And better still, the default hardware also supports hardware compression which provides a very respectable disk space saving in exchange for a slight degradation in the signal-to-noise ratio.

In the case of 16-bit samples, this trans lates to an SNR of 70dB compressed, as opposed to 96dB uncompressed. However no matter how impressive the

dürch

Paul Austin puts Toccata, the latest in German audio

engineering, to the test

The VLabY/C connection As I mentioned earlier, the creators of Toccata

already have an impressive track record in Amiga video with their premier product, namely VLabY/C a digitiser widely regarded as the premier video grabber

thereby building up an entire, frame accurate

One of the major reasons for such acclaim is VLabY/C's ability to grab sequential video images via IFR frame grabbing option which allows multiple passes over a defined section of video -

Impressive stuff, but thanks to Toccata that's only the tip of the iceberg. Now, using the 16-bit talents of the board, full 16-bit audio can also play a

part in the equation. To combine the two, all that's required is a click

on the Toccata option within the IFR control panel and the process becomes totally automated, the end result being a perfect 16-bit soundtrack to accompany your 24-bit grabs.

Pro options

board than a traditional Midi-friendly direct-to-disk recorder. However considering its target user base it appears curiously lacking in some basic multimedia requirements, the most notable of which is the lack of direct ARexx support. As a result, its use within Scala or MediaPoint productions would appear tricky at best.

Another curious aspect is its affinity - or perhaps lack of it - to Midi. Although an upgrade to Samplitude Proll makes its pospling keyboard, the basic version has no direct Midi connection, so alas there's noway to transport or trigger samples via

As a result there's also no way of using the card under direct sequencer control. and even if this were possible, there's no

As a consequence, anyone in the market for a pseudo-sampling keyboard had better look elsewhere. Add to this a lack of support for that

videographic and musical essential SMPTE timecode, and Toccata's place in the market becomes rather difficult to pin down.

In its defence comes the accompanying sample editor Samplitude. As you've probably spotted, the basic Toccata software suite has a drastic lack of editing options

and as a result Samplitude plays an essential part in the overall Toccata equation. As you can probably tell from the similar to the vast majority of 8-bit Amiga sample editors, and of course there's no reason why you can't operate Toccata as

an 8-bit sampler if you wish. For the old guard Samplitude will be a very familiar with the usual cut and paste operations, mixing, fading and special

musik

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The speed of sound

Like most power exploits, 16-bit sound makes heavy demands on both disk space and your CPU. In the case of disk space the equation obviously varies according to the sample rate and format you require, but to give you an idea the average stereo sample recorded at 41kHz - otherwise known as CD quality - will require approximately 11Mb

As for the CPU, a 68020 is the lower limit. Using this you could expect to record a stereo sample at 32kHz but that would be the upper limit. For full CD or DAT quality an 030 processor would be essential, while quadro samples really need an 040.

Basically, with its various limitations Toccata is very much a matter of taste. The actual sound quality is exceptional which could carve it a niche as a direct-to-disk mastering system.

Obviously the link with VLab will ensure at least limited success in the multimedia department courtesy of existing VLabY/C users, while the convoluted approach to ARexx - via Samplitude - could make it an appealing investment for the hordes of Scala fans. However, with the strong market position of the SunRize boards and their existing links to all kinds of software, it's difficult to see how Toccata will successfully break into

Basically the problem boils down to software. If Macro Systems can continue to support and build on their existing hardware. Toccata could well become a world bester the question is, will they? Watch this space to find out.

effects alongside sample shifting, amplitude control and so on. In short all you need to manage and edit your creations.

also offers the odd power feature, such as very advanced range control. Thanks to this feature you can select an infinite number of ranges within the sample and then employ the program's playlist feature to sequence the various ranges together.

To do this you're provided with a mini single-track sequence from which any one of the ranges can be selected and dropped into the sequence along with a user-definable repeat. Once all your ranges are in place you simply hit the play button and the playlist kicks into life, leaping around the sample to run the sequence

PROJECTS

Another impressive element is the program's ability to combine and split projects. A project is simply another name for a sample which in the case of Samplitude can be either mono, stereo or quadro

projects. As you've probably guessed, thanks to Samplitude Toccata can play twin stereo samples simultaneously which can either be built up from four individual mono samples or twin stereo recordings - and of course any four-track sample can be broken down either into stereo or mono for additional editing if necessary.

ARexx is another added bonus of the Samplitude environment. Although ideally Toccata should have an ARexx port all of its own, at least Samplitude can provide an alternative window into the world of multimedia - if by a slightly









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Ezra Surf's Postbaa

Cut out the middle men

After reading your DEN Citizen selling their ProLaser 6000 direct to the public, I had a thought. Why

the public? Maybe then they could sell the CD32 at £199 or £149, the A1200 at £249. and the A4000/030 for £699 or even less. This would allow their machines to sell at very competitive prices, could easily

drop below PC prices, and could blow away Sega and Nintendo! Sales would rise and Commodore could still make a healthy profit. Dealers

could still sell Amiga hardware and softa problem for them to lose Amiga If there are more Amiga users, sales of hardware and software will increase.

making up some of the difference the dealers would lose by not selling the Amiga range. At first it would cost Commodore lots of money to start a sales division. They would have to build Commodore shops

Stepen Browne, Camberley

and advertise extensively, but they would get their money back. Finally, can people stop complaining

about Commodore and the new chip sets? Enjoy your Amiga! I paid £1,500 for my A4000/030 with 240Mb hard drive and 6Mb RAM only to find the same machine after a few months would have cost me

only £1230 Do I feel ripped of by Commodore and

feel the urge to buy a PC? No way, My A4000 is still a great machine and I enjoy using it. It's obvious that the A1200 and CD32 are going to remain the same, the A4000/030 is going to be replaced by the AA+ chipset, and the A4000/040 is going to be replaced by the AAA chipset, but I don't care. I'm looking forward to the day, actually

The Amiga has a future, no matter

Commodore UK didn't put you up to this letter, did they? Seriously, though, I'm glad you haven't been swamped by the waves of gloom encouraged by some

sections of the Amiea world since Commodore's financial figures Yes, the Amiga has a very bright

were announced.

but there you have it.

future, and yes it will develop as it goes on, with a AAA chipset machine appearing some time this autumn (we believe) to be followed by the much vaunted Risc-based Amiga with

Windows NT capability. However, your idea for selling Amigas direct to the public stinks. Sorry,

Commodore's success has been due in no small part to the efforts of third parties. Everyone from the small high street computer store to the peripherals manufacturers have supported the Amiga by building businesses around it (making money in the process, of course), and if the intricate dealer network was damaged the Amiga

would suffer. Cutting the high street man with his

technical support and advice out of the Commodore chain

would reduce the machine's presence on the high street and lower the standards of service we receive. In addition, the dealers would probably drop the Amiga altogether if the biggest chunk of business was taken away from them.

Direct sales are, more or less, available through the mail order companies, and if Commodore were to invest in a chain of shops, they would be forced to sell the Amiga at a higher price than present to recoup the investment. Sorry, but as business plans go, this is a concrete rowing

Analogue woes I have an Amiga 1200 on which I play

Frontier Elite II and Knights of the Sky. Recently. I purchased an analogue joystick but find that it will not work on these games. Can I "fo" this or is there some way I can add the software to my joystick? The games are brilliant but the digital joystick I also

I'm afraid that if a game does not contain the code to accept analogue joystick input, there's nothing you can do about It. The number of Amiga games which don't accept analogue joysticks is a reflection of the fact that most Amiga loysticks have always been digital. whereas most PC sticks are analogue.

On most games, you can get round the digital controls by selecting mouse control, then plugging in a Gravis Mousestick, but these are expensive and only for the dedicated flight buff. Write to the games companies con-

perned and express your preference for analogue control if you want to see it included in future games. You might also ask Digital Integration

why their superb Tornado game accepts analogue joysticks but has no facility to calibrate them, making the option about as much use as a chocolate teaspoon.

Game over, man!

Just the other day. I finished a rather long and arduous computer game (I won't say which one, as most of them are culprits these days) which rewarded my perseverance and dedication with a load of rub-

The final screen, at which I had expected a groovy animation, some enthusiastic "well done" back-thumping, or even just a nice tune, was no more than a static, badly drawn picture with a few words on it. Anti-climax or what?

It seems to me that the biggest problem with the games industry today is that they have foreotten the basic psychology of game playing. We don't do it just to spend some time - there has to be an objective or series of objectives and we should be prompted towards them and rewarded when we achieve them. Otherwise, what's the point in finishing a game?

All right, you get that inner glow of self-satisfaction, but this is dampened by the feeling that the programmers didn't think finishing the game they themselves programmed worthy of congratulation or even much note. Is this another indication of the get-rich-quick attitude so many software people have these days?

this motivation that classics are born, not by marketing men with slide rules and calculators where their pleasure centres should be. Would Lemmings, Populous, Manic Miner, or Elite have been half as good if the authors hadn't written from a sense of fun and love of

So the message is: fire the marketing men and hire some of us unemployed games players - we'll keep you right, and lower the unemployment figure at the same time!

games, as they so obviously did? No!

Hmm - this is a little extreme as reactions go. Why should you get

so het up about an end-of-game screen? I suppose your criticisms are valid, but most of the classic games you mention had no decent victory screen either

On the other hand, modern games design does seem to concentrate too much on eraphics and sound to the expense of playability, but the game players, encouraged (perhaps) by the games magazines, are as much to blame as the software companies,

When a preview appears in an Amiga magazine, all you see of the game are some screenshots, and if the graphics displayed by these static, miniscule representations of the game are colourful and well drawn the public responds by upping its expectations. The games companies, regardless of whether they are partly

responsible for the expectations of their customers, respond to what they feel people want from them. Only when people remember that design and playability are

the most important aspects of any game will the situation change. Until then, games houses will feel free to create beautiful looking games with little or no depth to them, because that's what the public demands. Hollywood has been phoning potential customers for years to

try out movie ideas on them before investing millions in actual production, resulting in bland but spectacular films such as Die Hard and Jarassic Park (heavy on dinosaurs, light on plot) and it can't be long before the spiralling costs of games production starts to force games companies to play even safer If we all want CD-ROM games with masses of graphics and

music (both time-consuming and expensive to produce), we'll have to accept that the games houses will be more and more cautious about which projects receive the thousands of pounds of development cash. Your own tastes and demands are, in large part, the key to

what the software houses will produce, so it's up to you.

Piracy sucks

I'll get straight to the point. Piracy - it sucks! I used to be the owner of a Mega Drive and Mega CD, but after paying £40 to £60 for a game I thought "sod that, I'll sell up and buy an Amiga". So I bought an A1200 and it's superb.

However, since buying it, I found that people are getting "cracked" games from bulletin boards. Why do they do it? Can't these people see that they are ruining the best computer in the world?

If I can't afford to buy a game I don't just think "oh, I'll just copy it". It would be easy to do so, but Amiga games are so much cheaper than console games anyway, and much better (especially the AGA ones).

I say to the Amiga-owning world please, please don't let the Amiga games scene die. Buy the game, don't copy it. Craig Bourman, Durham

Your comments would, I'm sure, be echoed by every software company in the world, and not a few sensible Amiga unwilling to take this step,

through the pages of AC?

Ezra Surf is our mailman,

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owners as well, However, so long as there are illegal copies selling for less or even freely available through cracking networks, there will always Ezra Surf's Postbag , Amiga Comput be people willing

Adlington Park, Macclestield SK10 4NP and eager to take advantage. We will never dampen the demand for pirated games without dramatic price cutting,

in the main manual, but Scion

has been around for a while and

Formerly known as Arjay Geneologist, Scion is now in v3, so if anyone out there can suggest

able, or if the author can contact us, we'll pass on the information. Failing this, try one of the PD houses who

G Bouden, Dumbarton

advertise in this magazine

Please don't enclose saes as Ezra just hasn't got enough paper to reply illy. He might also have to shorten your letters, so don't be offended if you end up getting the chop. and as the games world seems

games companies still see Amiga piracy as a bigger threat, perhaps because the Amiga press and the law-abiding sections of the Amiga community have made such a big issue of piracy over the

we must hope the long

arm of the law can be

used to good effect.

Don't think this

problem is restricted

to the Amiga,

The PC world is

as rife with piracy as

the Amiga one, but

for some reason the

The bitterest pill to swallow is that our reward for continually assessing the

threat from software thieves is to be treated as thieves ourselves. Why else should many games be hard drive installable on the PC but not on

the Amiga if not because the software companies think we are thieves and PC owners are 100 per cent honest?

Scion-ara? there should be an older WB1.3

Scion's author, Robbie Akin, neglected to include his address in the main program's About screen or

RISCy business

Having read of Commodore's plans to use RISC in their next generation Amigas, and perhaps even the PC Power chip from Motorola, I was wondering if we can look forward to a period of cross-machine compatibility. If so, it wouldn't be before time.

The Amiga and the Macintosh already use the same CPU, yet Mac emulators are still more expensive than Macs themselves once you've bought a hard drive and some extra RAM to dedicate to the Mac side. Now if everyone's taking a step forward, why can't they all take roughly the same one?

I was one of the early Amax users but have recently switched to Emplant, and I can recommend the emulation road to anyone. I know it isn't the panacea sometimes claimed for it, but running two computer from the same box makes life so much easier when, like me, you use a variety of computers at home and at work.

The Amiga has the advantage of cheap and highly efficient software, especially in graphics and 3D, while my Mac side runs expensive professional DTP and design packages I've borrowed from work. If I can put aside enough for an optical drive or a Syquest, I should be able to transfer work from home to office and back again with

supreme ease Don't the major manufacturers see the benefits? Why don't they open their eyes to the flexibility we the paying public are asking for?

The Power PC chip is indeed planned for use in the next range of Macs and has been mooted as a possible CPU in the A5000, but don't expect the PC world to take it on

Windows NT has been mentioned as a crossover point between the Pentium 586 and the A5000, but again this is only an early speculation fuelled by unguarded comments leaked from Commodore before the company's finances sank into the doldrums. In short, don't hold your breath.

AGA upgrade

I was reading in one of your magazines about a conversion to make the A500 into an A1200 for less than £150. I don't know which magazine it was, but I'm very interested.

Apparently, you fit a motherboard to the A500 which has all the 32-bit, AGA, and CPU chips to go with it, and I would be grateful if you could give me as much information as possible. A M Totadale, Middlesborough

The conversion you write of was offered by an American company called Copperhead Technologies and is a straight motherboard replacement where all that is saved of the original A500 is the power supply, plastic casing, keyboard, and floppy

We hear that Copperhead are a little difficult to contact by phone, so for further information, write to them at:

> Copperhead Technologies .. 104 Jay Street Schenectady

Video CD not good enough

Having read your CD32 supplement in II November issue, I must complain about Video CD comment on page four. The art cle states that movie buffs will be the first jump on Video CD.

How false and misleading! Any informed person has to know that the respecting film lover wouldn't even consider the Video CD option, not to mention about doning the amazing Laserdisc formal because Video CD's picture quality is on slightly superior to the ageing VHS. I mean, who would be stupid enough I invest his or her money on such a new see

tem just to watch movies with picture qual struggling to compete with a very old one! Oh, I forgot to mention the incredib VHS-beating Video CD features, such as III minutes on a disc and no record facility.

A Laserdisc player (getting cheaper an better every day) can offer tremendous pe ture and sound quality with full wide screen and Dolby Surround Pro Logic support combined with a huge availability of film operas, and music videos. This includes to very latest blockbusters, and not just out

It's all quite clear, I think, and the parallel between Laserdisc and Video CD was II say the least, unfortunate. I'm fully behind CD32, even the use of FMV for game (though Sega's new LaserEctive system on deliver much more), but when it comes it movie watching, Video CD is ridiculous. Alex Poledovris Ather

Well, so far the only people who've been stupid enough invest heavily in Video CII have been Polygram, Paramount, Warne Brothers, and just about ever other main player in the film and music businesses.

There's no guarantee, of course, the these poor misguided outsiders are well informed, but I think we can safely assume they won't hang back from make ing the most of their investment.

Laserdisc is now, and always has been, a fringe format and one which has always been an overpriced resort for movie snobs and fanatics. The film bull we mentioned in our supplement, almost to a person, will never even have seen Laserdisc in action, never mind know one of the tiny band of people who own one. Agreed, Video CD isn't of hugely bell

ter quality than VHS in absolute terms but it is still far better. The digital steres sound on a Video CD will never suffer from hiss, there will never be white line on screen, no problems with tracking and no need to fast forward or rewind. Remember that audio tape can sound

just about as good as a CD when first bought, but try the two after six months and hear the difference With the convergence between movie

music, and games industry settled on as Video CD, Laserdisc can have all the technical advantages it wants and will still be superseded.



Not surprising when you consider the extensive features at your fingertips, combined with user friendly simplicity, it was bound to be a winner! In a comprehensive Word Processor test, Amiga Format commented "There is little to fault Pen Pal, it deserves to do well" - quite a prediction it seems! Format have since said that it's "Still the best value for money..." If you're not a Pen Pal user yet, we hope you soon will be, because at just £49.95... the best just became better, even better value!

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hen the Small Computer Systems Interface (SCSI) became an industry stanfand, it was only a matter of time before the demands of a baying populace forced the magineers to produce a successor.

Not content with SCSI's speed, ability to

What the Tefal men came up with was breed of interface with maximum data transfer rates up to a theoretical ceiling of in the per second and access times which

Until now, SCSI-II was unavailable on the Amiga, but the release of DKB's A4091 at last fills the gap. Originally a project hatched by the Amiga in-house development team. the A4091 was farmed out to DKB when Commodore halted the project to concentrate on the pressing task of survival. Only

take your breath away.

Lap record

The A4091's speed is, of course, impressive but it is difficult at the moment to gauge exactly how fast the card will work as no good SCSI-II testing software could be found in time for the test

Most existing benchmarks fail to stretch the interface to its limits. and some even crash during the test procedure. As a result, any speed ratings we have are strictly provisional, but it doesn't take a minutely accurate test to show up the huge difference between this

For example, writing a 6.5Mb file to hard drive using the A4091 takes 14.5 seconds, and a staggering 78 seconds using the A4000's built-in IDE interface. This in itself is a slow result for the A4091, as the limited DiskPerf and DiskSpeed tests carried out

by putting everything into making and sell-

ing Amigas could Commodore keep affoot

Fitting in the 32-bit Zorro III slots found

in A3000 and A4000 machines, the card has

no accommodation for extra RAM of its

waiting for the A4091, DKB stepped in

set of rear mounted dip switches for setting

Different switch settings cater for inter-

New active termination technology is

also offered in the shape of a terminator

pack which the user can attach to the end of

the SCSI chain, thus avoiding the old fash-

ioned method of (in my case, anyway) flick-

ing little resistors across the room with a

screwdriver to the accompaniment of much

nal and external drive mountings, the new

fast bus mode, and the host ID number to

the board's various SCSI options

indicated a transfer speed well in excess of 8Mb per second Drive fragmentation and the vast differences between SCSI-II and IDE put the test in perspective, but A4000 owners should

Access times are similarly blistering, working out at around 4ms, though for some reason the read and directory scan results from our test programs did not accord with the evidence of our

Much slower test readings suggest that the software itself is at fault rather than the A4091, so if anyone out there can provide a reliable SCSI-II test program, stick it in the post.

own, but offers a SCSI-II through port and a profanity. As the terminator pack dangles worryingly from the end of the SCSI cable. I was a little worried about where it might end up, but the small PCB is almost entirely encased in glutinous insulating plastic, so there should be no chance of a disastrous Due to the lack of space in an A4000 Zorro

bay, a handy length of cable is supplied to enable the connection of a drive mounted in the second 3.5in floppy compartment, and with the dip switches it should be relatively easy for inexperienced users to add extra devices. The manual, though, could be a little more expansive on some points

Hard drives, and SCSI drives in particular. are a source of much confusion (even among many so-called experts) and the 40-odd page

osition manual doesn't help much.

SCSI II Hard Drive Controller

Pole

Stav on the Fast Trac

Stevie Kennedy takes A4091, the UK's first

Amiga SCSI-II hard drive card, for a test drive

EMPHASIS

There are good, clear instructions on fit ting the card and any accompanying hard drives, but with a little more on why things

work and more emphasis on trouble shooting would make things easier for nervous users (or most of us, in other words). One note for potential buyers of the A4091 is that many of the older A4000 machines contain an early version of the Buster chip

which, while not ruling out the use of SCSI-II. negates a great deal of the speed benefits Without an upgrade from Wang, entailing

the replacement of the motherboard if your Buster is surface mounted, transfer speed will be little more than 2Mb per second

This aside, I have no hesitation in recommending the A4091 to all those involved in productivity work, particularly direct to disk sampling, 24-bit graphics, and other storageintensive activities. Bung an A4091 in an Amiga used for such purposes and life will

never be the same again.





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Run those scripts

I have finally purchased an IDE 120Mb hard drive for my A1200 and it has just changed my life estantly. Now that everything Workbench 3.0 has to offer is so easily accessible, I'am literally devouring the manuals and now feel fairly confide m with the Workbench - especially the

I have challenged myself to write a hard disk install script so that I can easily drive without messing around dragging soms or using the Shell. I've tested the script and everything seems to work fine, "execute hdinstall" every time I want to

What I really need is to be able to attach an icon to the script so that it can be mm with just the click of a button, Could you please explain if this is possible or thing to do with it. Your help would be

Ah, if only everything was so simple. You're quite right when you mention IconX because it is an integral part of attaching an icon to a

IconX is present in the C directory of your hard drive and basically interprets he script commands much in the way that the Shell does

I suppose the first thing to do would be to design an icon for your hard drive installer script. Design the icon using IconEdit in the Tools drawer of your Workbench and make sure the Type menu has Project selected - a script file is described as a Project.

Save the icon in the same location and with the same name as the script file. Locate the icon, click it once and then select Information... from the Icons

A window will appear telling you

17

87-Feb-94 18:81:27

Workbench Screen

Confused? Perblexed? Steve White has answers to all your Amiga-related queries from script files to RAM types



everything about the script file.

However, trying to run it from the icon will have no effect until you give it a Default Tool. With the Information window back up, click in the Default Tool: window. Type in IconX, hit Return and then click on Save.

Now when you click on the icon you should find that your hard drive installer script has been successfully executed. You could then leave out the icon so that it appears on the main Workbench window. Easy, eh?

What a picture

All disks have a disk icon attached to them but is it possi ble to create one for the RAM disk? I recently designed my own disk

0 1091 PM 155 C5

icons and cringe when the horrid Commodore effort appears I have tried copying a disk icon across but it obviously is lost when I turn the machine off or warm boot Simon Johns, Manchester

It is possible to attach a disk icon to the RAM disk but you can't simply copy a disk icon into it. There is a sneakier way which will guarantee your RAM disk boots up with wride.

Design the icon and save it to the S directory as RAMIcon. Next, load up the User-Startup, also in the S directory. using Ed and type in:

copy >mil: sys:s/remicon to rem:disk.info Save the User-Startup and then reboot the Amiga. You should now have a RAM disk

Gag those drives

I am being driven mad! It's not a lack of RAM, it's not a lack of hard drive space, it's not even the lack of hard drive installer programs in computer games. No, this problem is serious - clicky drive

Is there any way I can stop my bloody disk drives from constantly clicking all the time? I regularly boot my A590 with blank disks in the drives just so the incessant clicking stops. The down side of this is that it incre ases my hard drive access time. I've tried

music, meditation, everything, to no avail. It doesn't matter what the cost, there must be something out there that will

Why fast RAM?

grams in there are too many pro-grams in chip RAM the Amiga begins to slow as the chips strug-gie to find space in which to per-form their calculations.

Imiga seriously I would strongly ecommend that you purchase ome fast RAM – 2Mb at the mini-

turn the clicking off - why does it happen

Peter Sibbs, Northampton

In my experience, every hard drive owner eventually falls foul of the dreaded clicky drive syndrome as you so perfectly put it, but there is a program out there and the good news is it won't cost you a bean

The program you're after is available from most reputable public domain howses for just the price of a disk and is called NClick. Unfortunately, I can't remember the programmer's name but it does work and brings sweet relief instantly. It not only disables DF0 but also DFL DF2 and DF3.

Arcade thrills!



millennium I have finally bought myself an Amiga computer and I'm very pleased with its performance. I am very keen to learn how to write computer games and hopefully market them. This was never a reality with the

TECHNICAL HELP

Archimedes but now I have the Amiga I feel confident that I could write a game of

Could you please explain what the best programming languages are and what software I would need in order to create

games?

Well Lance, it would seem to me that you haven't really dabbled with computer programming much in the past. Writing games to match those available now would take a great deal of time and patience.

Games programmers invariably use Assembly language to write their games. As the Amina is such a complex piece of hardware their are many facets to programming it that must be mastered.

Fortunately, there are a couple of excellent programming packages that would allow you to create very respectable games without a degree in mathematics. Europress Software are responsible for

the world-renouned Amos programming language. It is similar in many respects to Basic, but is far more powerful, But if it is really only sames that you want to create you would probably be better off getting hold of Acid Software's superb Blitz Rapic 2

Blitz 2 has been designed with the beginner in mind and offers complex graphics and sound handling which while powerful, won't have you tearing your hair out when it comes to learning the language.

You can contact Europress Software on 0625 859444 and Blitz Basic 2 is available



You got problems too? Then drop a line to

Amiga Computing Advice Service, Europa

House, Adlington Park, Macclesfield SK10 4NP and we'll move heaven and earth to help in these columns. But sorry, we cannot reply personally, so save those SAEs manuals and magazines but couldn't get

from Meridian at the humble price of £70. The best paint package you probably will have already got with your Amiga -Deluxe Paint, If not, contact Electronic Arts on 0753 549442.

Missing printer After saving long and hard my

two children purchased an Amiga 1200 which was fine until As a surprise I bought them an Epson LQ100 printer. We spent time reading the the printer to work. The Workbench 3.0 software was installed and everything went fine until we came to the point of selecting a printer driver from the printer Can you please help? I wrote to

Commodore several weeks ago but have had no reply as of yet. Mrs L Wright, Sheffield

When you say you installed Workbench 3.0 I presume that uou also own a hard drive. If the

software is installed correctly using the official Commodore installed program you should at least have the Generic driver in the Printer Tune

I would imagine that either the so were has not been correctly installed that there is some kind of error on your main Workbench disk. Lond and open the Workbench disk and take a look in the Printer drawer in

Inside you should find a printer drive called Generic. Drag it into the Printer drawer found inside the Dem drawer on your hard drive. When we



next load up the printer prefs General should be available in the Printer Tupes

mindom If you can't find the Generic driver suggest you get yourself a replacement

set of Workbench disks. Explain to the dealer from who you bought the computer about the problem and see you can have a new set of disks. If this doesn't work you will have to call

Shell short-cuts

After tampering with the Shell and finally getting to grips with it I would like to add some hot key definitions so that I can speed up my typing of At present I am personalising my Workbench and have installed the excellent

MagicWB PD program. Now all that is left is to personalise the Shell. I understand that creating hot keys is possible in the Amiga but I can't fathom out exactly how it is done. David Holden, Southampton

Danger! MagicWB may look very attractive but we installed it on the Amigas here at Amiga Computing and it caused quite a few problems. My advice would be to delete it immediately and personalise the icons vourself - a far more satisfying and safe option - rather than risking your Amiga's health. Anyway, on to your point about personalising your Shell. When you load the

Shell up it reads a file in your S directory called Shell-Startup. This text file contains information about hot keys, called Alias in Amiga DOS, and various other attributes of the Shell window. Take a look at by typing:

Let's say that you wanted the Shell to print "hello" when you typed "hello". You would need to type in:

and then save it by pressing Esc then x and then Return. All you need to do is

attach a command to the alias.

The next time you load up the Shell, type in "hello" and see what happens The Alias command is more powerful than explained here but this should keep you going for the moment.



from the Shell itself.



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INTERVIEW .

uch of what goes on the computer industry warrants a closer look made and not kept, fickle attitudes. towards social issues and many other areas are ripe for investigation Each month, we'll be bringing you

concise inferviews with the wheelers and dealers of the industry for you to make up your own mind on how you. as a customer, are being treated.

The series kicks off with David Pleasance, MD of Commodore (UK). speaking about why their new wunderkind is not receiving the good response they expected from some of

David, what can you say to the buyers of the CD32 who feel let down and disappointed with the lack of origi nal software that was promised to them by the end of 93? Straight port-overs from A500 games with extra sound and colours are hardly state-of-the-art 32 bit CD technology gaming we were led to expect soon after the launch...

That's a fairly simple question answer - to manufacture and produce a standard entertainment product, by that I mean a floppy disk or carmidge-based product, takes

approximately nine months. To produce a CD-based product using all the technolsey and facilities that are available on highly-specified CD-based machines takes about 18 months. The product was only released to two [compunies] because we had a very strong requirement to keep the

The product was given to a andful of developers three to the realities of it are that there are a large number of very good products under development but the timescale limit takes longer than the machine's been on the market. So, in essence, the answer is

How do you feel about the software houses that made promises and subsequently missed their deadlines? Do you, like the consumer, feel

Yes, there are certainly a numher of publishing companies serbally that they were workng on various projects and I mink in all honesty that Commodore's financial posi-



tion left these people a little bit scared. So, while they were telling us on the one hand that they were doing things, they put themselves on hold to see what was going to happen to Commodore before they committed their resources. I can't really blame them but at the end of the day, I'm obviously not happy that we were given lots of commitments which were not fulfilled. I can honestly say now

that I don't know of any company that's in that position now - they're putting their urces into it. In fact, the levels of sales at first, even for standard ports as you rightly call them, have been quite staggering so far as I'm aware. I don't know of any major company that is not committed to producing on its own...



While your recent double page spreads quoting leading games makers confirming their continuing support is encouraging, when are we actually going to see CD32-specific games other Liberation?

Microcosm is due out at any time and that is pretty damn good. Rise of the Robots is due out, they're telling me, at the beginning of March and that's

So, it's very imminent - I mean, we're in early February now but my belief is the best titles will come out probably in the pre-Christmas period this year because there really is 12 months' development in these products and they can't be done any faster... so much to use, you know.

Industry sources have suggested that there are maybe as little as 50,000 CD32 units in British homes at present. Is this figure worrying for the future of the CD32 and therefore for Commodore as a whole?

We have not achieved the level of sales that we would've liked and I think that there are a number of reasons for that. Certainly, the lack of software of any description was a definite negative in terms of people committing to buy the machine and I can't blame

Also, the reality of it is that the console market is considerably down on... everybody's estimates. I would suggest to you that

INTERVIEW

Sega and Nintendo are at least 40 per cent down on their estimates. We believe that we still have made the lion's share of CDbased hardware sales but obviously, the

numbers are down on what we predicted. However, what I can say confidently is that there is no question in my mind, and I've been at Commodore for ten years, that in the [time] the CD32 has been released, we have had a better sales penetration than any other previous product, including the Commodore 64 and the Amiga 500.

I think it bodes very well - my belief is that the CD32 will most definitely be the product for this Christmas, 1994.

To truly make the CD32 a success, America is the market to be conquered. Apparently, the release Stateside was a low profile affair which again leads to the question - are Commodore doing enough?

Well, it's no secret that Commodore don't have huge resources at this moment in the States during the CES attended with over 200 jourreceived - and I'm not just saying that because I like making all positive notes, I'm abso-

lutely genuine about that, I've been very critical about what the Stateside people have done in the past but this particular launch went very well and I think the reason why it went down so well is because there is such a down feeling and an anticlimax regarding 3DO - everybody though it was going to be wonderful.

The 3DO shipment figures I've been told are 32,000 units shipped to retailers and less than 10,000 have sold through since September. The American journalists are very disappointed and believe the 3DO is a disaster and are really looking for some-

thing to fill its void

With the launch, we've shown what the CD32 can do and what the potential is. They are very excited about it and I within the last week or two and the next two to three weeks, a great deal of

The product isn't shipping until March - we are not in a position to do a massive campaign. I mean it costs millions and millions of dollars to do that but our plan is to launch in a very similar way to that which Atari have done with the Jaguar; to launch in a couple of specific areas and

promote within those areas, and I think that the potential is very large. We actually genuinely believe that we can do somewhere between 200 and 300,000 units in a 12-month period from the date of launch in the States.

In the future, how do you reckon your chances are against the 3DO, Jaguar, Saturn and other highspec machines that are coming to our shores at some stage this

> I think we have a big advantage in terms of 3DO. Saturn and the Nintendo alliance, and that is we have a product that already exists. You know, when Saturn hits the States or Europe, it's going

advocate

realises. I'm not so sure about the end user, but it's not a 64-bit product.

The other thing about the laguar is that obviously at the moment it's a cartridgebased system and the CD doesn't

My information is, and I don't think that

you'll disagree. that the majority of software publishers are desperately trying to get out of cartridge manufacturing... they're not really keen to commit writing for it and at the

graphics, but they were showing them a monitor that cost \$5,000 There's no way on God's earth than kid at home is going to see that on a m his home without paying \$5,000 for the

monitor to give that resolution. To me think that's a scam, never mind who anyone thinks. So in terms of our technical specifical tion, the projects we have under design opment can certainly keep ahead of our

competition. The CD32 Mk II is in development at present. Can you tell me about the tech nological advancements from the present model and when it is going to be

I can't and I won't because the worse thing in the world is publishing vapour

released?

ware which stops people buying my product and can't afford that - I have have people continual buying my product. So.

> Should customers be com corned that their recent purchase could become obsolete by the end of the year?

No it'll never become obse lete, absolutely no way at all. The one message that we have to get through that technology cannot star still.

For our readers, do you have any promises you would like to make comcerning the future of the CD32 and the Amiga range?

Concerning the CD31 there are a number of very high profile arcade companies currently com mitted to writing for

the machine

end of the day, we

all know it's

that drives the

of those things of

course, we have a

number of prod-

ucts under devel-

opment which I

can absolutely

Having said all

the software Finally, is it true that you once came second in an Opportunity Knocks-style show in Australia for playing the flamenco guitar? [Short laugh] Yeah, I actually did in a national contest, yeah... many years

Thank you for your time.

. If you have any opinions, views or other information on what you have read an would like to see covered, then please drop u a line at The Devil's Advocate at the usua address, the intention being to print you replies. We look forward to hearing from DEDGY ...



to be much later this year if it hits this year at all; I suspect it will.

They are going through the same problems that we are going through in terms of product written for it so I believe that we have a headstart - we launched in October... to hit the

> My belief is that having this year headstart is definitely going to be advantageous to us - there is nothing that the Saturn product spec delivers that is exceptional in regard to

> our specification. laguar in terms of its specification is somewhat of a scam - it's not a 64-bit product as everyone who looks at it

"The Jaguar, in terms of its specification, is

somewhat of a scam - it's not a 64-bit product...

> compete in terms of specification with any product that we know of or can potentially be promoted. Listen, I'll give you a very good example, this project from Nintendo with Silicon Graphics. They were showing what the potential will be at the CES show in Las Vegas straight from a \$40,000 machine with these fantastic

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hanks to the ever growing number of hard disk users, the backup business has become one of major growth areas when it comes to wous software. As a result, Central Coast between have enjoyed something of a

However, improved sales have a tenamey to attract the opposition, which in the of software security has meant a much reproved revision to the Ami-Back range of

wk-up and utility programs similar approach to the subject with a

sedicated back-up package in the form of amerback and Ami-back alongside sepaar disk management packages entitled Surterback tools and Ami-back tools However after years as the dominant

in disk management, Central Coast recently found themselves playing up as Ami-back launched their latest mdate with the addition of back-up alleduling - something which the new meterback couldn't match.

This unpleasant surprise obviously infumend the boys and girls at Central Coast. excially considering they had only just sched their latest version of Ouarterback.



Set up a reminder and launch some software whenever you want



Listing assigns and selective back-ups are all a part of the new nackons

As a consequence they've now retaliated with the release of Quarterback v6 only months after its predecessor. However, this time scheduling is high on the agenda with a standalone utility appended to the basic Ouarterback package. To be fair the authors have taken the

opportunity to do a little tidving-up as well as adding the aforementioned scheduler. At the forefront of the new enhancements comes much improved data compression which can write to floppies at normal



tapes. Tape support has also been improved to cater for more modern tape streamers which offer hardware compres

sion, fast tape advance and quick eraser

On top of that come several new ARexx macro commands - some of which have been designed specifically for the scheduler, while many of the existing macros have been updated and expanded to further improve Quarterback's automated operations. However useful, much of the above is basically icing, while the real appeal has to be the program's impressive

Words, pictures

Paul Austin peruses the ultimate in Amiga updates including the all-new ADPro2.5. Wordworth 3 and the latest revision of Quarterback

and disk back-ups

ADPro upgrade what the company terms "the most significant upgrade in

history", ASDG's Art Department Professional - alias Pro - now offers much improved display board support, 100 pre-written ARexx programs, direct support for the Primera dye sublimation printer, new file formats and mentions, plus an entirely new look for the interface itself. The program also offers a choice of several completely

guide-compliant user interfaces. According to compresident Mr Perry Kivolowitz: "A new and thoroughly modern user interface was our most requested improve-We surveyed our customers and found that some a list-oriented graphical user interface - GUI - for while others preferred a button oriented GUI for of-use. We implemented both and allowed them to be mixed configurably."

ADPro's GUI now runs on many third-party display such as the Picasso, using RTG - ReTargetable michics - technology. ADPro can now render images in a andow on the same screen as its user interface, bringing levels of wysiwyg performance to the product. Other



newly supported third-party hardware includes DPS PAR. EGS. Retina Z-III and Retina, and the Video Toaster Image format support has been improved with the addition of six new file formats in ADPro and three in the

optional Professional Conversion Pack. In the case of ADPro, support has been added for Commodore's CDXL animation format. Digital Broadcaster JStream files, FLC and FLI animations, ICO files and direct

The PCP has grown to support files in the SGI. Alias. and Wavefront, both the RLA and RLB formats. Owners of the PCP should note that, as in the past, their PCP modules will be upgraded as part of the ADPro upgrade

SUBLIMATION ADPro 2.5 directly supports the Fargo Primera printer in

its dye sublimation mode - its thermal transfer mode was already supported by ADPro's PrefPrinter saver. "The Primera is a breakthrough due to its low price," said Sales Manager Gina Cemiglia

"We've adapted our state-of-the-art printer support to drive the Primera in dye-sub' mode, including the ability to

The new package also includes more than 100 pre-writ ten ARexx programs, many of which are interactively cus tomisable by the user. Used in conjunction with the latest version of FRED, these ARexx programs can be combined

UPDATES

new scheduler. Obviously the scheduler's primary concern is unattended back-ups via Quarterback but thanks to the generosities of hand to much more besides.

In fact the program can be used start any program or ARexx script at a particular time or according to a predefined regular - or even irregular - schedule. As if that wasn't enough, it can also provide on-screen reminders usine the same process, Instead of adding a program or script you can type in a message which will pop-up on the year, month, day and time of your choice.

one of the aforementioned events is simplicity itself - you simply boot the program, add a new event, define the start time and whether it should be yearly, monthly, or daily. Basically any perceivably combination of time and date is possible on either a repetitive or single-event basis.

NEW EVENT

In order to activate the process you simply add the new event - with an appropriate title - and save it out. Basically that's it. Assuming you do the sensible thing and add the program to your Workbench-startup drawer with the appropriate tool types - it will bootup every time you start the machine, depositing an Appleon on the Workbench ready to

receive new events and activate existing ones. Essentially that's about it. Not exactly a major revision but for any registered users out their it's definitely worth the extra investment. And for any would-be new investors the latest revisions certainly go a long way to reaffirming Quarterback's posilong way to reatmining tion as the leading light in soft-

> Upgrade price: £31.95 tion co 081-543 3500

The third word

Word processing has to be one of the hardest fought markets on the Amiga. with constant revisions and updates prompting more of the same from the hard pressed opposition.

Over the last few years Digita have - on the whole - managed to retain the high ground courtesy of Wordworth, a package which in its day set new standards for Amiga word processing

However in recent months the tide has turned with the arrival of Final Writer, a package which made a very serious challenge for the title of the Amiga's premier word processor. As a result Digita have now bounced back with the third revision of Wordworth.

Obviously Digita had to pull something special out of the bag, and with the arrival of Auto Correct they could have done exactly that. Thanks to this new feature, minor typing errors are automatically corrected for you without

the assistance of the usual spell check. For example if you inadvertently typed "teh" instead of "the", the error would be automatically spotted and replaced with the correct spelling as





Eradicate all silly mistakes thanks to Auto Correction

soon as you hit the spacebar. Better still, the process is completely configurable, so you're free to add your own definitions to the list. For example by simply adding the letters AC and the appropriate definition the software would replace it with Amiga Computing every time that letter combination appeared.

Customising in general has seen a lot of attention with another example being the arrival of new user-definable interface which enables you to

specify the typeface, the gadget sizes and group titles. It's even possible to edit the pop-up requesters if

For pro users special attention has been given to file sharing between

and printing here all been long

Macintosh, Microsoft Windows and DOS-based applications. Hard copy presentation has also been enhanced via the Digita Print Manager which now ships with Wordworth-specific replacement printer drivers for the HP Deskiel and HP Laserjet range, as well as Canon's BJ printers

To get the best from the new drivers, Digita have included the reference library of Agfa Compugraphic fonts, which formerly sold separately for £69.95, and which provides a selection of 50 fonts - all of which are

now offered as a freehie honus with the new Wordworth For any new investors, Wordworth3. will set you back a penny under £150,

while upgraders can cash in on the new software for just £49.99. However if you've got any other word processor and fancy a trade-in Digita will take your old package plus

£59.99 in exchange for their latest For more information contact Digital International on 0395 270273.



motion special effects automatically.

in an infinite number of ways, producing a huge array of full In addition. ADPro now allows users to define their own ADPro's configurable user interface. Other improvements and additions have been made such as the ability to perform alpha channel blending with most file formats, not just those that support their own alpha channel. Composites can now be performed over a range of colours permitting more flexible chroma keying

New operators include Histogram Equalization and a brush-based Pattern operator. A new program called CineMorph - not to be confused with the older GVP product of the same name - is included and can convert streams of images between 24 frame per second film-style and 60 field per second video-style timebases.

DOCUMENTATION The program also benefits from improved documentation

in the form of a new manual that includes nine tutorials. many more pictures and diagrams, and a much improved reomanised - and its index expanded.

ADPro 2.5's price will remain unchanged at \$299, but existing owners can upgrade for \$45 plus shipping and can, MasterCard, or American Express. For more information,



It's been a long time coming, but ADPro has at last given up the loves look

contact Ms Gina Cerniglia at ASDG Incorporated, 9 Stewart Street, Madison WI 53713 or call 0101 608 2 6585. To upgrade direct contact ASDG on: 0101 608 2



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WaveTools is able to sample data at a variety of sampling rate as low as 19KHz as well as the standard rates of 44.1KHz and waveform editor for cut, copy, paste and mix operations on selected portions of audio waveforms. Edits can be tagged as destructive or non-destructive. WaveTools also maintains an internal time code in the format of SMPTE 24, 25 and 30 frames per second to ensure perfect synchronisation of your audio file.

The WAVETOOLS RTX (Real Time Effects) Module adds an window for making a video work print with time code stamped

WAVETOOLS RTX Module (Shins February) WAVETOOLS RTX (both boards)

UPPER DISK TOOLS

This amazing new program offers a great new concept in the recovery of deleted or lost files from either corrupt or normal disks. Files are recovered from disk through a new virtual AmigaDOS device called REC: that is mounted by recovery, Each

Once the user scans any of these directories, the program

The brilliance of this concept is that users can retrieve the file

Everything is so transparent that it is even possible to read or execute a file from the REC; device!

UPPER DISK TOOLS is supplied with a full user manual and is

UPPER DISK TOOLS cost just £19.95

PICASSO II

**Recognize the Graphics (RTG) is the future of Amiga graphics display schoology. True RTG means that a graphics device will not be sufficed by the memory limitations of the host system's Chip memory, or by the speed of the custom chips. A true RTG device does not to use Chip RAM at all, and can run exclusively in Fast RAM if

Picasso II RTG Emulator integrates seamlessly into the Amiga perating system to give the most reliable emulation available. The resolutions provided by the Picasso II appear in all your applicamenMode requester. For any program that allows you to choose a screen mode, you would simply choose a Picasso II screen mode as an alternative (such as Picasso:1280 x 1(24), You will not to wait for any custom programmed versions of any program to immediately take advantage of the new modes available to

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The Picasso II is designed to take full advantage of the host comput-Interest Picasso II mode screens is very fast and switching between casso II mode screens and native Amiga screens is nearly instan-anous (as fast as your monitor can re-sync). Because the Picasso RTG board does not use Chip RAM, your Amiga will be less likely to suffer from bus contention problems normally associated with tuning high resolution screens and heavy DMA activity.

The Picasso, II RTG emulator has been designed so that it uses no Chip RAM. All available screen modes on the Picasso II use only Fast RAM. This sophisticated design means that even a 1Mb Picasso II loard can support as many high resolution 256 colour screens as all fit in the Fast RAM of your system.

The Picasso II comes with several screen modes and resolution some instances, where those modes may not be sufficient, you can requencies and resolution capabilities.Picasso II comes with lamActor (animation program), IFF, GIF, JPEG and MPEG Viewers and drivers for ADPro, ImageFX, ImageMaster and Real3D. A

Great New Prices - TVPaint Junior Included! PICASSO II 1 MB + TV PAINT Jnr.
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EMPIANT

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FEATURE

t's quite amazing to see how much the the very early days of the Sinclain trum and Commodore 64. How times have changed since those exciting days when quality was all-important and the sales of games meant little against the entertainment value they offered.

Nowadays the purchaser matters little, entertainment matters less and the incredibly wealthy software industry runs with a narrow criteria based on money and selfpromotion, and all at the expense of what used to be the singularly most important element in the industry - the games player.

As Amiga owners you may think that you have been well supported by the software publishers, venting your anger and frustrations at Commodore's often perplexing marketing strategy - but you'd be

Commodore have made mistakes, but theirs are a far cry from the often cut-throat, uncarine attitudes that exist within the software industry. What I am about to say is not intended to shock, but to inform the reader of the unprofessional attitudes that often exist behind the glossy exterior that is the software publisher.

As the popularity of the Amiga home computer grew, so did the software industry as a whole. What were once family businesses very rapidly evolved into corporate giants and with this evolution came the inevitable distance between publisher and

purchaser. The once all-important guy at the end of the line had now been forgotten amid contracts worth millions and an industry which often no longer cared about quality, sacrificing it for quantity

Of all the various tribes of home computer and console owners, it is the Amiga fraternity who have suffered the most. The biggest bone of contention between Amiga owners and software publishers is piracy something most people know exists but know little about

As far as software publishers are concerned, piracy is to blame for every shortfall with Amiga software - poor packaging, bugs, lack of after-sales support and non

hard disk installable software are all cited. And now piracy has become the excuse used by software publishers to avoid what is considered hassle from purchasers - the same purchasers who were and still are



First sight of an FPU and the golfer in MicroProse Golf does a runner. And where are those data disks?

responsible for the growth of the computer industry, especially Amiga owners!

Only by uncovering the many ways in which Amiga owners have been shortchanged can we gain a good impression of the real truth behind the threat of piracy.

Probably one of the most successful companies who have declined to properly support Amiga owners in the past are Ocean Software. Famous for their unimaginative sold millions to the younger age group arguably due to their titles and subject matters. Ocean's F-29 Retaliator and Epic are two of the most bugged games around and this from one of the biggest software publishers in the world!

HELD BACK

And when MirrorSoft were in business a few years back, they deliberately held back their Turtles game from computer magazines because they knew full well it would be slated.

It is this kind of skulduggery that has helped shape the software industry we know today. But the problems don't end when a same has been purchased.

Bugged software rarely causes an uproar partly due to the appeasing nature of the British public - but it is becoming more and

It is true to say that nearly all software houses have some kind of bug-testing team and to all intents and purposes they do their best to ensure that software hits the shelves "bug free". Unfortunately due to



self-imposed deadlines, and sales and marketing teams who care little for quality, the quantity of software that is actually released bugged is phenomenal.

The sales and marketing team will invariably admit the existence of these bugs in their products, although they will skate over the problem whenever they can, putting it down to (self-imposed) deadlines and the fact that you can never totally free a game from bugs.

OK, that's a fairly valid point, but where are the numerous bug patches that grace the PC? A tremendous number of bug patches are available for this machine on bulletin boards, in the public domain and from the actual companies concerned.

I was disgusted with the

contemptuous attitude of some publishers towards their buvers

In all my time in the computer entertain ment industry I have never seen a patch in the Amiga- if there are any they must be few and far between! MicroProse have had problems with







Reach for the Skies. You can even play on RAF and Luftwaff



bullets but It Is in fact a bug

burs removed. This is certainly a first, and

congratulations must go out to DI for taking If software publishers refuse to release

bug patches there is an alternative - an inde-

pendent committee employing a specialised team of testers set up especially to monitor software and help the software publishers to clean up their products. Anyone who ignores the advice of the committee would have a sticker slapped on

their software informing the public that it has not been properly tested and that it may con-

Retailers would undoubtedly refuse to take unchecked software which would force software publishers to spend more time making sure their products were working

Unfortunately, it is not just bugged soft-

ware that causes problems. Ocean recently released their movie conversion of Steven

Spielberg's Jurassic Park on the A1200 and

although the program came on four disks it was not hard disk installable (something

they have rectified with the release of Ryder

ABYSMAL

The loading time is abysmal from floppy and you spend more time waiting for game sections to load than playing the bloody

thing - as far as hard disk installable software goes, the Amiga has been left out in the

Software publishers justify their lack of support for Amiga hard disk owners by insisting that piracy is too big a problem and that few Amiga owners actually own hard

Well, I for one feel deeply put out when I

What's wrong with manual or codewheel

protection? Sure, it won't stop the big-time

hacker, but then you never will. What it will

do is reduce the chances of the small-time

otherwise, PC piracy is becoming just as

much of a problem as Amiga piracy, yet all

PC games are installable and very few have

any form of copy protection. In 1993 more

but not at the expense of law-abiding Amiga

owners who are paying £25 to £35 a game

Action should be taken to reduce piracy

than 700,000 CD games were copied!

Although software publishers will tell you

pirate copying software and distributing it.

have to suffer a four-disk floppy swap just

because software publishers can't or won't

protect their games adequately.

Cup).

Is your home computer being pushed out into the cold by decaying standards? Steve White investigates the decline in software quality

system

bugs. B17 Flying Fortress, for example, does they didn't appear particularly concerned not run correctly on either the A600 or and nothing more was said. A1200, nor does it fully utilise the enhanced performance of what are considered default

Knights of the Sky suffers from a random bug that causes the screen to update approx imately one frame for every one second realtime, and just at the crucial moments in the

If you play MicroProse Golf with an FPU (floating point unit) or certain fast RAM expansions in your Amiga, the golfer sprite flashes on and off.

ATTITUDE

Indeed, I was personally so disgusted with the contemptuous attitude of some software publishers towards their loval buyers that I decided to help Rowan Software de-bug their Reach for the Skies game for

On average, I reported twice the number of bugs that Virgin's team spotted. After my second report I did not receive later versions and subsequently the game was released bugs included, some of which I had even informed them about. There you go, a prime example of the ignorance of software

Combat Air Patrol (CAP) from Liverpoolbased Psygnosis was indeed bugged, again at the most crucial moments in the game. Just who is testing this software? When I challenged Psygnosis about the problem

Integration can produce excellent and com-

good and play well and which have sold deservedly well - you need only read the manuals to realise that you're dealing with a company who care about their user base. Digital Integration have also announced

that they are planning to release an enhanced version of Tornado, all previous

There are others that I could mention and they know who they are. If Digital

plete games why can't other software companies? Digital Integration, famous for their flight simulations, have released only two within the last three years - F16 Combat Both are exceptional games that look



gome in the w Jurassic Park wood

After-sale lessons

abbie Durrant is public relation anager at Digital Integration. boke to her about Tornado, an ter-sale support for purchasers. "If there are any Tornado Amig wners having problems or they

Amiga goes. Debbie explains:
"We are definitely releasing a ded cated A1200 version of Tornado cheduled for release mid to en

cceduled for release mid to end fastch 94. This version will have 256 colours and PC standard graphics – and hard drive mandatory." Registered users will be able to pgrade from the A500 version of crando to the dedicated version for topomical chairs.

nominal charge.
Digital integration are also devel
sping the Operation Desert Storn
data disk but unfortunately it wil
only be compatible with the dedi
cated A1200 version. This is sched

This kind of after-sales support is lairly rare but hopefully other soft ware publishers will take notice and change their rather blase attitudes.

and expect bug-free, hard disk installable

And to insist that there are few hard disk owners is totally untrue - and with the advent of the A1200 there are more hard disk users now than ever before! In a recent survey in Amina Computing, 40 per cent of readers claimed they owned hard drives.

It's about time software publishers stopped treating us Amiga owners like do other than play arcade games and then

Most of us have second disk drives, yet some companies still support only one drive with two disk games. Many own hard drives yet most Amiga software is not hard

drive installable. And all of us want to be entertained with high quality, impressive software, but still games are released that are bugged and lacking in originality. If the software publishers have a problem with piracy, then they should sort it out, instead of making

the rest of us loval Amiea owners suffer. We are all responsible for the growth of this industry in some form or another and the sooner software publishers realise this the better. They are only damaging their own image and chances of success in the

So, guilty parties, please take note and change your attitudes or expect to see more articles of this kind in future - something none of us want to happen.

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VIISA VIOCO TITUES

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brokes then this is to 3040 TETRIS (ASA)

have failed to notice that, even though it boasts an 020 processor. speed increase often isn't much better man that of a 69000-based Amiga Working in AGA mode can prove a achtmare, especially with a measly 2Mb of

Dip RAM, raped, plundered and pillaged be the machine itself and any programs that are running at the time. The obvious upgrade is a Fast RAM expansion to relieve the strain on the chips.

nyone who owns an A1200 can't

but you're still left with an Amiga that drags in feet and doubles over at the mere sniff of a complex 3D project, animation or game. Fortunately, GVP have the hardware that will make even an A4000 owner turn green with envy - the A1230 Turbo+ accelerator

The board offers 4Mb of Fast RAM. apgradable to 32Mb using 32-bit Simm mips, an 030 processor running at 50MHz with an optional FPU 68882 (capable of performing decimal arithmetic calculations many times faster than the main processor), a battery-backed clock and an expansion connector for modular additions to the

On first inspection the unit appears fairly robust, complemented by a manual that is both clear and concise with instructions written with the novice in mind. An improved trapdoor cover is also supplied. remoulded in order to compensate for the

size and shape of the A1230. The most arduous task in fitting the

board is getting it into the bloody expansion



rendered using a base A1200 running the indord Imagine program and the A1200 and with the A1230 Turbo+ and running the IPU version of imagine. The differences in rendering time were substantial. The standard muchine took 14m 39s while the accelerated machine took only 2m 35s

l've

slot beneath the A1200. This is not a fault of GVP but is instead due to poor design by Commodore Once the A1230 is in place and snugly

connected to the expansion bus the driver software must be installed. As with all recent GVP products the installer disk is neatly designed and simple to use. There are several programs on the disk which allow you to test the Fast RAM and view information about the board itself. Certainly the most important part of the software is the Kickstart ROM remapping

program which resides in the WBStartup drawer. When the software is installed the A1200 Kickstart is allocated an area of 32-bit Fast RAM, normally 512k which it can REMAPPING

As the A1230's memory can be accessed

far quicker than the ROM chips in the A1200 this greatly speeds the Workbench up and the accessing of programs. However, the board must have at least 4Mb of Fast RAM in order for the ROM remapping to succeed. With the board fitted and software cor-

instantly noticeable and quite shocking! Using a reliable benchtest program running the infamous Beachball test in which a beach ball is rendered on the screen, the accelerated A1200 was 65 times faster than a standard A1200 with no Fast RAM

Other tests produced similar results with the accelerated A1200 far out-pacing the HARDWARE

wer A1200 owners can turbo-charge their

Amigas with the A1230 Turbo+, the most advanced accelerator and RAM expansion to date, says Steve White standard machine and simply wiping the the tracks at hair-raising speed The A1230

floor with the A500 Plus. However, benchtests are one thing - the

true test comes with applications software, require extensive rendering times and rely heavily on processor power The tests were performed using Imagine

and Imagine FP, the latter utilises the FPU in the A1230. A complex 3D image was rendered using both programs and the time differences noted. Although the standard Imagine program performed relatively well, rendering the image in 14m 39s, the FPU version made swift work of the image rendering it in an amazing 2m 35s.

Apart from testing out the customary graphical rendering times the A1230 was also tested with a variety of games, mainly

Tornado and Formula 1 Grand Prix. Tornado, which is virtually impossible to play on a bog-standard A1200 performed admirably under the A1230. Even on maximum graphic settings it was fast and smooth in every department. The same was true of F1GP with the cars hurtling around

Turbo+ is a fairly expensive piece of equipment but the increase in speed is worth every penny. As a standalone machine, the A1200 is fairly basic and somewhat lacking when it comes to rendering complex 3D shapes and running 3D intensive games.

into a speed demon with unparalleled performance which even the A4000 has trouble matching. Once installed it will change your life forever and make the in

> duct: A1230 Turbo one: 081-309 1111

and IMath which willise the 030 By looking at the resultant graphs yo A1200 with no Fast RAM. The

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he whole thrust of the Amiga video market has always been to cut the huge price tags out computer video work, and to this end stream of cheap and cheerful digitisers, plocks, and 24-bit cards has flowed the manufacturers into the ger hands of thousands of Amiga

There have always been high-end imga add-ons aimed at the semi-profesimal and professional markets, though, and G2 Systems have been responsible for

Starting with the successful deoCenter range of high quality genks, keyers, and faders, G2 have punded their range of products to cover a about everything the video user might about everything the video user might about everything the video user might will be successful about everything the video user might about everything the video user might about the video user might about the video user will be video user with the video user might also used to be video user the video user will be video user with the video user might also user the video user will be video user with the video user might be video user with the video user might be video user with the video user will be video user will be video user with the the MasterPiece 24-bit card was discontinued, and G2's response is Image Engine.

Fitting in any Zorro slot, Image Engine is a 32-bit graphics cand with on-board agaphics processor, Mb WRAM to enable double butfering and the use of an 8-bit aplac channel, and an optional 840B RAM. The on-board processor is theTexas Instruments 34020, a dedicated graphics chip which can run at high speed, but which requires software to be specially coded to take advantage of it.

PROFESSIONAL

Other system requirements soon put Image Engine well beyond the enthusiast market and into the professional domain. The board's only video input is in the form of a component RGB port, so a video splitter is required for any work with com-

posite or Y/C, and as Image Engine is designed with an external sync in mind, a time base corrector is essential when using domestic

> Our test was carried out with a Panasonic FS90 S-VHS video recorder, one of the better household units, and though the card's realtime digitiser would grab "on the fly", the sync signal from the VCR was not to Image.

Engine's liking. Using the Panasonic's perfect pause for grabbing reduced sync levels to the point where the picture started to roll, and only with the correcting influence of a TBC was Image Engine comfortable with the input.

consortation when the deal minimum set-up includes £800 worth of TBC or a sync generator, and £255 worth of RGB splitter (C2 supply the Sony YR-1000 for this purpose), bringing the equipment budget to over £3,000 and putting the card well out of the enthusiate's price bracket. So what professional benefits did we get for our

Before using a TBC, grab quality from Image Engine was, if anything, poorer than the £300 VLab card and certainly no better than Rombo's Vidi Amiga 24. Once the system settled down, however, and a higher quality signal was being used, Image Engine started to shine.

Real-time grabs in crisp detail without

d d d d

Variable rub through results in flexible mixes between images

appreciable interlace flicker started to roll onto the hard drive for use with the Imagica software, and before long I was able to start working in a profession facilities.

Imagicia's ease of use helps the process along quite nicely, and as paint packages go il is a smooth performer, though not quite up to the standards of TVPaint or TVPaint Ir. Designed for the professional user, Imagica shamelessly apes the way in which Quantles Painthox software operates, with all menus available from a popdown panel.

down panel.

The package is divided into several parts, each concentrating on an area such as Draw, Brush, Video, and Stencil, and without using the manual it is easy enough to get to grips with most functions.

One surprising observation was that despite the 8Mb RAM and 3Mb VRAM



ive video review is valiable ethind all magica's

The video V6

Image Engine brings professional features and a professional price tag to Amiga video.

Stevie Kennedy hits the gas

coupled to the TI34020, Imagica couldn't be described as the world's fastest paint package, and compares poorly in some respects with EGS Paint on the Spectrum

Most operations are smooth enough, but when flood fills or area filters are brought into play - never mind the airbrush feature - speed suffers badly. To compensate for this, brush handling is very good. Scaling and rotation in particular are easy and quick, and the skew feature is also pleasingly fast.

Disappointingly, soft edged brushes aren't directly supported as in TV Paint, though a sort of soft edging can be achieved through the stencil tool. This latter is probably the best and most fully featured tool Imagica can boast, and lends the videographer a fair degree of flexibility.

Stencils can be set up using solid colours in the usual fashion, but with the use of three tolerance settings a great many more effects can be pressed into service. Sliders on the stencil window can be used to select chrominance (colour), luminance (brightness), or difference as a percentage of the area being masked so that the user can soft edge the stencil itself.

KEYER

This won't work with the standard setup, but when a linear keyer is used in combination with Image Engine, the stencil feature works with the alpha channel to provide 256 layers of bleed for on-screen graphics of all kinds.

With the full kit it is possible to produce finished video sequences to match many TV stations, but only digital keying is catered for internally, and this is much less effective.

Text support is an area where Imagica at once impresses and disappoints. Both bitmap and outline CompuGraphic fonts are supported, so the user can take advantage of the many superb typefaces supplied by shareware libraries, font handling is fast, and any user-defined gradient can be applied to give the finished titles a snazzy appearance, but there are a couple of bugs in the way text is handled.

Typing directly over a live video signal



Once assisted by a TBC, the grabber can

is easy enough, a fact which enables the correct matching of colours, but once the first line of text has been stamped down, all subsequent text suffers from screen

The bug is an infuriating one and limits the use of text over graphics and video, and one can only hope that G2 sort it out as soon as possible. Beyond this annoying glitch, text han-

dling is actually very good. The user can set varying levels of anti-aliasing, and as all text is treated as a brush, it is possible to rotate, flip, and skew titles before stamping them down. In conjuction with the varying rub

through and transparency controls available for all functions, it would be possible to create advanced text effects if only the bug were eradicated On the main control panel, three sliders

are used to set the speed at which a painting effect is applied (of most use with the airbrush), and the weight of paint to be used.

In effect, this slider simply makes use of the board's alpha channel to produce transparency effects which can be applied

Rub through is the most impressive option to use transparency, and works by "rubbine through" the foreground image to partly reveal the background image held in Image Engine's second 24-bit

As a full screen effect, rub through can be used to blend two images, and when



component vs composite Component video signals are composed of separate red, green, bluue, and see chronisation signals, as opposed to composite where the RGB information passed along the same cable. Component video is of a much higher quality and used only by professionals

Y/C (S-VHS) A halfway house between composite video (CVBS) and component Y/C video signals are composed of two chrominance. S-VHS video is simply a YIS signal with a separate digital audio track

time base corrector Usually shortenes to TBC, time base correctors are the workhorses of the video world and sense to boost and clean up the sync signals from video inputs to ensure that other devices can make a clean lock with them

RGB splitter/encoder A device which splits a composite signal (CVBS or YIC into its component reg, green, blue and sync signals for use with high-end

alpha channel An 8-bit (256-level) mass used to fade one image or video signal

linear keyer An expensive piece of video hardware which utilises alpha chanover (usually) 256 steps

digital keyer Usually found in the common or garden genlock, a digital keye simply slaps a computer image over a video signal using a single colour (usually other effects



capture even fast

used with a text brush or other complex shape it is capable of producing pretty snazzy results Unfortunately, Imagica doesn't have a

direct equivalent of TVPaint's density tool. so soft edged text brushes and flood fills are not possible. This is perhaps a tool which only a minority of videographers would at first require, but it adds a new level of flexibility and should have been included in a package with professional aims and a price tag to suit

POWERFUL

ture feature, potentially the most powerful brush related tool in Imagica's arsenal. Texture is used to grab a brush, then tile, fit, or map it to any shape the user chooses. In this way, TVPaint is able to give the impression that a brush (someone's face,

sphere by simply fitting the image into a circle. Imagica has this feature, but it was not implemented in the current version of Only the tile method of texture map-

ing works, a crude fill feature which can be used to create neat backgrounds from small brushes but which is nowhere near as flexible as the oppositions' textures. Imagica will have more of an answer to in this area The remaining paint features, including

smooth and smear, are impressive and fill the package out, but the filtering option is of most use. Using a rectangular filter or the gauss option any video grab can be cleaned up automatically to partly remove any interlace jitter, and the Sobel filters create very nice embossed effects.

In context, Imagica isn't really good value for money when compared to the newly priced TVPaint, but in combination with Image Engine's hardware features it does make for a good video production

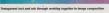
For professional users looking to buy a complete system or a card which will fit smoothly into an existing professional setup, Image Engine and Imagica make for

Those on a budget or who use mostly Y/C or composite video will probably want to save a small fortune and go for or the Amiga's much cheaper, if non-professional, solutions.











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ith powerful graphics and sound facilities there was never any doubt that the Amiga was going to make an ideal platform for multimedia presentation work.

Now heavyweight packages like Scala may have already set the standard at the top end of the marketplace. But as far as multimedia authoring systems in general are concerned, the field is still wide open and some interesting new products are

One such offering, from Eagle Tree Software, is called Helm. It's a complete multimedia authoring system that allows users, even those without programming experience, to create fully-fledged multimedia presentations.

Helm can also be used to build certain types of applications software such as simple database or interactive questionnaire programs. Its approach to the creation of its electronic books is "object oriented"

GRAPHICAL

This may sound all very fancy but what it really means is that you set up and define the pages of these books by creating various graphical objects and moving them around using the mouse

The usual first step is to set up the overall framework by creating a Form definition. A Form is the name given to a book's master page and this can contain objects which are inherited, ie shared, by all other pages of the book.

If, for example, you were creating an address book database, you might set up the form with Name, Address, and Telephone Number textfields so that these items appeared on every page of the book.

Eight basic types of Helm objects are available: Selectors, charts, shapes, buttons, imagefields, textfields, timers, and PIPfields (a specialist IV24 Videographics

Within these basic categories all manner of parameters can be adjusted and, as you'll see from the example screenshots, there is plenty of scope for variety.

Selectors are ready-made groups of buttons and text. There's a calendar, radio box, some sliders, a pop-up menu, clock, file selector, multiple choice requester, and various other ready-made units avail-

ess like Help key	Utility Books	
lelcome-	Atlas	Integratio
byPaint	BatchBook	
okBase	Calendar	Information
rds	Convert	New Bark
stemer	DirBook	Upan Book
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takes a look at Helm, an impressive new

It's all hands on

deck as

Paul Overaa

piece of multimedia authoring software

able. Charts let you display values graphically using bar graphs, scattergraphs, pie charts and so on. Imagefields are used for picture type graphics and can be linked to either ILBM pics/brushes or ANIM-5 files. from page to page of their own accord. Even the humble textfield provides a bit of a surprise: In addition to the expected characteristics, such as being able to link

them to Ascii files and use any font or colour, Hypertext links can be added to words or phrases. Helm has its own integral art package

ower

which provides all-common types of drawing modes and effects (gradient fills, adjustable air brushes and so on). There are some nice extras like reduction of pictures to black/white and antique (sepia) tone thrown in as well.

Once images are incorporated into imagefields the facilities become rather different from conventional drawing programs like DPaint because the objects can then be moved around as separate

Object creation and editing is extremely easy. Suppose on every page you want two identically sized button gadgets labelled Last Page and Next Page to allow the user to move between the various pages of a book.

Select the Edit Form menu option, choose the button gadget tool, and then use the mouse to mark out a rectangle of a suitable size. Helm automatically creates a button gadget of that size for you.

When this gadget is selected control points appear which enable you to move



A simple Helm-produces address book database

it around or, if necessary, change its size Objects can be cut, copied and pasted and NxM object duplication options are avail able which allow things like identical looking gadget arrays to be produced within seconds

Once created other characteristics, such as colour and gadget text, could then be changed by double clicking on the objects and altering the parameters in the information requester boxes that appear.

These types of object creation steps an continued until both the form and/or individual page layouts are deeme satisfactory. At this stage you've basically created one or more pages of objects and the next step is to 'program' any object that has to do anything

There are two ways of doing this and the first option is to use pre-progra actions. To add an action to an object vo pick up the action from a catalogue list provided by Helm's Action Editor and just drop it into the action list of the object

What sort of things can you make at object do? Here are a few possible Helm actions to whet your appetite. You can go to a specific page, execute a program or DOS command (or ARexx script), open AmigaGuide documents, move objects play SMUS music files, use the narrator display pictures or animations, scroll test in textfields, send text to the serial device

The ARexx connection

want to send ARexx commands to other proyou can use the guage ARexx com -

can, for ple, enter a complete ARexx textfield object and exe-

MULTIMEDIA

February 1994 MIWIFS 2 3 4 5 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

displays like these are

steerin mation about that country to be displayed.

Render those polygons invisible so that

only the map itself is displayed and the

net effect is that as a user clicks on various

countries they'll be sent to the appropriate

just the same way as other object actions.

So, links created in text files can not only

be set to move to a different area of text

but can cause other actions to be

All these things give the non-program-

mer the ability to hook up different tasks

to objects simply and easily. Needless to

say these facilities on their own are, for

Helm has plenty of other goodies as

many applications, more than adequate.

Hypertext link actions are treated in

pages of information. Neat eld



hen be

objects

infor-

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object.

Helm

ram or

, open

device

is size and play 8SVX sound samples. Actions can incorporate visual effects availtades, dissolves, scrolls and wipes and ou can even make various page layers and objects visible or invisible. In case you're wondering why you

might want invisible objects in a book try this idea for size. You could have a picture of the map of the world on a page and draw irregular polygons around countries

You then attach goto actions to these polygon objects that cause a page of infor-

well. There are menu creation options, genlock and CDTV commands. Books, pages, images, and reports can be sent to the printer or a PostScript device. A talking people facility allows the narrator to

performed as well.

be synchronised to animated figures. Five user levels are available which allow a book creator to limit the way in which a book is used (these include a navigate, that is view only, mode for multimedia presentations). Password protection is

changing the user level. Helm's approach to book creation is a bit like the object-oriented interface used by, say, Inovatronic's PowerWindows, although far more powerful.

There are a lot of facilities available and, as with all packages of this size, you can easily get a bit overwhelmed initially. During the first few days I got lost more than a few times and once even managed to reset the user level of one particular project to a browse-only state which prevented further editing

The manual is quite good in this respect and there is a chapter that deals in some detail with common problems and their solutions. OK, so I panicked a few times, but overall the whole learning process was enjoyable and within a couple of days Helm had become both fun to use

and a productive tool.

But is it good bye or good buy? Well, the latter. If you haven't guessed already I'm impressed with Helm. I'm not saving it's perfect in every respect but it is a well priced, clever, and very capable piece of

Equally important, there are no dongles or other multimedia use restrictions to contend with so, once your multimedia masterpieces are complete,

they are yours to do what you want with. In fact Helm provides a separate browser program that can be distributed freely to enable other Amiga users to read Helm-created books.

Helm runs on any Amiga with 1Mb or more of memory and Kickstart 1.3 or higher but you need Release 3 and the AGA chipset to use all of Helm's features. The package comes supplied on three

disks along with a fairly plain looking. but comprehensive and useful, A4 manual. The files on the disks are packed but both floppy and hard disk installation

(using the now standard Amiga installer program) is straightforward. The version of Helm that I reviewed (v1.44) did have a few bugs but let me emphasise that there was nothing

bug-wise that I would describe as serious. WINDOW

I found that an uncloseable output window can occur when attempting via ARexx, to open books that do not exist. I also found that some of my external ARexx control scripts were returning errors for no obvious

It turns out that the ARexx error indicator was not being set properly by Helm itself but having spoken to Eagle Tree Software I already know that these bugs, along with a few others that I hadn't been able to find, are being fixed in the

As with all multimedia authorine packages, the results you'll get from Helm will be proportional to the effort put into your work. Make no mistake though: Helm itself will not hold you back - it's perfectly good enough for serious multimedia applications and as such it deserves to do very well indeed.

Running on auto-pilot

Helm has a definite feather in its cap in the form of its own language, which allows you to program objects to perform arbitrarily complex sets of actions.

The language is a rather strange mix of Basic, ARexx and an English phrase-styled database language, but it is comprehensive and provides a reasonable selection of control structures. If-then testing, while, do-while and for loops, and even multiple choice case statements are all

The language doesn't use variables as such; it uses things called containers that can be used to store anything from numbers and text items to graphics images and music files. Container arrays are supported and the language commands cover everything from dedicated book manipulation and multimedia actions, maths functions and disk I/O (including a positional file seek command), to specialised Helm system functions. At times the language, at least with simple scripts, looks

almost like written English, as this following page movement example shows:

You wouldn't, incidentally, actually have to write scripts for performing these type of simple page turning operations because Helm has pre-programmed actions available for this.



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EMULATION

hen A-Max shipped for the Amiga in 1989, it was an There was a little cartridge you could plug into an almost completely compatible

Sure, you were turning a multitasking, who needed to bring home work from Mac programs such as PageMaker or

Word, the cartridge was a godsend. For others, though, the Mac was pretty unexciting compared to the Amiga, and A-Max was just one of those devices that you bragged was available for your Amiga but never really considered buying. Cut to 1994. The formerly boring-butcolourful machine for the arty elite. Sure, its latest attempt at learning to multitask is still rather pitiable, but the two colours of the original Macs have exploded into 16

Mac software has gone from something ters with so many fonts that they looked like ransom notes to some of the most creative stuff available for personal comput-

Programs like Fractal Design Painter and Kai's Power Tools are fascinating enough to entice even the most jaded Amiga user into wanting to run Macintosh software.

Until recently, the only options for run ning Mac software on your Amiga were A-Max II, an enhanced version of the original A-Max that took over your Amiga and was still limited to black-and-white emulation, or the far more impressive also let you run Mac programs concur-

Obviously, Emplant has been the emulator of choice for most users since its release. Well. ReadySoft's Simon Douglas. the first to successfully emulate the

Macintosh on the Amiga, didn't just sit He's been hard at work, and the result is A-Max IV Colour, ReadySoft's competitor in the multitasking, colour Macintosh

A-Max IV Colour is a Zorro II card that

will work in the A1500 and higher. It's board, except for new software and one GAL chip which is replaced. You can upgrade an A-Max II Plus to A-Max II colour. However, the new software won work on the older A-Max and A-Max

won't be able to use the product. A-Max IV is available as a complete package, or as an upgrade to the A-Max II upgraded to A-Max IV level, the older A-

Max II Plus emulation software will no HIGHER

On the Amiga side you'll need at least a least an 020), 2Mb of free RAM, and AmigaDOS 2.1 or higher. To get decemperformance you'll really want at least 4Mb of fast RAM, and a hard drive is a must - a Mac without a hard drive nearly useless.

disk drive you'll be able to read and write Macintosh 1.44Mb disks while running the emulation - a handy and sometimes neo

On the Macintosh side, you'll need to secure a legal copy of the Mac's operating system. You'll need a set of 128 Macintosh ROM chips as found in the Mac 512Ke and Mac Plus; these should be readily available for less than £100

Although the emulation will technicall work with Macintosh System 7, which can limited under that OS, requiring you to

stone1.gif (1:1)

Emplant, the A-Max Apple Macintosh emulator returns with

Overshadowed by

16 million colours. new software and an upgrade path. Denny Atkin takes a closer look

Full colour emulation gives A-Max a new dimension.

Amazing

The competition

inexpensive upgrade. But what if you're buying a Mac emulator for the first time? Shou you buy A-Max IV or Utilities Unlimited's Emplant? Each board has advantages, so it is

As of this writing, Emplant wins in the compatibility department. Because it uses in Mac II ROM chips and duplicates Macintosh sound hardware on its board, it does a mu

better job running hardware-intensive applications like games SimCity 2000 runs fine on Emplant, while it only brings up a blank screen on A-Max Star Trek: 25th Anniversary, packed with digitised sounds on Emplant, is silent on A-Mil IV - and it runs at about 1/5 speed on A-Max. Emplant's graphics updates are faster to A-Max's, but otherwise the emulations run at similar speeds. Emplant benchmarks remarkably faster in some floating-point operations using the Mac Speedometer bend

mark, but in actual operation the emulations feel about the same. And while Emplant's screen updates are faster, it doesn't offer the really impressive a useful multiple-monitor support that A-Max IV does. Also, A-Max IV offers large, scrolled

virtual screens as an option; Emplant doesn't. Utilities Unlimited are promising advanced file transfer capabilities for a future Emple Also, A-Max's clipboard support is a nice bonus. Emplant forces you to manually choose

update, but as of this writing A-Max wins in that department. Both emulators allow you to copy files between the systems, but A-Max is capable copying entire directories at once while Emplant forces you to select each file individual



turn off system caches. System 7.1 or available from any Macintosh dealer. Installing the board is fairly easy. First,

of course, you'll need to plug the Mac ROMs into your A-Max board. Then open your Amiga's case, remove the disk drive to the A-Max IV board.

Attach another cable to the motherboard, slide A-Max IV into a free slot, and close your case. Installation of the emula-

-Max IV.

bench-

application. Once everything's installed on the Amiga side of things, it's time to set You have three options for your system

disk. The easiest way to get up and running is to connect an actual Macintosh controller. Apple dealers sell these drives with System 7.1 already installed, making it a plug-and-go proposition.

Another option is to dedicate a partition on an Amiga hard drive (SCSI or IDE) can create a file device - a file on an Amiga drive that looks to the Macintosh like a real hard drive - but this is the slowest available option

Whichever option you choose, it's much easier to get up and running with third-party controllers as A-Max IV now uses the Amiga operating system to talk to the drives, so you no longer need to find a special .AMHD driver for your hard drive

If you have a high density floppy drive, installing the Mac operating system software works just like with a real Macintosh. If you have only an 880k floppy drive, though, things will be a little First of all, you'll have to special-order

System 7.1 on low-density disks - like most newer Macintosh software, Apple ship the operating system on high-density

Then you'll have to use the A-Max IV disk transfer program to copy all of the installation disks to temporary files on the operating system. As you can see, you'll save a lot of headaches if you buy a

high-density drive. Once the operating system is installed, you're ready to get up and running. Your whatever Macintosh model uses the same microprocessor as in your Amiga. The primary difference is that the A-Max IV board uses the old 128k ROMs, a mixed blessing. The 128k ROMs are less expensive and more readily available than the more recent 256k and 512k ROMs, but

you'll pay a bit in compatibility OuickDraw, so ReadySoft had to add software emulation of the Mac's colour graphics routines to the A-Max software. A few

2.5, require Colour QuickDraw in ROM running under A-Max IV One of the biggest improvements over earlier versions of A-Max is that this one doesn't take over your system completely - you can run Macintosh and Amiga soft-

ware simultaneously PRIORITY

You can adjust the task priority and

how it shares time with the Amiga side of things when running in the foreground or background. You allocate a certain amount of memory (2,100k total

You can now exchange data between the Mac and Amiga sides of your computer in a number of ways. The A-Max Mac hard disks.

options. Text and PostScript options will translate text line endings for the approcolour IFF images. Finally, MacBinary translation allows

loaded using Amiga programs to the

A-Max?

how much memory to allocate for Mac emulation; if you allocate all your fast RAM to the Mac side of things and need it later on the Amiga side, you'll have to shut down and restart the Mac emulation to change the memory setting. A-Max IV allocates most of its memory as it needs it automatically, so you can just quit

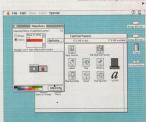
particular Mac applications if you need more RAM on the Amiga side.

The serial ports included standard on the A-Max board are only useful under Macintosh emulation. Emplant's optional expansion ports also enhance the Amiga side of the comouter: you can use the serial ports for Amiga communications software, and you can

A-Max IV is the clear winner if you need to access low-density Macintosh disks, even mough that capability is more limited in this new version. Right now the hardware adaptor needed to read and write 800k floppies using Emplant is unavailable, and the only option is to attach a real Macintosh 800k floory drive using an old A-Max cartridge or a homebuilt interface. The ROMs needed for A-Max IV are more easily found and less expensive than the ones necessary for Emplant, but they don't seem to be quite as compatible with colour Macintosh software despite ReadySoft's patches.

attach Amica storage devices to Emplant's SCSI controller.

Finally, Utilities Unlimited are promising new emulation modules for Emplant, whereas A-Max IV Colour is a Macintosh emulator only. The Apple II emulator for Emplant is complete (see last month's issue), and Utilities Unlimited is hard at work on a 486 PC emulator. However, always use caution when making a purchasing decision based on promised, rather than shipping, capabilities.



information to make sure the Mac's infor-

mation forks are retained. New to A-Max IV is the ability to transfer text between the Amiga and Mac sides of the computer using the system clipboard. Just make sure that the Finder is the active program on the Mac side and you'll be able to copy and paste between your Macintosh software and any Amiga

Note that this capability works only for transferred via the clipboard.

Along with multitasking, the most full colour support. How much colour capability you get depends on how your Amiga is equipped graphically. If your you'll be able to run in up to 16 colours not a huge improvement

RETINA

support 2, 4, 16, or 256 colours. If you have a GfxBase video card. Picasso II. or machine, you can run in 256 colours or full 24-bit, 16 million colour mode.

If you need Macintosh emulation for applications such as Fractal Design Painter that benefit from 24-bit colour. you'll definitely want to add a video and Excel, though, you'll find 256 colours

One really neat feature that real Macs have is support for multiple video boards. If you plug two video cards in a real Macintosh, you can run two or more monitors off one machine and move the mouse pointer back and forth between them.

A-Max IV implements this useful feature on the Amiga in a couple of ways. First of all, if you have two monitors - one for standard Amiga video and one for your graphics card - and you can set them up to work just like a real Macintosh. moving your pointer and dragging windows from one monitor to the other

But even if you don't have multiple physical monitors attached to your Amiga, you can open multiple Mac screens on the system. One setup I use fairly often is to create an 800 x 600 Super72-mode 256-colour screen to hold

Does it work?

A-Max IV is packed with new features, but how well does it work? Any program so radically upgraded is bound to have a few kinks to work out, and A-Max IV is no exception. Initial releases of the software have been somewhat flaky on Amiga 4000/040 and other 68040-based machines, locking up inexplicably on some systems and causing errors on the SYS; partitions of others. ReadySoft are hard at work on finding the reasons for these problems and should have them corrected by the time you read this.

Of bigger concern is graphics compatibility. Of all the serious applications that I tried, only Photoshop 2.5 had any problems (the older v2.0 works fine). But the same couldn't be said for games. I was unable to get SimCity 2000, Maelstrom, or Star Trek: 25th Anniversary to work properly under A-Max IV, although all worked fine under the Emplant emulator. Star Trek actually did load, but was unplayably slow. Then again, if you have an Amiga, who needs Mac games?



my Photoshop 2.0 editing screen, and a second 640x480 16-colour Productivitymode screen to hold all the Photoshop

access all my tools. A-Max thinks the second screen is a monitor to the right of the first one, so to change tools I just move the pointer off the right edge of the screen.

The second screen instantly pops to the front, I select my tool, and drag the pointer back off the left side of the screen, returning me to my editing screen.

native chips in the standard, Accurate refresh mode. The Optimised mode is faster, but it achieves this speed by skipping some screen updates when it falls behind: it's not suitable for Quicktime animations or games.

Finally, there's a Paranoid mode that improves compatibility with some applications that write directly to video bardware, but when it's turned on it dramatically slows screen updates

The A-Max IV board includes two RS-422 serial ports. These can be used to to connect the board to a LocalTalk netboards are also supported for connecting

Unfortunately, no drivers are included for the Amiga side, so you can't use the RS-422 ports as extra serial ports for your Amiga when you're not running the emulation.

A-Max IV can also use your Amiga's built-in serial and parallel ports. I had no problem printing to my parallel printer using the public domain DeskJet lockups when using the Amiga's serial port with Macintosh communications soft

ware Communications were flawless when I used a Mac modem cable to connect the same modern directly to the A-Max Old versions of A-Max would translate ImageWriter printouts to Epson format for

If you can't find a Macintosh printer driver for your printer, A-Max IV gives you two options. First, you can select the ImageWriter driver from the Chooser and have A-Max create an IFF image of the bitmap that would have been sent to the ImageWriter; you can then load

this into an Amiga paint or desktop publishing program and print it from Although A-Max IV has much better upgrade. Apparently the hardway isn't capable of reading the oddly formal ted Mac 800k disks when multitasking Amiga and Macintosh programso ReadySoft only supports reading 1.44Mb high density disks under the

Not only will it not read Mac-forms 800k disks under the emulation, but it also can't handle 800k disks formatted under earlier versions of A-Max

To transfer software on 800k dish you'll have to use the A-Max IV Disa Transfer program, which copies flopping to virtual disk files in your Devs: direct tory. When you boot the emulation these files appear on your Finder screen just as if the actual disks were inserted; you can then run the installation programs or copthe files to your hard drive

High density floppies can be transpurently exchanged between A-Max IV and real Macintosh. For directly accessing low density disks created with A-Max IV, von have two options.

UNIQUE

The first is to format 800k disks in a unique format that can only be read by A-Max IV equipped Amigas. The second is to use a special 720k format that can be read by any Macintosh equipped with a 1.44Mb SuperDrive.

The latter option works well in most 80k of storage. In that case, you'll have to copy the files to an 800k virtual disk file, then use the disk transfer program floppy.

As mentioned above, hard disk support is improved. Also, the SCSI Preferences feature can be used to mount other SCS devices on the Macintosh side. I was able

A-Max IV does an admirable job running Mac applications, and hopefully ReadySoft will be able to address some of the graphics incompatibilities in a future update.

This is a worthy contender for new emulatin purchasers (see the "Competition" box though), and is a must A-Max II Plus boards.









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You'll find Amiga Computing at the

Spring All Micro Show

in Stafford on Saturday April 16.

s you can see from the price, power features such as video mixing and atomated transitions - the like of which leven't been available since the demise of Progressive Peripherals and their

Although the VideoBlender was primarentirely hardware based. However if you gnore the control differences both prod-

Like the VideoBlender, VideoScan offers the simultaneous input and mixing of two plus the usual selection of key combina-

Better still, transition between the variwides horizontal, vertical, circular and inverted wipes either singly or in

As you can see from the photography, combining and fading between the various signals is handled by assorted faders on the front panel of the unit. However thanks to the special effects,

hardware control is supplemented by an speed manually. But the necessary adjuster situated in a recess on the side of the unit

Input and

output

in addition the ability to

niga graphics and output as S-

ranscode between S-VHs nd composite – allowing a com losite input to be combined with

Paul Austin examines the latest in Amiga videography as VideoScan arrives on the scene

so adjustment on the fly isn't really on the

Due to the entirely hardware-based control system, actually setting it up is very mary concern is connection to the Amiga's

Once safely plugged-in you simply select the Amiga as the power source via a small flip switch which toggles between bypass or off, Amiga, and external.

The external option requires a standalone power supply

this shouldn't be necessary unless you're running a smaller, heavily Aside from the

Excellent keying and S.VWS

always important and here again GA and med-res monitor ports r the Amiga display, in addition emposite and S-VHS loops provide separate monitoring

Add to that a separate key I/O external video system and you have a very comprehensive video-graphic environment suitable or amateurs and professionals Amiea's RGB and power, the only other essential is at least one Video In. In this with the assistance of the faders can produce all the standard genlock effects for

In order to generate the required combination you simple select composite or S-VHS input and choose Key on the output

either full or partial - between the video and computer signals

control panel. Now if you move to the dis-VideoScan special

effects ready and waiting, all you need is a time

Mixing musts

Unfortunately combining both video sigplugging a composite or Y/C cable into the second Video In.

In order to initiate mixing, both video signals must first be passed through an external video mixer or TBC (timebased corrector). Unfortunately both investment which in the case of a TBC will leave little change out of \$800.

Assuming you have the necessary hardware, connection becomes slightly more involved with either the composite or S-VHS signals connecting to video 1

However the signal must then be passed onto the TBC via the loop output option. At the same time the second. video signal is passed to the TBC directly. The two are then combined and passed onto the Video 2 input.

If all's well you should be able to dissolve and mix between the two signals using the same faders and mixing effects as previously employed during basic genlocking operations.

The only limitation in the mixing department is the inability of VideoScan

solve faders the signals can be combined installed you horizons expand consider ably with access to all the output options sole output of the first or reference video, Amiga only output, or a combination of

the video and Amiga output. However most important of all is the fourth option which enables you to mix and mixing effects apply to the two video signals rather than the genlocked combi

nation of Amiga and Video 1.





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ith half a dozen titles or so installed in your hard drive. the public domain market paid off dividends in the saving cash

There's only one problem - some of the estalled, no matter how much you assign

at there in the public sector that unfortumately require a little more work than just signing the files to the hard drive. With all the files installed in their own

laven't transferred over and need to be WORTHWHILE

between different directories (as in hard explanation for a later date...).

smable price and if, like us in the office.

of this sort. Slip the original disk of the



some of the more unseen features tucked away deep in the heart of the Amiga 1200

software that is refusing to boot up into the disk drive and then proceed to boot up the disk manager. List the contents of the disk and then bring up the contents of the hard drive in

the root (main) directory that contains the drawers named C, Devs, L, Libs and S.

both have been brought up, first of all compare their Libs files.

original disk that aren't on the hard disk



contents of DHG right, the original fla



rou can find the right command to boot the software up... use the spacebar to pause the ensuing lists

Disk managers

Directory Opus v4.1

rison of the drawer Libs between

the two - note that there are a few files

the originals across

missing from the DHO side. Time to transfer

Disk Manager

SID II

thereby installing it. It's usual for many games to have particular libraries essenthey won't run. If this doesn't work then

situation by making sure that you never be another identical file if you decide to

WORKBENCH

Some of these seemingly identical files Workbench and if put in place of the correct one, could seriously mess up other programs that already work quite successfully as they are. After all this is done and you've reset

the machine, try clicking on the game or utility icon to see if it now boots in with may well only be possible to boot up from Shell - move your pointer over to the

Type in CD DH0 (The dh0 refers to the volume where the game or utility is stored); and DRAWER (which drawer the software is in) and hit the return key. Type in DIR (directory) and the contents of the drawer will be listed. Look for

a file name that appears as if it could be GAME. Once spotted, simply type it in and the software should at last boot up ready for you to play or use to your hearts If you're having problems identifying

the required file, type in ed DH0:s/startup-sequence and look through which files the computer needs to get the program going

Finally, when exiting Shell, don't save what you've done - it's not necessary to. Simply hold the right mouse down and

go to the pull-down menus at the top of Shell without saving anything you shouldn't just in case you accidentally hit a few wrong keys. After that, fingers crossed and away you go ...

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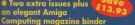
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Premier Manager 2

This is the latest football manage ment sim from Gremlin. Follow on from its predecessor, Premi Manager 2 takes the whole footbe management scenario one stage further, and although more com plex than the first version, loses none of the addictive appeal which made it the success it was.





Adam Phillips dissects the echelons of the PD that other magazines can't reach in this month's round-up of the good, the bad and the hideously ugly...

D-Day Programmed by: AM Cooke

Augilahia from: AM Cooke

With Schindler's List on the way, the topic remembered, has raised certain questions about turning what was an horrific time in

about the PD are the various educational packages that handle this kind of material with an intelligence and responsibility that informs and keeps the events that lost

millions of lives in perspective D-Day is a Hypertext-created guide to the shores of Normandy to drive the



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Presented in a series of menus, the user is able to access information on the Allies, the Nazis and the event itself. Using text and maps, these categories are split down further into more options to give a solid lost their lives.

Ideal for students wanting to find out more on the subject in a simple, easy-touse package, D-Day is another title that



tation is very well done indeed.

Morton Strikes Back

Programmed by: David Parsons Available from: David Parsons

Colourful, well-defined graphics are the looking platformer program in the vein of

Taking elements of jump-'em-ups from across the ages, Morton is a cute character arms and little else. The action revolves simply around leaping from platform to platform, grabbing coins and other such

Along the way, various beasties in the shape of snakes, birds and other paraphernalia obstruct your path which can mostly be dispatched by jumping on their heads (ahh, that old chestnut)

The gameplay is addictive and fun and contains a fair challenge with sixty levels for your money set in different areas. With

As it stands though, Morton Strik Back is a samey, albeit fun experience ideal for younger children and adults Mega Ball

a challenge that packed a hefty punch, that

AGA

Programmed by: Ed Mackey Available from: Kew=II • Disk No G1078

Breakout, eh? An old crusty dinosaur of a game which was huge in its day and

from whence it came Then, years in the making and after arcade companies had run out of any original ideas, the powers that be came out with the admittedly excellent Arkanoid - Breakout with



Don't Go Down into the Cellar

As usual, I'm happy to eat my words with this offering from the US of A.

result is 15 seconds of 24-bit graphical excellence that, while lacking in the plot department, yet again shows what

Don't go Dow





for "edutalnment" (I hate that word) program for the youthful among us

ups hidden elusively in the hovering blocks made the 2D original into a fully-

Now, for your PD playing eyes only,

Taking your robotic "bat", you have blocks with the sole aim of destroying

chance of proceeding in the game. Like

Sendishly addictive title to while away a

Mice are broken through fists slam-

ming down onto them at high velocity

and the promise of vengeance is oft

swom against the programmer for mak-

ng what is a very simple, basic idea so

The only gripe is a little dodginess on

behalf of the ball which flickers a little

when hurtling around the screen, and the apparently inexplicable speed that it

sometimes reaches for no apparent reason only to slow down a few moments

Otherwise, this little beauty is well

comes Mega Ball, a clone of the aforementioned but with even more bits and

Animal Land Programmed by: Mick Wilson

Available from: Mick Wilson

The key element to any educational pack-

age on a computer is that it has to be fun disk, if the proceedings aren't actually enjoyable to play then there is little hope for any toddler ever gleaning and retaining knowledge from the whole experi-

Animal Land is definitely fun to play and is presented as a series of logic problems. The user is presented with a landscape or farmyard and a series of numbers are dotted round the screen one on a branch, the other in the pond and so on The computer asks in a flat and emo-

tionless voice where a particular animal press the number that is on the right place on the screen. You'll then be told if you're right and the owl appears sitting on the

After a couple of these scenarios, the number corresponded to which animal. This is difficult but again useful for sharpening the young grey cells. Attracting an

Worlds Beyond

Available from: Phil's PD • Disk No. S7

Coming on three separate disks; Worlds Beyond is a compilation of some of the best book covers that'll ever grace the shelves of the fantasy section at WHSmith, let alone your Amiga 1200.

Well over a dozen pictures lifted from the novels of authors like Harry Harrison and Robert Holdstock, are provided rendered in a very fetching 256 coloured inter-

The only real gripe is that you have to boot up afresh for each disk instead of the program simply asking you to insert the next one. Other than this, Worlds Beyond is definitely worth sinking your artistic cravings into. Recommended.



A refreshingly surprising lack of semi-maked women in this AGA gailery of Worlds Beyond...

own into the Cellar – shot by shot





Calling all PD libraries... and individuals with anything remotely worth my while having a peek at. If you want something

released as PD, or you're a library with stacks of hot new stuff that you haven't seen reviewed in these pages yet, why not drop me a line with a copy, full documentation and everything clearly labelled? I promise I'll at least look at your work. Adam Phillips, PD submissions,

Amiga Computing Europa House, Adlington Park, Macclesfield SK10 4NP

audience in the office is always a good sign for any package and Animal Land is no exception to the rule. Recommended.

Willy's Humungous Adventure

Programmed by: Matthew Woodroof Available from: Matthew Woodroof

Willy, for everyone's information, is a floating bodiless purple head who's spent an age and a half hovering in front of his television screen vegetating quite happily.

But things have become just a tad congood citizens of whatever time, place and era walk through bomb-laden mazes on their way to work...

the window and focused on the actual game itself. The premise is simple enough screen with the mouse, grabbing diamonds.

and indeed, stop Willy permanently. Fortunately, power-ups in the form of easier

The Discovery of the Atom Paul Matthews

Packed with text, digitised stills and



Regular readers of this column will proba-

Phaw

Produced by: Scoopex Available from:

PD-Soft Disk No 3529 Demos must be a difficult thing to do judging by many of the ones I've received this month. Most seem to fall into

the category of whirling 3D boxes and bounc ing circles that leads to boredom-inducing viewing. While no offence is to be given to the people who write these routines because they're probably pretty tricky to do, it shows a distinct lack of imagination.

Phaw suffers from some of the above without a doubt but also included are some effects that I haven't come across before.

From the spinning cube (oh no, you think) that is rendered in wispy, web like lines (instead of the usual solid variety) to the frac-



Swirling cubes, bouncing spheres and thudding music witing few interesting effects thrown in for good measure...

tal-like swirling patterns, this does offer some originality over the competition The rave track included isn't bad either and if you're in need of a computer visual fix, then this may be what you're looking for.



and tighter steering, extra lives and even

ech 1714832 graphics nam 8 other non It's back, bigger and better than before - It's the Small Business Pack

tory. Presented in a series of increasingly Adventure is a taxing piece of software that's a real challenge but immensely frustrating at times - there's a time limit to using the mouse need time and patience to make for steady steering and the clearing of obstacles. The net result, though, is a addictive

and off-the-wall title - special merits have to go to the sound FX. Willy lets out a loud a smile creeps across his face. A drum roll also accompanies every decision made on the Options screen which all adds to the There's a definite leff Minter-ish feel to

the whole affair and for that reason plus the enticement of a truly challenging game that even comes with its own comic, Willy's big one is definitely worth a long,

The Small **Business Pack**

Produced by: GV Broad Available from: GV Broad PD Disk No U305

small business pack appeared not so long ago in the pages of this magazine. You'll no doubt be pleased that the pack has now been increased to 11 disks with a few new programs to feast the eyes and finances on. For example, Share Manager allows the user to keep a track on your share portfolio - the only problem being that prog can only handle numbers up to \$10,000,000.

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games, buy-fell share. Objective of the games is making money. ZCO TABLE SATTLE - BITLANT 2 player tank bottle-game. ZCO TABLE SATTLE - BITLANT 2 player tank bottle-game. ZCO MM DUG - Remember DUGGET in the arcade a free

prior back ECH MADOWNA NUDE PUZZEE - Total 15 puzzles (ligner type) 200 TOP SECRET - Brilliant platform games similar to CCEAN MANAGOW & MANAGOS, (not a 1200) 2020 CYSER 46TSC - The Sect defender type games with

ID CHIEF we're all soul powersp COL DOME? KING-Resce your gifs from during king (not AT200) 2014, CBAZY SUE 1 - Very cute platform games with brilliant graphics COSS WORDERLAND - Similar to Mario Brother games

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very playable too 00 MCHTMG WHRRICK - PD version of Street Fighter 2

22 puzzle type games G422 SIRDAE III - Ney similar to the commercial game 25 ROULETTE - Danielest Capina roulette sim ON TRACELAXIE - Brilliant convention of the CS4.2

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collect/jump game with very large & cate graphics similar to the DEZY series 470 BAUL LIGHTNING - Superb 1 or 2 player multi level platform game IRO MEGA BALL 2 - Version 2 of this highly placeable breakout clone 2000 TRANSPLANT - Voted the best game of 51, brilliant E_TYPE done but much better, loads of power-up

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ore OPERATION FIRE STORM - Very detailed graphic glations with late of action ES2 AGA KLONGIKE (X:OBS only) - Superb card games Single graphics Single graphics SSES KEINES FOL CRANLES - Very cute & playable loung for

fighter in this 30-game (Ighter in this 30-game (IGC) STAR BASE (1 (COSKS) - Brilliant graphic adventure

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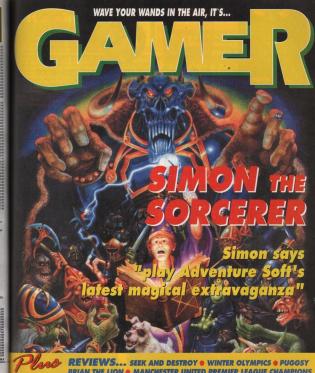
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GLOBE

All the latest news on rumours and releases for you from the Amiga games world

Biggest game of 94?

I bet most of you don't even remember February 14 1991. Well, you should do because that was the day when Psygnosis released Lemmings - o game which has delighted and amazed computer gamer

warfewide.

Gamesplayers have rescued the dumb suicidal critters from their certain doom on over 20 different machine formats and thus made Lemmings the biggest selling comput-

er game series of all him.

The green-hained creatures are this yi celebrating their third year, in which a the span of time the Lemmings family grown to include Oh No! More Lemmin

the opis sequel termings 2: the imos and the sossonal smash-hit Christmas termings. The original termings is still being converted to other machine formats, plus the Lemmings merchandise has increased to include the Lemmings comic strip in Max Overload - there's even a TV cortoon in the

pipolins. The real news if you haven't guessed by now is that Lennings. 3 is coming soon. According to a Physposis spokenism, According to a Physposis spokenism of soon in such more frastic first that a contain much more frastic first than the new before. As soon on we find out more details about the suicide-emap which is sure to be one of, if not the tiggest game of the year, we'll be sure to let you know.

Virgin

Virgin Interactive Entertainment have strengthened their existing fies with Europe's leading develop-

ment team, Sensible Software, in a deal that will

deliver a spectacular series of products over the

Virgin have signed up the next sports simula-

tion from the team, Sensible Golf – a game that will build on the reputation of the classic Sensible

Soccer. Golf will be released for the Arriga in the

last quarter of 1994. Virgin's European managing

get Sensible

director, Tim Chaney commented on the link-up: "Sensible Software's track record is second to none and we're delighted that our ongoing relationship with them now stretches well into 1995.

"Having worked with them over the last couple of years we know exactly how good Sensible is. It makes serve for the number one publisher to seek strategic ellionoes with companies like Sensible." Sensible's managing director. Jon Hare added:

strategic alliances with companies like Sensible."
Sensible's managing director, Jon Hara added:
"We've worked very successfully with Virgin
before and they're our perfect publishing partner.
They always put the product first and share our
obsession with quality. We're both determined to
make the next generation of Sensible product the

best yet."



One of Sensible's previous efforts, the award-winning Sensible Soccer

Sierra kick off!

Sierra are renowned for publishing top quality adventure games like Leisure Suit Larry, Police Quest, Willy Beamish and Space Quest, but they're about to enter the sport simulation market with Sierra Soccer. World Cap Edition.

World Cup Edition.

The game contains 24 World Cup teams plus the option to include teams that didn't manage to qualify this year like, er, England. Each team that didn't manage to qualify this year like, er, England.

colours. Sierra Soccer is presented in superb 30 with 4,000 frames of player animation. Other animation sequences include the referres showing veillow and red cards and the shryios and stretcher-bearers restring body

injured players.

There will be loads of digitised sound and speech effects for corners, There kicks and penalties. Sierra Soccer is looking like it could be a bit special and happfully we'll have a preview lined up for the next issue.





The game includes the option to choose between 24 World Cup teams

It's show time!



The property of the property o

invariants. The major index (2) this for machines like Commoder's (C2) and Milps (X) has early launched manis whose or many an electrical state of the commoder's (C2) and Milps (X) has been designed to introduce manis as a facility of the control of the great solvery in the control of th if the heart of the converging entertainment market."

If the heart of the converging entertainment market."

If show starts on the April 10 and runs for three days at the Business Design Centre in Landon

Its trade and press only, but we'll be there to give you the low-down on what's hat for 1994.

Thomas the Tank certified!

Alternative Software, makers of the Thomas ply with the new video and computer game labelling regulations. They are currently re-packing all their popular children's collection to include the Uc label which means that the

spe

extension of this policy." A new game featuring Thomas the Tank while the original game is going to be re-

include the Uc label

Talkin' trivia

Trivial Pursuit, the activity which causes divorce and family breakdown, is the world's most popular board game and Domark have specially developed the name for the CD32. Using the very latest CD technalogy you can now answer questions based on actual recorded historical speeches and

Each question is also accompanied by a



digitised picture and an animated Master of Ceremonies, Russell the Bird, is there to guide you through each stage of the game and keep your scores.

Russell the Trivial Pursuit bird's script and voice was provided by a guy called Chris Langham who has previously worked as a scriptwriter on The Muspet Show.

There are over 2,000 questions spoken by the quiz master, plus guest celebrities such as William Shakespeare and Mae West will ask you the various categories of questions. Trivial Pursuit CD32 should be available by the time you read this and it'll cost you the measly sum of £29.99.



NNARDS

It's big and it's bulging, but enough of my problems, here's this month's superb bunch of games

REVIEWS • REVIEWS • REVIEWS

Man United Premier League Champions......112

Krisalis' third Man United license and this time it's going to give Sensible Soccer a good run for its money

Puggsy.
He's an alien and he waddles and to be perfectly honest that's all I know about Psygnosis' latest platform star. Sorry!



REGULARS • REGULARS • REGULARS

April 1994 GANNER (III)

Gremlin in the works

though he was in a bit of a hurry at the time, we managed to catch the industrious lan Stewart and sat him down for a chat about life. the universe and everything.

in first started out working for Laskys, a high street retail outlit that stocked computers. Making his way up the ladder to become group manager and in charge of five stores (an noticed that there was a definite lack of support software-wise in the slowly expending computer market. lan oot some cash together and decided to set up a

shop selling software called Just Micro. He then saw the massive opportunities in actually producing the games software. He quickly found people to produce the games and thus Gremlin Graphics was born.

Gremlin's first ever game appeared on the good of Commodore 64 in 1984 and was called Monty Pigeon which was incidentally programmed by Tony Crowther who more recently has made his name with games like Captive and Liberation.

Competing against the likes of Ocean and Imagine way back in the mid-80s was something lan enjoyed. He took a very active role in producing most of Gremlin's products back then and luckily still manages to do the same now, although obviously he's not as involved as he was before

lan lists Lotus Esprit Turbo Challenge, Zool and Premier Manager as games that made Gremlin step up a gear and move into league with the big boys of the computer software industry.

He doesn't actually have a favourite game although he's happy to mention Zool simply because it was and still is Gremlin's biggest selling game

When asked about the future of the games industry, lan predicted that most companies will start to tighten their belts. He also foresees that larger groups will join forces to make the best use of up and coming technology such as the CD format, plus there will be lots more corporate

Gremlin's MD also says that they have no desire to stop developing for the Amiga simply because the machine has proved to be so successful for them. He also deems the CD32 to be a very good prospect. This is backed up by the fact that Gremlin have some CD titles currently in development although it's all very hush-hush at the moment and he wouldn't tell me anything about

When asked about his what he likes about the games industry Ian said he appreciated the challenge and creativeness of the job. When asked about the other side of the coin he said that he doesn't like the number of computer mags available and could walk into a shop, pick up six magazines and couldn't tell which one was which although he did say that he liked Amioa Computing because it tries to be that little bit different from the norm. so a big slap on the back for us methinks.

My final question to lan was about the future of Gremlin Graphics to which he simply replied: "Our commitment towards the games industry speaks for itself."

Gamer gives you yet another low-down on what makes a software house tick. Jonathan Maddock talks to two of Gremlin's prime movers about the past, the present and the future, while Simon Clays takes a sneaky peek at two of the firms forthcoming releases, K240 and Hero Quest 2



Patrick Phelan • software manager

noticed a job advert for Greenlin and

went for the position and got it. Now

an established member of the team,

Patrick says although he gets paid well

he does his job because he loves doing

He likes the people he works with











money waiting for one of the "super" mochines, because this means that they are just siting on their machines and neglecting to buy software for there. When asked about the future of

omes and the technology involved Patrick says that he is easierly looking forward to virtual reality: "VR is a big big, big, big thing, but I don't think that it will kill games. It will create an illusion and get as real as you'd need it to

Gremlin's Saltware Manager also believes that the public will have VR in the home within the next year and a

When questioned about the future of Gremlin Graphics, Patrick foresees the company climbing onwards and upwords. He's not particularly warried about being taken over by a big corporation, but it would be nice to have branches of Gramlin all over the world.

Technology-wise they are looking years ahead and have already started work on research projects involving things like the FMV module. Like Patrick I can't see anything stop-

ping Greenlin from going onwords and upwards because from what I've seen the firm's future is looking very bright



Patrick is also a first-rate musician

and worked on the tunes that appeared in games such as Zool, Premier Manager, Nigel Mansell's World Championship and the forthcoming Hero Quest 2.

Although he's now a software manager he still likes to keep his hand in on the musical front especially now that the new CD format has been

Potrick works at Gramlin during the eek and despite hassle from the girlfriend still manages to find time to write music at the weekend. He lists many different types of music that he likes to listen to, from ambience/dance to classical, and he even has a fondness for film

Patrick started off his computer career by creating programs for business systems. He says that his work at that time was rewarding, but very bar-

and although it would be easy for him to, he doesn't want to move, simply because the work he does is so interesting and exciting. Ask him about his favourite game and he'll anthuse about Greenlin's own Premier Monager 2. He reckons the key to the game's success is the fact that it is so absorbing and he's quite happily had the "one more game" syndrome

right up to three and four in the

Patrick says that it's very difficult to predict what the public wants from software and hardware trends, but he does believe that every game should have a two-player or multi-player option. I quote the man himself. "Let's face it if you were to play something like -Bomber Man on your own you'd have to be Captain Sad from Sad land."

There is some fontastic technology available to the consumer today, but Patrick hates people who save their





white draft of what the box arts for Hero Quest 2 will eventually look like

Gremlin Previews.

Since the major success of games like Zool, Utopia and the Lotus titles you might think that the Gremlin Graphics team have been sitting back and resting on their laurels. This couldn't be further from the truth! Simon Clavs investigates two of their forthcoming releases

K240: Utopia 2

Back in 1991 Gremlin released a title in the God game bracket. Somewhat of a fusion of concepts from Sim City and Populous, Utopia sat you in command of a struggling planet colony in the frontiers of space

Equipped only with the bore minimum was to expand the society on your planet, while opposing potential threats from

other lifeforms Utopia was an extremely popular title on its initial release and has entered many a gamer's hall of fame as their number one title in this genre. Well, two years on Utopia is about to spawn a secuel in the unlikely fitled K240 Set in the year 2380AD, the Terron Empire has expanded into the majority of the known galaxy, and controls over

50 stor systems. The story develops with mankind encountering several alien species and eventually combining technologies in a quest to reach the stars. However, the Empire has run into hard times, with inter-colonial arau-

ments erupting throughout the star systems, escalaring into minor wars. Following these minor skirmishes. ommunication networks began to break down and natural resources got scorcer because of overmining on worlds began to hoard their resources and the breakdown of

the Empire started. Salvation came in the form of an imperial exploration fleet that had departed for the Larger Magellenic Cloud (a small demi-galaxy that orbits our own) some 40 years earlier. On its return it reported the discovery of hundreds of new stor sys-



of equipment and resources, your aim Gremlin softogram

20100	grapny		
Zool			
Zool2	AS00/A1200/CD32	Switchblode 2	
Premier Manager	A500/A1200/CD32	Supercors Supercors	A500
Promier Manager 2	A500/A1200	Supercors 2	A500
Disposable Hero	AS00/A1200	Slodz	A500
The Latus Trilogy	A500/CD32	Shoe People	A500
Lotus Three the Ultimate Challenge	A500/CD32	Shadow of the Beast	A500
Lotus Turbo Challenge 2	A500	Chart Atlack	A500
Lotus Esprit Turbo Challenge	A500	Four Wheel Drive	A500
Nigel Mansell's World Championship	A500	Toyota Calica GT4 Rally	A500
Hero Quest and the Return of the Witchland	A500/A1200/CD32	Flank	A500
Space Crusade and the Voyage Beyond	A500	Utopia - The Creation of a Nation	A500
Harlequin Harlequin	A500	Utopia - The New Worlds	A500
Videokid	A500	Venus the Flytrap	A500
Plan 9 From Outer Space	A500	Team Suzuki	A500
Ultimate Golf	A500	16 Bir Hir Machine	A500
Impossamole	A500	BSS Jone Stymour	A500
Switchblode	A500	Pegasus Pegasus	A500
	A500	Suspicious Cargo	A500
		andrewes Catalo	

inhabited worlds. As this situation magnified, so the corporate-controlled systems made up of unlimited planetary material and

Of most importance to the Empire was the fact that these star groups were densely populated with valuable resources that were much needed by the Empire and could safely see them into the nest millionism.

Also, there were a whole host of new unknown ones that had never been touched by human hands that could expand the technology of human kind. With the prospect of billions of tonnes of one waiting to be

mined, colonies started to pop up all over this once uncharted region of space. Within ten years the corporations had established major

fields and were shipping back large quantities of ones, But, as well as the major companies, licences were granted to independant traders.

They were encouraged to fund colonies with the under-

standing that they got to keep 30 per cent of any revenue that was generated from one sales.

It's at this stage that you're going to enter into the foray.

When K240 is consoleted you'll take an the role of one such

It's at this stage that you're going to enter into the lotray.

When K240 is completed you'll take on the role of one such independent who has recently established a pionering colony in an uninhabited section of the Magelletic Cloud.

Your missions are all going to plan, until one of your secut.

hips disappears. At first you're convinced just a system failure is to blame for this phenomenan, until another one of your ships is probed by an alien craft.

As the commander of the colony you will be set several objectives, which will have to be managed and scrutinised wery closely if you are to be successful.

First and most important will be the exploration of the Cloud for ares and the expansion of your colony and your mining operation.

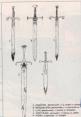
Also, you will have to maintain the day-to-day running of your colony, investing time and manuy into developing scientific research into new inventions.

These breakthroughs in technology will encourage better productivity, which will in turn boost the supply rate to the workforce. As well as the possive workforce you employ, there is also

the development and deployment of your colony's milling to take one of. K240 is set to test your strategical abilities and skills at people management. On the one hand you'll have over 40 different styles of building to manipulate, while you juggle your evalperation of up to 24 actoricity per sector with the

other.
You'll also have to dispense with an control the six different aciden races that inhabit the region around you. To do this you'll have to expand your technology base and improve your manifors plants to facilitate the different ships and missilen you'll be capable of manufactures.

K240 will also include digitised speech, atmospheric sound effects and a very impressive cinematic opening sequence, but it is not going to be a game for the faint heartd, and you're going to have your work cut out for you with the level of intelligence and strategic qualities the enemy are to be pro-





rom the Gremlin art departmen

grammed with. After the out-of-this-world success of Utopia and all the resultant enhancements and new scenarios that K240 boasts, I think it's fair to say that strategy gamers are going to have both their hands full for a good while.

Legacy of Sorasil

Following the success of the Hero Quest board games, Grenlin were given the task of convening this popular RFG anto the Arriga.

Now, the award-winning 3D isometric adventure game is



about to give birth to a sequal in the shape of the Hero Gai Mosters series. First to see the light of day will be the daw completion, legacy of Sonosil. Set in the folbed land of Mino, you will be charged with task of discovering what malignant evil power is killing at

good falk of the land with a plague.

To help you in your crusade to free the land, you will be to exist the selector of a team of observaries. You lable to choose a party of four heroes from a range of as would bes. Perhaps you'll enjoy the boom entiring root of Borbaries, or maybe select the subtle powers of the Mystic.

Choice will be yours.

Using a point-and-click interface system you must comyour band of adventurers, and lead them through the land

a search for clues.
You will be called upon to combine magical skills with the blatest muscle of swordsmanship as you battle your well-through ten stages of highly intelligent form.

through the stages of highly intelligent test.

Linkie in preferences regard of Scroal takes place in multitude of locations, from the dark dank depths of liverpies King's barrow, furnough to the overgrown redin the Iron-Wood lovest, they're all these for you to explore.

As you (pumpy firough the land of this you'll bern dain intricate history, and inevitably find class that may feel in trinicate history, and inevitably find class that may feel.

Legacy, of Sorasil is shaping up to look like a rather lar 3D extravaganza in the world of sines game by. Using a easy to use play system and the now formline point-and-siscontrol method, Legacy of Sorasil should appeal to but adventures and arcade loves alike.





Building new spacecraft is just one fac that will test your strategical abilities









Genesia - a game of creation and power for 1 to 3 players.

The owner of a small land, you must expand and develop your population to become the most significant in the world of Genesia. In 5 worlds, each requiring unique strategies, you must manage everything, from food and water to employment and taxes.

and taxes.

Will you conquer the lands of your 2 opponents, or form an alliance with them in an attempt to recover the seven missing jewels?

Only with a strong economy, powerful army and new technology will you fulfil your ambitions.



Mindscape International Ltd., Priority House, Charles Avenue, Maltings Park, Burgess Hill, West Sussex RH15 9PQ Tel: 0444 246333 Fax: 0444 248996

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Man Utd Champions

I's been quiet on the football game scene over the last few months and the Sensi vs. Goal war has died down, but there's a new challenger in town. Going by the name of Manchester United Premier League Champions,

this new boy is ready to give its all and take the footballing crown. It's been produced by Krisolis and is in fact

their third Manchester United licence. The previous two efforts were viewed from the side and Krisalis thought that they weren't going to gain anything by producing yet another one

Unashamedly inspired by Sensible Soccer, Krisalis have created a football game that is viewed from above. You might think that there's first and did it best, but you would be wrong because Manchester United Premier League Champions is the game which Sensible Soccer should've been and never was. Whereas Sensible Soccer was a cartoon-like

and more arcade-based game, Krisalis' new piece of software is a true football game for true fantball fanatics. It could almost be called a management simulator and this is because it has a huge strategy element to it.

This is all thanks to Krisalis's Tacti-grid system. The grid lets you decide where and how you want your players to play. For instance, you can make up any formation you want and unlike

You could have all your team in attack which will leave massive gaps in your defence, but at least your team will stick to this system until you decide to change it. That's just one way of playing that perhaps you'll never use, but it illustrates the point that your team will do exactly what you

A much better and more practical example would be to tell your full-backs what they should do. Should they stay back in defence or do you want them running up the wings to put crosses in for your forward men? The choice, as they say, is yours.

Manchester United Premier League Champions has every team from the Premier, Endsleigh and Vauxhall Conference divisions featured in it. Each team has "real" players and each one of these players has his own defined skill levels

MAXIMUM

Ryan Giggs, as an example, has most of his ratings at the maximum level whereas players ings. Most other football games tend to have all the players at the same skill level, but by giving individuals different ratings Krisalis have man aged to make Premier League Champions as

realistic as possible. As a rule previous football games have had the option of making your own league and cup competitions and Premier League Champions is not an exception to this rule, but it does give you the chance to play an entire football season or seasons if you're a dedicated enough games

You start off with your fresh squad of players and take part in the League, the Coca Cola Cup and the FA Cup. As you progress your players will get injured and you'll have to change your

team selection accordingly You can also keep an eye on your league position, your squad, top goal scorers and injuries from a whole wealth of statistical information. Weather conditions play a big part in football games and also in



A nice feature in Krisalis's football game is the option to choose away strips. Make those colour clashes a thing of the past



Ryan "nice wiggy hairdo" Giggs bears down on the Spurs goal displaying his talents in the dribbling departs

MANCHESTE

pitch conditions will change, from a hard and dry pitch in August to a frosty pitch in December

I guess you're wondering about what the actual game part is like. Well, there is obviously a huge Sensible Soccer influence to Krisalis' third

Manchester United game as you can guess from the screenshots, but they do play differently. Sensible had very "blocky" player graphic and although they did the job well enough they weren't exactly realistic. The sprites in Krisalis' effort are slightly smaller, but much more welldefined than those seen in Sensible Soccer.

There aren't any fancy graphics around the pitch like a stadium or dug-outs, but this doesn't

really matter because you'll be so focused on the game that you'll not notice.

The pitch surfaces can be varied; all the usual pitches are in there like the mud surface, but there are a couple of new ones like the foam and frosty pitch or the "this game should've been abandoned" as we in the office like to call it!

At first control over the players is quite diffcult. rather like the sensation you got when playing Sensible Soccer for the first time, but practice makes perfect and within no time at all you'll be spraying balls all over the pitch like Erre

You can make the players shoot, lab, pass head, chest and valley the ball. Valleying is par ticularly impressive because the balls room



The Tacti-grid is a new and innovative feature that actually works! This stratogy element of the game makes Krisalis' effort really shine



Action replay

Crimbsy forward. Tony Ford makes his way towards Bolton's penalty area



The nimble forward skips around a couple of defenders with the ball still glued to his feet



Tony heads towards the corner of the pitch and then sends over a lethal cross



The ball floats over the Bolton keeper and it's getting incredibly close to the net



Oh my word! Tony Ford has curied the ball into the net. Grimbsy's second goal and it's all over bar the shouting

CHAMPIONS

Krisalis return with vet another United licence, but believe you me this piece of software is going straight to the top of the league

cross the screen like a nuclear missile and, of ourse if you manage to get the ball in the back

the net you can look very smug indeed. Manchester United Premier League Champ as lots of little rice touches, like the replay funcon. Not only can you rewind, play and watch the n in slow motion, but you can watch your

goals going in from the opposite viewpoint This was always a problem in Sensible Soccer when shooting down because you missed most of the action thanks to the goal being in the way. You can substitute your players, but normally in other products you have to wait until your players' legs are half falling off. Krisalis have



iric "Oo-ah" Cantona gets his marchine orders for kicking the keeper's head in. See I told you it was realistic



Blackburn Rovers line-up against Newcastle United. A quick toot from the ref and the battle will begin...

rectified this problem because when a nasty tackle goes in it actually tells you what state your player is in, this makes those important managerial decisions a lot easier.

Another interesting little feature is the ability to name who takes the defensive and attacking free-kicks and more importantly who takes the penalties. OK, so it's maybe not that important, but it's a lot more realistic than having the player who got fouled take them

It's all these nice touches which turns a very good game into a brilliant piece of software and the only thing which I noticed that was left out was the ability to transfer players, but hey you can't have everything can you.

Although I detest Manchester United I have to say that Krisalis' Manchester United Premier League Champions would make it onto my top ten Amiga games ever. I've thrown away my copies of Sensible Soccer and Goal because Krisalis have created an ultimately more satisfy ing football game that will appeal to the true football fan

The graphics are nicely presented and highly realistic. Couple this with its level of playability and addiction and you've got a hell of a game on your hands. The management element is what really makes the game for me because it makes the product for more interactive than previous football software

You might have a problem in controlling your players at first, but over a short period of time you will start to master it. Krisalis have analyzed some dama fine foots games in the past, but this surpasses them all. I

don't know how the games-buying public will take to it, but I've not been able to put it down

and I'm off to play it again as soon as I've scribbled these last few words down. I could enthuse for most of the magazine about how good it is, but space forbids me doing that. I put my hand on my heart I advise you to buy it. I promise you will not be

JONATHAN MADDOCK



Chant "Ala-Kazam!" and other magical-type sayings as we find out whether Simon the Sorcerer weaves a spell or gets stuck in his magic circle

I's not often that a piece of software wings is not other that a prece of software wings its way by corrier pigeon to the Gamer solitory confinement cell. In fact come to think of it it's quite a renity for anything at to come into the office by that means. That aside, it's not often that something

ds it. In the case of Adventure Soft's new mon the Sorcerer there were two uncarny tions that sent an icy chill down my spine. the same namesake, and secondly, well I'm not a sorcerer, but when I was in Greece on holiday No, seriously, not only do we share the same imesake, but we also have the misfortune of

coming from the same region of the world. So knowing that Adventure Soft draw their experience and rich sense of humour from that hakyon heartland of Birmingham, I decided to jump in and give them a fair whip of the proverbial crack fam I meant to say that the other way

It's not that this reviewer is particularly sentimental about the area he grew up in, but he knows the prejudice that midlanders have to endure from the rest of the mocking public. Due to the nature of the occent everyone thinks that Brummies have the IQ of a toofsbrush, and it doesn't matter if you're the Dean of Aston of Saunders you understand University, people



ng and humiliation haven't held Adventure

Simon the Sorcerer is a point and click grap al adventure. It will no doubt be compared that Amiga bench

mark adventure, Monkey Island 2, whether the two are an avenue we'll stroll along later. feature a strong element of humaur that render them

Simon's frolics begin when he receives a lim

impossible to take too seriously. This isn't to say that they hoven't any depth to them or that your Being a point-and-click style romp, Simon occurer's gameplay is fairly simple to mash he screen comprises of a graphic window, mind drifts while playing, it's just they never

thickens the gravy, when Simon, the central dis-

ter, is thrust into a world of spells, maaic

That's all the plat th

tempt to be anything more than fun. The plot begins and the metaphorical corrflour loys a very smart a

ility that sends you to the location of your cl



ers a troll-and-goat

Our hero takes time out to admire the splendid view... now there's Wales for you, not



Out in the frozen wastes, Simon takes time to play musical statues with a Cos

erray list and a command list.
The graphic window allows you to see Simon
it quite good being able to refer to the game as
mon, because I could be bearning subliminal
assages about myself to yout, control lies anovemats, communicate and interact with other char-

alkto Lookat. Open Move onsume Piek up Close Use

to Remove Wear Cive

Moving your apprentic wizard is just a simless of circking on the display area with your case. Everything else you require Simon to do controlled from the command list.

let the and if it of the

might secreti

naster. Iw, all For example, if you wish to use Simon to communicate with someone, you simply click on the "labt to" option and then point your mouse over the person with which you wish to speek. Most of the other commands that you can carry out operate in this manner and in the majority of cases you are only having to click on

the action and the character or object you wish to interact with.

During play if you've chosen to talk to one of the characters and their answer requires a realy. then the you are given a list of replies or questions to dick onto.

One of the handlest features in Simon the Socrear is the way the game handles mapping. Like many of the more modern titles, STS features

Like many of the more modern titles, \$15 features on auto-mapper, so you don't have to wester valuable time, pentil lead and elbow greese on drawing on graph paper.

Apart from its time-swing element, the map in Simon has another quite unique facility. If you dick on any location that the auto-mapper has

mapped, then you're automatically sent there. This not only saves time, but also stops any element of baredon that might everp in from travelling through the same locations. The locations are some of the most visually ottractive I've seen on an Amiga. While they

don't pretend to recreate any type of reality, they're stylised in such a way as to give the feel of a fairy tale book. In fact, some of the characters are pulled

In fact, some of the characters are pulled straight out of the realms of the Brothers Grimm. So, don't be autonished if you run into wicked witches with houses made of confectionery (there must be a licence fie-in there fellos) or tralls, or goods who are fairly gruff to say the

tests.

The attention to detail throughout the whole of the adventure is quite sturning. For example, as you are wendering through the forest you'll see equivalent us up these in first of you, so but tellius fit and settle around your head (non, it's a hippin /New Age dreamer's harves).

While we're on the topic of graphics, it's

write we re on the topic or graphics, it is worth metalorising that firet are two versions to be released. There's the standard ASOO version, and an A1200 version which has the obvisous advantage of having the extra colours. Apart from this, there aren't that many other noticeoble differences.

Simon the Sorcerer is crom-packed with puzzles, furny quips and silly asides. While it's a title that you're not meant to take too serious by, it will give you planty to think about if you're to complete it.

The main reason for this is that some of the puzzles are really quite abstract in their formulation and will take a considerable amount of time to deduce. This shouldn't be thought of



Remember this adage: If in doubt it's better to be a man with a pig in a poke, than a man with none at all

as a criticism, but as a way of making a thoroughly enjoyable sarcastic ramp last that little longer.

longer.

On the sound frost, Simon has a recurrent thems that rans throughout the whole game. As computer soundbracks go if in an I to bod: it varies departing upon your encounters and is, or at the end of the dry, best described as catchy. But like most songs that drop into that groomy you and up baings it intensity.

All the end of a very mongical extravaganax of ade, all has to be said that Simon the Sacreer is

a day, it has to be said that Simon the Secreter is a really enjoyable, highly playable piece of software (well falls, how could you slag your own namesche off?).

I think that even the programmers expected companious with Mankery Island 2 to be mode.

I man that even the programmers expected comparisons with Mankey Island 2 to be made. However, while Simon the Socceter uses the same type of technique to control all of your actions, you could never accuse Adventure Soft of copying Mankey 2.

So readers, if you're concerned that you're

going to be buying a clone – forget it. The only real similarity between the two is the fact that they are both easy to pick up and get into, and are both endowed with a tod more wit then your normal afferings.

Simon the Sorcerer is a very large (nine disks.

norms amerings.

Simon the Sorcerer is a very large [nine disks in all) well thought-out graphical adventure that'll keep you happy and out of harm's way in the land of giants, fairies and dwarves.

SIMON CLAYS



kalk to Look at Open Hank to consume Piok up Close Use alk to Remove Hear Give

Another idyffic mystical setting to sigh at as you journey along



"For the last time I'm 18, now can I have two pints of lager and a packet of those sausage and herb crisps?"



HD Install > Yes Size > 1 meg

ght, hands up who knows someone who owns a Super Nintendo or a Sego Mega Drive and is always broaging about how "good" the games are. I guess it's just about every Amiga owner out there. I bet you've always wanted to give them a good smack in the face and show them that your Arriga can keep up with the so-called super "console

Well, now you can! I don't mean you can actually hit them because you'd go to court and get done on a ABH charge and you'd probably sue me for telling you to do it and I'd fall out with you and counter-sue and - well i'd all get out of hand.

No, instead of using your fist, use Brian the Lian as your haymaker. Published by Psygnosis and developed by Reflections (previous credits include all three Shadow of the Beast games), Brian the



The start of the platform adventure and Brian gets himself on the map. He is, of course, our mane man!



w Amiga owners you can have super duper revolvi topsy-turvy platforms just like your SNES-owning chums

Lion is a platformer that shouts an "anything you can do" warning to all those pesky Sega and Nintendo owners. Brian is a new kind of hero who wears a wild

pair of beach shorts and has an awesome quilt that even Elvis would be proud of, if he hadn't of died on the trilet that is, Brian may look cute, but under neath that character lies a pair of sharp daws and Subtified Rumble in the Jungle, and a year-and-

a-half in the making, Reflections's platformer is a tale of friendship. One day while Brian was chatfing with his best buddy Chris the Crystal, they were suddenly interrupted by a bia, unly monster called

PRISMATIC

Geeza, who likes listening to dodgy guitarbased rock bands, has kidnopped Chris and is going to use his prismotic powers to hypnotise all the jungle creatures and crown himself king of the

So Brian is sent forth on a quest. Our "mone" man must take an wave after wave of Geeza's followers and cross the island in order to save his pal

and reclaim his title of King of the Beasts On the surface Brian the Lion looks for all the world like a bog-standard platformer, but I person ally don't think it is thanks to the gob-smackingly good graphics

It features full multi-layered parallax scrolling. 182 colours on-screen at once and 50 original tunes, and is the first game to introduce the famous Super Nintendo Mode 7style effects onto the Amigo. These

effects are used to zoom, fade, and rotate the graphics and can even map on image or texture anto a cylinder

Brian the Lian is not

400

Roaring good platform fun from Psyanosis, I'd be lyin' if I said it was rubbish! Geddit! Lion? Lyin'? You see they sound the same, but they're spelled different, oh just forget it

۲ñ

all platform action though because halfway through, the game mutates into a left to righ

old Gremlin game called Pegasus. This break in the constant platform fun is most welcome and stops the gamesplayer from getting

Reflections's platformer contains some really nice touches, especially Brian's roar. This can be used to kill smaller creatures and startle middle-sized creatures. Try it against one of the end-of-level bosses, though, and you'll get your comeuppance...

On first glance, Brian the Lion looks and plays like every other bog standard platformer, but if you probe deeper you'll find a wonderful and highly stylish

Reflections have done a impres sive job in creating a console product for the Amiga which proudly boasts just what Commodore's

machine can achieve. The araphics and sound are jow-droppingly good, the addiction level is just about right. Playability-wise you can't go wrong and Brian the Lian has so many nice touches that you couldn't possibly list them all one page

OK, so it's maybe not that much different from an average platformer, but it is rooring good fun and it's my favourite platformer of the

JONATHAN MADDOCK



Be afraid, be very afraid! Brain takes on a menagerie of beasties, ghouls and goblim in the spooky graveyard level



A bad case of hot bot for our intropid Lion adventurer!



on the screen, the sound's creat it plays like a platform tainly the best platformer I've played in a long time.

Publisher > Psygnosis HD Install > Yes Size > 1 mea

SNIGGER SNIGGER?

imat's so bloody funny? The game is called SkidMarks, what's wrong with you poms? Not my has every Amiga magazine devoted columns of childish schoolboy humour when widewing the game, they seem to have missed the point. The point is that SkidMarks is a communications revolution just waiting to happen!

with a 2400 baud modern, registered SkidMarks racers will be able to compete in our national mampionship. Over the next few months we are fine tuning the comms code and polishing wither 12 competetion tracks to kick the championships off this June.

and if you haven't already got yourself a copy of the racingest, chasingest, car game of the secade then get your pedal to the metal and race down to your software shop now!



"A milestone in Amiga games. One of the most playable racers ever... If future BlitzBASIC james are as good as this one, we are going to see the Amiga and CD-32 become the games machine of the decade... SkidMarks is for Car Racing what Kick Off was to Football." CU AMIGA SCRENSTAR (2924)

An immensely satisfying experience akin to peeling those stringy white bits off tangerines... SkidMarks is without doubt the best racing game I have ever played outside of an arcade" AMIGA ACTION ACCILABLE (90%)

"A no nonsense, adrenalin-pumping racer. SkidMarks is beautifully simple to play. Like SensiSoccer, this is a timeless two-player game which is likely to be dragged out of your collection time and time again."

THE ONE (88%)

It bring's out those primal competitive urges, better than running around in woods naked and banging on big drums. It's packaged playability, it's canned competetion. It is great!* FORMAT GOLD (90%)



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BLITZ NEWS

New AGA support is now available for Bilitz2. All the enhanced display capabilities of the AGA chipset have been made available to Bilitz2 programmers including 24 bit colour control, 256 colour screens, super hires horizontal scrolling, 64 pixel wide sprites and more.

lew GadTools support offers the pplications programmer access 12 new gadget types including liders, scrollers, listviews and alette gadgets. New ASI upport allows the opening of creen, Font and File lequesters in single commands.

urrently under development fo flease in subsequent BUN sues (Blitz User Magazines re:

Developers-Pack for creating Blitz2 user extensions GadTools design utility CD32 specific command libra Highspeed animation langua

f you're programming the Amiga and haven't taken a serious look



on i



The pickled onion, err I mean Puggsy has a word in your shell

Stifle your cynisism for yet another cutesy platform effort

hese days platformers are churned out faster than a whipper on speed and spectacular to attract more than a glance from your average An unusual anale or puzzle

element is not enough any more to gain interest and I'm afraid Puggsy falls into that same desperate black hole of hapelessness. In fact it maybe worse fron that... much worse.

Puggsy is your usual "aah, isn't he cute"-type of character who adds to the sickliness factor. He is an alien (yes, very original) but looks uncannily like a pickled orion with a condom on his head

world to ask directions but unfortunately some racoons have decided to steal his spaceship. Oh what a story line, the powers

of aenius, hev? Puggsy's only hope is to battle through the 17 different locations, 5 face the ultimate guardian and even-

tually rescue his spaceship. Controlling Puggsy is by joystick and is clumsier than a drunk elephant on roller skates

He has lost his way and has stopped at another

reach the ancient city of Radontis to

The controls feel chunky and unresponsive and become very tedious. Gameplay involves your character picking up



the many objects that can be found and using them in some manner to solve the puzzles. Within the level there are switches, locks and teleports which can be activated (or deactivated) by throwing various objects at them. Throw keys at locks

to open things, for instance. Each object has its own "weight" modelled on real world aravity so, for example, holding a heavy object would stop Puggsy being blown around by a fan enabling him to walk easier. Objects can be stacked up to get to higher levels.

JUMPING

Puggsy can also hook objects anto platforms that can't be reached by jumping. As the objects act under gravity, some can float or bounce. Puggsy can make use of balloons which he floats on. Bonus points are awarded for any objects carried through to the

His speed and jump ability can be increased by picking up training shoes, and by using sun shades he is temporarily protected.

On the plus side, (yes there is one) the end-of-level guardians are huge and relatively appealing. The map screen is a nice touch. Puggsy can travel back and fro to all

the previous levels he's been to. Graphics are your usual nice, colourful trans thing, well drawn but they would hardly make you

gosp in amazement. The soundtracks are journ enough and cheerful which only makes it The game would be ideally suited to a younger games player but the

hardly rings true when you can sider that most of the kids now are demanding the latest and most bloodiest beat 'em-ups! A lot of effort has obviously game into this game especially in designing

the puzzles, but it really is nothing new Another platformer, which plads along at a snall pace, hardly up to Psygnosis's usual high

TINA HACKETT



fun, to coin a cliché There are some clever little puzzle elements to work out but they do really compensate for the blatan

> Price > 529.99 all ➤ No Size > 1 meg





nasty racoon who's stolen my space ship

Elite

rought to you by Archer Maclean, the same author behind the great Pool simulation of the same name, Jimmy White's Whirlwind Snooker aims to

The game allows one or two players to practise against each other, set up and perform trick shots, and compete against each other or four increas-



ul Noe

ke you

CETT

ingly challenging computer-controlled apparents up your shots as if in a real game. Things such as whether up should be used and even when to

chalk the cue must be decided. The game can be viewed from eight different ngles to enable you to view the game from behind the ball, or to view the entire table to plan your game and shots more accurately

This simulation plays and looks like the real thing. It adheres to the rules of the game and the balls obey the laws of physics to the letter

The game is very easy to control and should provide an excellent sim for both the expert and

Although an accurate sim, there's still time for a bit of humour such as the balls sticking their tengues out if you take too long to take a shot

A strategy space trading game with a touch of blast em-up thrown uses attempting to gain success and

You will encounter many planets on your travels which you will need to trade with to achieve success. Land on the space stations in order to trade with the planets. Trade drugs or sloves for higher profit but beware - you run the risk of the law tracking you down in

ner viger signs.

"Too start your adventure on the planet Low, use prices of goods and buy materials to trade with other planets. Trading prices from system to system will vary so plan your strategy well. Also aim to build up you recording from a Cabon Mill, with its needly public toors to a lighting form to be reduced with.

This is a massive game and will provide hours of play. It will provide an incredible challenge for even the most competent strategy ers. Elih is undoubledly a classic.

AWARD WINNERS GOLD EDITION

Empire have taken four old classics, bundled them into one package and released them at a baragin of a price. Who says life is cruel?

A great bargain of a compilation - and not a duff game in classics for a mere \$30. What me you want for your money? Developer > N/a

Disks > 6 Price > \$29.99 stall > N/a Size > 1 meg

Sensible Soccer

nd as if you thought this compilatio

the action and atmosphere of the real thing. Choose from competing in a friendly game, or take charge of your favourite dub or national team from all over Europe in a variety of cup and league competitions. Bring your friends in on the action too by playing head to head or competing The many actions available will help you gear

> length can be aftered as can the weather which can be seasonally adjusted and the sort of pitch surface you wish to play on.

are extremely responsive and move in the way you'd expect.

The clear presentation of the game and nice graphics are merely an added bonus to the wonderful TINA HACKETT

I was trying to think of an original caption for a football game hmm, impossible

Zool

Although it's yet another platformer is a great example of its genre and is extremely playable. The graphics are extremely active and the soundrocks (choose from four different ones from rock to zone) are excel

Ski, skate, shoot and jump your socks off in US Gold's simulation of the world's greatest winter sports spectacle

some of the leaders in producing top-hole sport simulations, so it comes as no surprise that they've beaten all their competitors to the Winter Olympics licence. The Winter Olympics will be over by the time you read this, but hey, you'll be able to re-live the whole event via vour delightful computer. The Olympics this year are being held in Norway's small town

of Lillehammer. According to the games will be both an international attitudes towards the Olympic ideal and movement. After festival and a sports extravaganza reflecting human achievement based on genuine values.

Winter Olympics (the game) also reflects human achievement based on genuine values, but involves an awful lot of jaystick waggling to boot! There are hine different sports to choose from which include ski jumping, downhill, giant slalom, bobsleigh speed skafing, luge and the biathlon

Up to four players can play Winter Olympics and once you've chosen a name and which country you want to represent you are plunged straight into the action. The first event is the bighlon and it's an essential part of the game because it's a link event between sports in the full Olympic

ogramme. The hiathlon, for those that don't know, is a



"souvenir brochure" that you get The official mascots for the XVII Olympic Winter Cames are free with the come, the Lilehommer Kirsten and Hakon and their task is to create positive

flip is Bob!

combined sport of cross-country skiing and rifle shooting. You waggle the joystick from left to right to gain speed when you're doing the cross-country section, you then have five shots with which you must hit the targets otherwise you get a one minute penalty for each one missed. The targets vary in size as you progress through the Olympics. Possibly the hardest event is the bobsleigh and

I've still not managed to get down the "run" without crashing. Maybe, I'm just rubbish at playing

Just one thing Who the bloom



Grab your gun and hit those target retend you're Lee Harvey Oswald! Oh yes!



nes (yeah it's more than likely! - Ed). The babsleigh is presented in two sections The first is viewed from the side and involves you getting your team into the sleigh. The second is a 3D section and is viewed from the driver's point

of view. The 3D section is quite good, but I've seen Although Winter Olympics is a multi-player you have to take it in turns to compete in the event

except for the speed skating when you can compete against each other. It is an elimination event, so if you get left at the back of the pack you're out. Like many of the

sports in US Gold's sports simulation speed skating is a joystick waggler. Apart from the subtle innuendo, I wish that there could be some way of getting rid of the wagaler because they do tend to weaken your joystick and, ahem, leave you with a sore wrist

But waggling does seem to be the best control method for this type of game, so until someone invents something better we'll just have to put up

I'm just skating (ahem) over the events in Winter Olympics, but as with most games of this genre, some are good events while others are bad Whether you want to buy Winter Olympics all

depends on how much you like winter sports. simulation it's not amazing, but if you love all things sporty at winter then you'll like US Gold sports sim. For the average Joe trying to survive as the street there are much better games available to spend your money on.



Aha. one of those gold medal ngies! I bet I could get a few quid for that down the pawn shop...





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The mission screen informs you of who you will have to blow into little barbecued pieces

normal circumstances a CD title hould command more space than we've granted it here. However, as you proceed further into the review it'll become quite apparent to you why we have resisted the

What you have in Seek and Destroy is basically a Desert Strike clone without the desert or the strikel Seek and Destroy is a fairly straightforward helicopter Gulf-'em-up.

Your overall mission is to take control of the Apache gunship, fly into enemy territory and teach them a jolly good lesson.

To help you achieve the unerwiable task of putting every Arab nation through virtual genocide, you have the normal, rather obvious armoury of

On board are a full range of machine guns and air-to-ground missiles, all of which can be put to great effect. By far the best weapon within your large arsenal is the Air Strike. This allows you to call up an immediate heavy missile strike. All you have to do is fly over the area you want flattening. press the button and get your chapper out of there. Five seconds later the whole area is totally torched in a most effective way.

In fact, by far the most impressive aspect of Seek and Destroy are the sound effects. Improved by the virtue of CD technology, the sound is excellent, from the whipping rotors of the Apache, through to the grind of the heavy machine-gun chewing through buildings.

Like Desert Strike, Seek and Destroy is viewed from an overhead perspective. Graphically, the earthbound views are pretty average and seem as though they were created for an A500, although the way the Apache's shadow casts its pixelled image on to the landscape below is particularly

well bandled.

At the final analysis Seek and Destroy isn't really that bad in its essence. It moves quite slickly and there's plenty of action within the structure of the

However, there aren't that many missions in total, and more disappointing is the lack of variety involved. For example, in the majority of cases you'll either be destroying other helicopters, or ground-based tanks and buildings

After the first couple of missions, Seek and Destroy soon becomes frustrating and a little dull Part of the reason is because of the gross lack of variety in the action and the enemy's reliance on It's not as if they vary too greatly, you just seem

to get more enemies on your screen at one time. and it becomes neigh-on impossible to co-ordinate To be honest I'm a little disappointed with Vision software. After the quite excellent Cybernetix and their cracking little platformer Woodie's World, Seek and Destroy is well below

Given the type of product Seek and Destroy is it might well have proved popular on the A500 and A600 on floppy drive, and did indeed make a brief appearance. But, as a practically full-priced it's extremely hard to justify.

SIMON CLAYS

Ooh, no. One of those over-arm Arab types has clipped my tail rotor with a lucky strike from his el-mounted Biro and blotting

Bedouin - you got it



justify a title of this nature on what is Commodore's flogof the U-bend on a CD32 title

quality. I'd probably want to flush

myself down offerwords





What delights does Tina the Easter Bunny have in store for you this month? Well, lots of yummy chocolatey-type goodies are lacking but what we do have are plenty of budgets reviewed for your deliberation

Another World Kixx XL • £14.99

Now here's a mystery I've been pondering over for quite a while. It concerns the fact that whenever another futuristic world or planet is portrayed in a computer game, it's always as a alcomy or dismal place to be.

I mean, nobody has ever shown images of future worlds being nice cheery places, where houses are made of no-calorie chocolate, or Saturday night television actually shows something intelligent.

But hey, I guess that wouldn't make for a very exciting plot for the various films, books and computer games that take up this futuristic theme, and Another World is just one of the same.

Gloom, doom, mystery and all things nestly combine to become this highly atmospheric adventure game and hey, does it work well. I was engrossed after merely seeing the story screen.

A young scientist, while experimenting with sub-atomic particles, has his laboratory

struck by lightning, teleporting him into another dimension.

It's a world completely different to earth, and you, taking an the role of scientist Lester

Charkin, must draw upon all your resources and intelligence to survive.

You must explore your new surroundings while avoiding, for instance, dangerous slug-type creatures with their instantaneous death bites, or deadly panthers. Sub-human creatures found in the

World will either help or hinder you...

Another World combines excellent graphics, panaramic back-drops and superb sound effects to make a stunning atmospheric game. You'd be one pint short of a boaze up to miss out on this



And here we have our famous tourist attraction, a local beauty spot it remains as serene and tranquil as always. Note the panoramic view and, err, deadly Panther

Eye of the Beholder Kixx XL · £16.99

Scored though I am of rule books thicker then War and Peace and whether I actually know the difference between Lowful Neutral or a Chaotic Good, I delved into the mystery world of Kixx XI's latest RPG-vr. Eye of the Beholder.

The ordinary between John is a supery based that City of Waterdage in TSP's Expension.

The action takes place in the sewers beneath the City of Waterdeep in TSR's Forgotten Realms game world. It is rumoured that evil lurks in these sewers, and it must be found and destroyed.

To begin you need to develop your party, choosing four characters all with various

chtbutes, strengths and weaknesses which can be alleved. Race, class, alignment and ability must be decided upon for all cherochers; these entibutes will have a marked impression on the outcome of the genne. The clorify set-out Adventure screen allows you to keep track of your toans, their curnest states and any objects they may possess. The 3D View Window enables you to see

the action. Movement is through the arrow icons and a compass shows your party's direction, and will help you to map the lower levels.

There are a vast rumber of spells which will help you on your quest such as Cloudkill,

a close range spell which billows a cloud of deadly vapour and can kill lesser monsters like leaches.

There seems to be a vast amount here to keep your average RPGer happy. The good graphics and easy controllability make this a

good example of its genre.

"Dem bones, dem hones, dem dry bones." Here is one of your character screens showing his inventory, and erm. a skeleton.

Don't forget to

perform your

hicle safety

Police Quest

Men in uriforms sounds like a good idea for a game to me, and Police Quest certainly isn't a disappointment. Storsky and Hutch it ain't (which is probably good because Storsky's dedgy haircut left a lot to be desired) but it is a pretty entertaining police

adventure game.

As a typical Sierra back-cataloguer it isn't exactly hat in the graphics and sound departments, but the idea is rather novel which makes for some unusual gameplay.

departments, but the size as rather novel which makes for some unusual gamepiay.

You start the game as a lawly police afficer (called Sonny Bond, hmml) and must
work your way up to the dizzy heights of going undercover to by and bust the notatious.

Death Angel and his gang, wanted for destardly crimes of murder, drug hafficking and

Roufine duties such as handling out tickets and attending briefings must be undertaken before you'll get to the top. Personal hygiene and keeping a smart uniform must become part of a police officer's daily routine. All procedures must be followed to the letter or else it's back to codet school for you!

Points are awarded for each puzzle or clue you can pick up on. Reading newspapers, clipboards and the like can provide vital clues so remember that, however insignificant something may seem, it may prove crucial.

something may seem, it may prove crucial.

Attention to detail within the game provides a realistic simulation of American police
life, as for as I can tell anyway, but having never been an American police officer I



wouldn't really know. Handouffing procedures, vehicle safety inspections and driving codes become an integral part of the game.

Commands can be typed in for your character and Police Quest can understand a wide variety of verbs so controlling the game is fairly simple.

The Restore Game function is a great help as it would become extremely frustrating to have be start from scrotch each time just

because you'd made a small mistake.

Although rather dated, Police Quest is a really playable game and makes a nice change to your usual adventure.





1. Fight pirates

B. On USS Enterprise

1, Hail Masada 2. Response 1, 1 and 1 3. Talk to Spock 4. Use computer 5. Search Masada 6. Use Uhura

7. Send prefix code: 293391-197736 8. Lower USS Enterprise's shields 9. Beam to Mosada

C. Transporter Room

1. Use medical tricorder on Transporter Chief

2. Take transmoarifier 3. Talk to Transporter Chief 4. Use Speck on transporter controls 5. Exit East door

D. Corridor 1. Use scientific tricorder on North door 2. Use scientific tricorder on junk 3. Get junk

4. Exit East door E. Brig 1. Use stun phasers on two guards 2. Use scientific tricorder on brig

force-field 3. Use scientific tricorder on brig controls 4. Use scientific tricorder on wires below brig controls

5. Use Speck on wires below brig 6. Use Spock on brig controls 7. Take wires below brig controls



1. Use stun or kill phaser on phaser welder

2. Use phaser welder on force field 3. Exit South G. Transporter Room

1. Use phaser elder on metal bits 2. Use transmagnifier bit on 3. Use transmagnifier with bit on transporter controls 4. Use wire from brig controls on transporter controls

5. Use Spock on transporter controls H. Masada Bridg 1. Talk to Elasi Cereth 2. Use response 1 3. Beam back to USS Enterprise



Beam aboard and let Gamer give you an intergalactic lesson on how to complete the first three episodes of Interplay's amazing strategy/adventure

STAR TREK 25th anniversary



A. Colony Buildings 1. Talk to Angevin 2. Use responses 1,1 and 1

3. Talk to Spock 4 Talk to McCov 5. Enter South-East building

B. Gathering Hall 1. Talk to Brother Stephen 2. Use medical tricorder on Brother Chub

C. Colony Buildings Exit North path

D. Klingon Field 1. Use stun phaser on three Klingons

2. Use scientific tricorder on Klings 3. Pick up Klingon hand in front of near est Klingon 4. Exit North cave mouth

E. Cave Mouth 1. Use medical tricorder on red berri 2. Take berries

> F. Klingon Field 1 Evit South

G. Colony Buildings
1. Enter South-East building H. Gathering Hall 1. Give berries to Brother Stephen

I. Colony Buildings 1. Enter North-East building

J. Brother Stephen's Study 1. Give berries to Brother Stephen 2. Use berries on molecular synthesize 5. Use Kirk on alass case

6. Use response 2 7. Read mineral specimens 8. Read meteorite 9. Read fossil shells 10. Read skull of small alien animal 11. Read twist of metal

12. Use response 6 13. Look at Brother Stephen's computer 15. Take skull 16. Take twist of metal

K. Colony Buildings

1. Enter South-East building

1. Use hypodytoxin on Brother Chub 2. Talk to Brothers Stephen. Roberts. Chub and Grisnosh 3. Use medical tricorder on Brothers Stephen, Roberts, Chub and Grisnash



M. Colony Buildings

N. Klingon Field

1. Exit North cave mouth

O. Cave Mouth

P. Cavern with door

2. Use medical tricorder on Brother

3. Use medical bag on Brother Kandrey

4. Talk to Brother Kandrey

6. Exit North tunnel

Q. Nauian Control Room

1. Use medical and scientific tricorders

2. Use scientific tricorder on Art

3. Use scientific tricorder on slide

4. Use Kirk on slide switches

5. Alian all three switches to middle

position

6. Use scientific tricorder on alien

7. Talk to alien

9. Use response 1

10. Use twist of metal on alien

There is a deadly virus rampaging through the ship and only Kirk and his boys can save the day

Love's Labour Jeopardise

A On USS Enterprise
1. Fight Romulan ship

B On USS Enterprise
1, Hail ARK7 station
2, Beam to ARK7

C. ARK7 Bridge

1. Use Spock on central computer

2. Use McCay on central computer

3. Use medical tricorder on room

4. Use medical tricorder on Spock

5. Use McCay on central computer

Read TLTDH gas
 Read arborus virus
 Read di hydragen dioxide
 Read ammoria
 Read nitrous oxide
 Read nitrous oxide

D. Synthesizer Lab

1. Use Kirk on left cabinet
2. Take anti-grav unit
3. Look at synthesizer
4. Look at synthesizer chamber

E. Research Lab

1. Exit North door



Use McCoy on the computer to try to gain that vital bit of information

F. Fusion Reactor Room

1. Take wrench
 2. Use Krik on right closet
 3. Use wrench on N2 tank valve
 4. Use ontri-grow unit on N2 tank
 5. Use wrench on lower panel on for left
 of computer console

7. Take insulation 8. Exit South G. Research Lab

Use insulation in distillator
 Use Kirk on freezer unit
 Take Orborus virus culture
 Etit North-West door

H. Synthesizer Lab

1. Use wrench on top of gas tanks

2. Use Spock on synthesizer controls

3. Take water consister

4. Use polybery/carbonate in synthesizer

red chamber
5. Use Spock on symfasizer controls
6. Tolar ITIDH gas consister
7. Use verench on top of gas tanks
8. Use ariting para unit on OZ tank
9. Use NZ Bank on vaccant solve
10. Use wrench on top of gas tanks
11. Use Spock on symfasizer controls
12. Tolar commoraic consister
12. Tolar commoraic consister

I. Research Lab

1. Look at viral accelerator

2. Use orbonus virus culture in viral

green chomber
4. Use McCoy on viral accelerator
5. Take archous zure from viral accelerator
grey chamber
6. Exit North-West door

J. Symfhesizer Lab
1. Use arborus aure in symfesizer red

accelerator grey chamber

3. Use ammonia conister in viral accelerator

chamber

2. Use Spock on synthesizer controls

3. Take orbanus cure serum

4. Use arbanus cure serum on Spock

5. Exit East door

K. Research Lab 1. Exit North door L. Fusion Reactor room

Use wrench on air vent
 Use TUTDH gas in air vent
 3. Exit South

 M. Research Lab

N. Crew Quarters
 Use orborus serum on Romulans
 Use water on Romulans

Use Kirk on ladder
 Research Lab
 Bit North-West door

P. Synthesizer Lab

1. Use wrench on top of gas tanks.

2. Use anti-grow unit on N2 tank.

3. Use O7 tank on vocart valve

4. Use wrench on top of gas tanks.

5. Use Spack on synthesizer control

6. Talks water consister

7. Exit faut door

Q. Research Lab

R Genesis Lab

1. Use arbarus cure serum on Romulan
Preax

2. Use water on Preax
3. Unite prisoners
4. Talk to Preax
5. Use response 1
6. Recomback to USS Enterprise

1) I born look til 155
Etroppia

It's worth picking up that wrench because no doubt it'll come in handy later on



In the transporter room and it's obviously Scotty's day off. Beam us down, err whoever you are...

WORK IN PROGRESS





ver the last two years Silmarils have ver the sost fine years. Sithnaris have irsen to a position of remarkably high stature in the arcane world of the role-playing genre. Based just de Paris, Silmaris have become one of the ng developers of high quality Tolkien esque columbrates.

Much of the success of the company is down to the Ishar titles, with their first-person 3D graphics and incredible depth and attention to

otens. Their aim has always been to create state-of-the-art software that, like its inspiration, is rich in dream-like images, colour, sound and plot. Following the fentestic success across Europe of Ishar's 1 and 2, the French outfit are close to pletion on the third title in the soco.

ENCOUNTERS

If you were an avid player of the previous encounters in the land of Kendaria, then you're in for a treat when Ishar 3 is released, as it includes

a whose nost of improvements.

The plot will once more send you back to Kendoria and the kingdom of Ishar. If you've played either of the other Ishar titles then you'll be more than familiar with the geography and the inhabitents of Ishar.

In Ishar 1, Legend of the Fortress, the peace and prosperity was threatened by Krogh, a rich and powerful Overlard who built the impenetrable fortress called Ishar. It was from the fortress that Krogh launched his bid to control the seven slands that go to make up the kingdom of

Following the defeat of Kragh, the fartress of Ishar become a centre for cultural and intellectual development, casting a radiance and wealth and

Ishar series is progressing dom. But, in Ishar 2, a new threat emerged to threaten the idyllic tranquility of Kendoria. Shandar, an evil wizard and a demonic deity all rolled into one, planned to use addictive mindcontrolling drugs to enslave the population of Kendoria and take control of the Fortress of

spell which would enable his energy and comevil, nasty piece of work, and also recall that to

achieve total success you had to destroy him.

The bad news is that despite your efforts in Ishar 2, Shandar is back. Shandar defied nature So the evil wizard is alive, kicking and sill filled with megalomaniac-style ideas to take to tall to a fine region. In Ishar 3 he finds a new placel form which is more destructive and male by securing a policy for the unlikely event of his destruction. He achieved this in the shape of a

lent to appose the forces of goodness.

Being the prudent type of psychopathic wail
be dictator, Shandar takes no chances a decides to occupy the biggest, nostiest cre ever to roam the mortal and ethereal plains. In an uncontrollable lust for power, he ch to reincarnate his presence in the body of gigantic black dragon, named Wohrate



It's nearly time to sharpen your kilt, tighten your shield and zip

up your sword again, as we take

a look at how the third in the

Ishar I is set to include some eminous fors

molgo

LIPS



sited cent



party researching some arcane myth in a library.

Something new to this new addition to the Ishar trilogy will be animated film sequences of events, which will add a whole extra dimension

or reality and atmosphere to the tifle.

With all these and more features included in Ishar 3, the game looks as though it could well become a benchmark adventure title, and set a new standard in first-person role-play

ming on the Amiga.

gaming on the Arriga.

Silmeris have always had a reputation for producing intelligent and visually stunning games. While we've yet to see the finished product, both the screenshots and early demos look set to give role players a very large, very involving dip into the world of Tolkien. But remember, too many jaunts into this fantasy world could become Hobbit-

ax is over 2,000 years older, and the lost nivor of the Black Dragon race. His story back to times when dragons were freused to fight battle

in the Mrite Context of the Context

capture this great prize, Shandar must per-fe reincarnation ceremony during the plan-conjunction of the two moons, the sun and

the planet Ishar. This is where you're set to come into the action. Taking the role of a party of adventurers, you must destroy the dragon before Shandar can perform the ritual which will

transform him into the most powerful entity on the face of the earth. According to Daze Marketing who handle the UK promotional activities of Silmarils, the key to success in strivings of Sitteerits, the key 16 success in Ishar 3 is time. Though you will not directly race ogginst the clock, you'll have to travel through various time portals which will lead you to varying historical zones in the development of

SIGNIFICANT

In order to achieve any significant progress you'll have to make sure your team appear at all the salient points in time, and affect history in the

correct manner.

The main overriding feeling you're left with after Ishars 1 and 2 is the attention to detail, occuracy and distinctive look that Silmarils games

Fans of, or indeed newcomers to, the Ishar titles will be pleased to hear that Silmanis are keen to maintain that image, and are packing the game full of enhancements to add even more

While it's too early to determine exactly what the final product will contain, this progressive French software company are boasting some fair-

One of the areas that they're paying extra attention to is character generation and selec In Ishar 3 you'll be able to select from over a 100 rent characters and assign your party with a le host of personality traits.

Also, like in many games of this genre, you'll be able to re-load teams you've used in Ishars 1

As well as the rich array of weapons your

dwarves and barbarians can yield, there'll be a wide vocabulary of spells to cast, conjure and recite at your enen While your not slaying and hocking your way around some forest or wilderness, there's a

whole host of indoor locations to hang your sword up in. These will vary from dank cove through to brightly lit inns and toverns.

through to brightly its unstand towers.

There are also a large number of other buildings which you'll be able to explore and map during play. So, rather then trainsing around swemps all day and night, you might find your





ilmarils





re in an eerie underworld, you'll encounter strange gaunt figures in feminine garb

The point-and-click icon controll will continue to make movement and combat light work April 1994 G



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The same specifications as it's big brother but designed around the 68030 processor. The R4000/030 comes with a Hard Drive, 1+1 RAM and WB 3.0.

(FOR 9+9 PLEASE ADD 669

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DESKTOP DYNAMITE PACK

The desktop Dynamike Pack contains 5 pieces of software written specifically for the RGA chipset, which includes DpaintRGA, WordworthRGA, Oscar and other with a total street value of over £300. (PLEASE RDD £40 FOR DTD PRCK)

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n the last few issues we have had an introductory look at programming intuition graphics with ARexx, enabling us to leave the bounds of the CLI and to write programs with a true Amiga look and feel. We will now look at a subject that is supposed to be exceptionally daunting, namely, interfacing with ARexx.

Before some readers run off, let me say that we will not be presenting reams of cryptic code here, but rather studying the basic principles involved (hopefully the code will be clear too).

Even users who never intend to write an interface in their lives will be able to gain an insight into ARexx's inner workings which will allow them to get the most out of their own favourite ARexx applications.

In fact, some of our first examples will be presented, not in C or Assembler, not even in Basic, but in ARexx isself This, I hope will make everything as clear as possible. Like so many other things in computer programming, our subject is not too had once you break it up into manageable bits.

By the time we reach the end of this study you will be able to add an ARexx interface to your own programs, either by designing it from scratch, or by grafting it on using one of the several available utilities.

To understand the ARexx interface we must first look at its basic building blocks. In a bare-bones ARexx system, there are three of them: First is the Interpreter (libs-rexxsyslib.library). As you probably already know, the interpreter is implemented as a

There are two advantages to this approach it makes from easy multitasking, since several Alexa programs running simultaneously can all share the same interpreter city doing that in Bask...) and certain of the mechanises used by the interpreter expectally those used for interpreter expectally those used for interprecess comminication — are available to the programmers a functions, so they don't have to be reinvented every time an interface is

However, since the interpreter is a library, it cannot be used on its own, but needs a process to call it up. This brings us to the second element, the Resident Process (Sussen@BexxMax).

(Syssyspen) (OCASOLES).

The resident process is the controller at the core of the system. It is launched with the RexxMast command (which regular ARCXX users will already have somewhere in their startup).

The resident process does two jobs: it opens a public port named REXX by which it may be accessed; and it keeps track of all global information about the ARexx sys-

tem – the number of ARexx programs running, the libraries that are available, and other information about ARexx resources. Once launched, the resident process remains available until it is specifically shut down.

All communication between ARexx units, regardless of its nature, is performed by ARexx messages sent to ARexx ports, and by the replies posted back at these ports, once the messages have been processed.

The details contained in the messages may determine the specific behaviour of the system, but there is absolutely no ARexx activity if there isn't a port and a message involved.

So, for instance, whenever you run an ARexx program, what you are actually doing is sending a message with the details of the program to the REXX port of the resident process. The process then loads up the program, oversees is interpretation, and returns the relevant code or result back to you.

The command launcher (Sys.Rexxc/xx) is the most com-

mon way to launch an individual ARexx program. The rx command sends the information about the program you want to run to the REXX port, as described above. It will also determine details like whether your program.

It will also determine details like whether your program is a file or a quoted string typed at the CLI, and receive any

Out o

messages returned from REXX port, printing their details at the console.

It is useful to remember that rx is not the only way of

It is useful to remember that rx is not the only way of launching an ARexx program. Most applications programs with advanced ARexx interfaces allow you to launch ARexx scripts without leaving the application environment. There are also third-party Shells that can launch ARexx.

programs without ix, and even some rx clones. Of course, you can also launch a program from within another ARexx program simply by giving its name on a line.

ARexx treats all unrecognised lines as external com-

ARexx treats all unrecognised lines as externa commands and sends them off to the current port, which is REXX by default. By now you should be able to see clearly that all the above cases are equivalent—all they do is send the detail

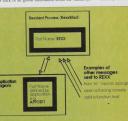
of the ARexx program we want to run to the resident process!

We have said that every applica-

tion program with an ARexx interface, must have (at least) one port to receive and reply to ARexx messages. The name of the port is selected

by the application. Each application obviously also has its own set of meaningful instructions to which it can respond. Such an application, with a port and a set of instructions, is officially called an ARexx host.

Suppose we want a host application to do something automatically, such as getting a drawing program to draw a line, a text editor to perform a search or formatting operation, a communications program to scan the



data from the modem, a test utility to beep, or whatever...

In order to make the host perform the desired action, we have to make sure that a relevant ARexx message gets to the host's port (we will see how to do this later).

This message will contain the instruction we wish to send, any extra arguments, as well as certain other details, which we will look at soon. Once the host receives the message, it is responsible for extracting the relevant information, processing it, and sending back the return code and any results.

By now it should be clear that the resident process itself is a host. We could say that there are two broad cases of ARexx messages travelling around the Amiga environment.

Firstly, there are those messages which are going to the REXX port; these in turn may either be launching programs, or otherwise acting on the resident process. Secondly, we have those messages

At this point, we should make it clear that ARexx supports two different types of host, known as command hosts and function

Although they both obey all the rules that we have outlined above, they differ in the way they are called from an ARexx program; they also differ in the way they receive any arguments and

When adding an ARexx interface, we must first decide which

Even though the two types may within ARexx, they are very similar in their inner structure. All that is involved is a port and a mechanism to get and process the message. In fact, there is no reason why a host could not be both a command host and a function host.

The differences lie in the contents of the ARexx messages, rather than in the ports. The ARexx message is a 128-byte structure that has

These tell us what type of message it is, what instruction it represents, what arguments it may have, whether it wants a reply, and much more. It is (indirectly) possible to get all the information about the current state of the ARexx system

from any single message When designing an interface for an ARexx host, the important thing



your interface

one to use. Each has its own advantages and disadvantages

port's name within the ARexx program (using the ADDRESS It is the ARexx programmer's responsibility to make sure it is set

correctly, although some applications may set it automatically. Commands sent to a command host are all in the form of a single string, and any arguments are separated by blank spaces. For

ADDRESS 'PortName' 'CommandName' Argument! Argument? Argument3

There is no limit to the number of arguments, and the whole command string may be up to 64k long. Results from Command hosts have to be requested specifically by setting OPTIONS RESULTS instruction and checking the special variable called RESULT. Command hosts are the more common, and in some ways Functions hosts' ports do not have to be specified, since they

add themselves to the ARexx system as soon as they are launched (by sending a special message to the REXX port of the resident From then on all the functions defined in the host, are available as if they were part of ARexx. When searching for a function, the system follows the standard order of functions defined in the pro-

gram itself: built-in ARexx functions: libraries and function hosts: and external programs. One of the problems with this system is that all function names are treated as global by the resident process, so you have to make sure that your function host is not subject to name clashes. Host functions are called just like regular functions. For instance:

FuncRes = Hostfunc(Argument), Argument2, Argument3)

There is a limit of 15 arguments, although each one may be up to 64k long. You are more likely to use function hosts when you want results returned more efficiently.

is how you recognise and treat incoming messages. Some of this work is straightforward, and some less so, but there is nothing really difficult

Figure II shows what the message structure looks like in C; note that the name of each field begins with "rm_"

Don't panic if you don't understand the C notation. Next time we will explain these fields more fully, and also write a small program to demonstrate their use - without using any C.

We will also see how the system allows you to mix pure ARexx code with "host code" by passing messages back and forth. We have already given some hints on this today. We will also be including a small utility that monitors messages

sent to the REXX port - a great help for visualising what is going on. See you then.

struct RexxMso (

struct Message ra_node; /* Identifies message as valid Exec message */ aPTR rm_TaskBlock;

APTR rm_LibBase; I fall on Artise.

/* What kind of message is it! */ LONG J* Main result (return) code of message */

LONG rm_Result2;

/* an array of 16 slots for the main instruction

and any function arguments */ struct MagPort * rm PassPort; /* pointer to another port explained later */

STRPTR ra_Commiddr;

STRPTR rm_FileEnt; /* ---- */
LONG rm_Stdin; /* Explained */
LONG rm_Stdout; /* Later */
LONG rm_swait; /* ---- */

Figure II

All sorts of information can be sent from program to program if you write an ARexx interface to do it. Alex Gian demystifies the whole subject

i's in the can. It's a wrap. In other words, it's finished. Actors and crew leave, with anticipation building for the final result. It's all gone well and the footage looks promising. Reaching for the Yellow Pages, your fingers do the walking to the Video Services section, the words editing suite hanging in

your mind. A mass of adverts greet you, each trying to grab your attention. Picking up the phone, you systematically dial each one. The more quotes you receive, the stronger the urge to slam down the phone and call it a day.

"It'll cost £400", "£230", "£250 an hour with the Avid system, sir." Feeling numb, you replace the phone and start to reconsider your future career.

Post production is the next stage to filmatic perfection where the video can be made or broken by the pressing of a few editing buttons. As you probably discovered for yourself before the shoot started, professional editing suites cost a rather healthy amount of

A far wiser idea is to invest in your own editing system to be used in conjunction with your Amiga - a very versatile machine ideal for video use because of cheap genlocks and all the accessories available. Check out the two editing suites reviewed elsewhere in this guide for further details

Once over this hurdle, the job of finishing the film can begin. First of all it's advisable to sit down with all the rushes and logging sheets and go through each tape. Choose the takes you want to use for each shot and mark them down on the logging sheets.

This saves you time while editing and if you ever do decide to go for the full professional suite, it'll save money as well. The editing process is split into three significant stages - the

rough cut, the second cut and the final cut. Imagine an out-offocus shot and through the editing the image slowly comes into shape to create the final picture. The rough cut is simply an opportunity to grab the shots that

you want to use and slap them down on tape in the right order. No attention needs to be given to the exact timing of the cuts at this stage The main concern is to simply see it in the order you initially think is right which may highlight any changes that need to be made. Remember, as with the shoot, you don't have to stick to

the storyboard rigidly - if certain shots look better in another place, try it now and experiment a little. For the second cut, start to tighten up the shots and clip away at the frames. You'll be surprised even after this stage that you'll

spot places where the video can be tightened further. The final cut is where everything comes together, all the mistakes made right and corners cut as finely as possible. Then music is laid and the titles put in their beginning and end positions. One of the main principles of editing is to always cut on the action whether it is physically or dialogue based to carry the

Essential reading

On Directing Film • David Mamet Faber and Faber €6.99

An excellent, readable book that takes the reader through the basic principles of filmic storytelling, from one of the world's most acclaimed movie and theatre directors.

British Film Institute Film And Television Handbook £14.95

For videomakers who want to go a stage further, this encyclopaedia of up-to-date names and addresses of production companies, competitions and much more is a must- purchase.



Secondly, it's necessary for one piece of action/shot to cut together accurately with the next. The tendency among beginners is to try and exactly match the point which is cut from with the proceeding shot.

For example, imagine a fist pulling back to hit someone and just as it launches forward we cut to it from a different position as it makes impact on the victims nose. For the best method in most cases for getting the perfect edit, cut as the fist has started to launch.

SECOND IMAGE

Then, instead of trying to find the exact point that matches in both shots, advance the second image by a few frames past the point. When cut together, you'll see that this slightest of 'jump' cuts makes the action flow better and more fluently.

If the question of choosing between good acting but dodgy camera work and vice versa should arise, go for the acting - a solid performance can carry a film more than fancy shots One element that can be often overlooked is sound. There The En

The End The End The End

It's make

The editing suites

Buying any video equipment is going to set you back ample lumps of cash but fortunately the Amica a very video friendly machine. Listed below are two examples of the sort of packages that can be bought to help with editing your masterpiece.

Edit Mate

Supplier: Meridian Distribution Phone: 081-543 3500 Price: £199.95

An ideal starting block for the amateur. Edit Mate is a simple but effective editing tool. By reading your video recorder's tape counters, Edit Mate

allows the user to simply choose the IN and OU points of the edit and let the machine do the resi The main downside is the frame accuracy

three to five frames out is the average miss rate This may not sound like much but it renders th system pretty much redundant for professional work where precision is absolutely necessary.



Amiga Computing April 1994

Posters, titles and video cases

When the editing has finally been finished, it's important to make the packaging and credits as polished as the contents of the tape. Investing in a colour printer and a DTP pack-ge such as PagoStream 2.2 (v3 to be released soon) gives the opportunity to produce some (on-noth-viden covers and mini posters.

sheet titles or for some hard-earned cash, Big Alternative Scroller it (around £80) or the Scale Home Video Titler (around £80). As you've probably gathered by now, the busi-ness of video creation is an expensive one even at the lower end of the market. Angle Computing's advice is to keep reading each month for information on the latest develop-ments, to say in the full picture!

are only two channels for music, dialogue and other effects so plan where and what you use carefully beforehand. If you're in a lucky enough position to have a sound mixer, then tracks can be mixed together and life becomes a whole lot easier

Once the final cut is done, show it to the cast and crew first and then to everyone you know, enter it into national and international competitions, get it certified by the BBFC and ask your local video store to stock it as a free rental vid for the interested punter, get interviews with local magazines and newspapers, start a showreel and look for a break in the industry - the choices are

Above all, enjoy the success created through your hard work, learn from mistakes made and keeping shooting videos. Good



or break time

few videos, this may well be the system for you - to find out if you actually enjoy the experience before ploughing money into Videopilot.

Videopilot

Supplier: To be anounced soon Price: approx £1,000

For the budding professional videomaker, Videopilot is an excellent system for achieving solid results. While the cost may bring tears to your eyes, the machine is worthy of the price

Coming in a smartly designed casing with full tape manipulation facilities, it also boasts a highly useful shuttle facility which enables the user to flick through the frames on at a time for optimum accuracy.

Up to four VCRs can be attached to the unit and once hooked up, can be operated solely via the Amiga and Videopilot. The software that comes with the package is simple to use and of a high standard and includes a basic titling system as the icing on the cake.

Videopilot is also compatible with the different timecode systems found on VCRs. When taping, many video recorders lay down a running time on the tape as they record. These come in various formats - VITC (Panasonic), RCTC (Sony) and LTC (used by many home videos and camcorders).

While having many features to tempt the potential buyer, there are downsides. The Videopilot cannot perform cross fading between two images and can't even achieve a fade to black. To lay your hands on these extra capabilities will require another handout for the appropriate hardware.

The other problem is that some recorders don't lay time codes and therefore editing with tapes used by them are



page special, Adam Phillips winds up with the final reel of the video making story

In this double-

useless because the editing machine has nothing to read and align with.

There are two solutions to this problem - either copy the tape on another machine that does lay down a time code which leads to a loss in generation (the quality of the picture suffers) or have your video recorders modified so that it becomes LTC-compatible. This will cost you £100 for the conversion and make any warranty that you have redundant.

If this all sounds like technical jargon then make sure that you contact the dealers to get solid advice about your partic-

Overall, the financial sacrifice is worth the end results with editing accuracy being between one and three frames. this is the best system that money can buy within the price

range

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he Amiga collects Midi data via the serial port but to get the right electronic and cabling connections you have to use something called a Midi interface, the cheapest of which as you'll probably know cost around £20 and are available from many Amiga dealers.

With simple systems you take one Midi lead from the Midi Out terminal of the synthesizer (or whatever it is that you are using) and connect it to the Midi In terminal on the

Assuming you also want to play back your recording, you then need to take a second lead from the Midi Out terminal of the interface and connect it to the Midi In terminal on the synthesizer.

Recording is simple. You just load your sequencer program, set it into record mode (every sequencer has a different way of doing this) and play. Whenever you touch the keyboard, or alter a control, your synthesizer will transmit digital messages (Midi messages) - and it is these messages which the sequencer will store.

Songs can be created piece by piece using multiple sequencer tracks and by selecting the sequencer's play option (again all sequencers have different ways of doing this) copies of all of the recorded messages can be sent back to the synthesizer. The result? The synthesizer will use that Midi data to recreate everything

It is also possible to build Midi systems that contain many more instruments (extra synthesizers, drum machines and so on) and up to 16 different units can be linked together on a conventional system.

SELECTIVE

This is because Midi recognises the existence of 16 separate channels and certain messages, called channel messages, contain a channel number embedded within them. Each piece of equipment can therefore be selective about the messages they respond to.

It's a bit like someone writing a letter to you, sticking it in an addressed envelope and posting it. The letter, along with a great many others, gets moved around the postal system but the contents are essentially ignored until the letter arrives at your door.

You know the letter is for you because it has got your name and address on it - a Midi unit will know when a suitable channel message arrives because it will have a channel number identical to the channel number the unit has been set up to respond to.

This selectivity means that, in theory at least, it is possible to have say your Amiga sequencer, a dozen synthesizers, plus a few drum machines and sound effect units, all linked together (via their Midi In and Midi Thru ports) using what is effectively a giant Midi cable loop. I say in theory because there's a snag in that every time a message passes through a piece of Midi equipment a delays are eliminated so there's less chance of any communications problems arising.

Philip Rees specialise in these types of units and now provide an extensive range of boxes. The smallest device offered provides three Midi Out terminals, it's called the V3 and is battery driven. Further up the scale comes the mains powered V10 which has its own built-in transformer/power supply and drives ten Midi Out terminals.

There's not a lot you can say about Midi Thru boxes themselves, other than the fact that they work. Basically you plug them in and forget about them, it's as simple as that, The same company also produce many more specialised units for merging and rout-



MUSIC

The Midi jungle

ing Midi signals. Even merging two streams of incoming Midi data into one is not quite as simple as it might seem but Philip Rees's latest 3M merging device can actually combine up to three input streams

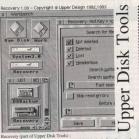
Midi line driver (MLD) units that can support Midi links of up to one kilometre (the normal cable length limit is about 15 metres) are also available

Why would you need to use such long cable lengths? Well. unless you use Midi professionally you wouldn't but these gadgets do get used by live bands, in recording studio control rooms, theatres, and in other situations where the sequencer equipment has to be situated a long way from the actual Midi gear being controlled.

You never know - the musicians among you now happily building home recording studios might also find that MLD units Confused about channels and Midi equipment links? Paul Overaa explains what's what



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13p-25p





SALTER

he email boxes have been fair buzzing themselves off the wall this month, and so I thought Ed take another opportunity to check out the mail I've been getting electronically

If you want to send me some email then feel free, but do try not to clog up the airwayes with "hello. I just thought I say hello as I've got nothing better to do. blah blah waffle". Think about email as if it were a letter or a phone call.

Introduce yourself briefly, are you a reader, what computer you use mainly, and then for goodness sake get to the point.

I'm getting tired of huge messages about all the computers that you've ever owned, what you mate said about me the other day

This is a waste of bandwidth, not to mention my time. If your

email is bigger than a screen's-worth of text, then most people's eves start to glaze over unless it's really very interesting. Don't also cross-post huge documents from other sources.

Send them on disk if you must. Right, that's the comms style guide over with, let's dive into some post. Richard Borrett < R.Borrett@herts.ac.uk> savs:

"I have just started to use the computer systems at the University of Hertfordshire and currently I am just playing around with the system, albeit carefully. I just happen to write to you because you happen to work for my favourite computer magazine. Amiga Computing and you are the only address I have outside Hatfield.

using the system. Next is Christopher Bridge <C.K.Bridge@mcs.salford.ac.uk> who wants to know

"At Salford University all the students are given the use of Internet and FTP like most lanet Sites. Mainly I am striving to get useful ftp and exciting Internet numbers or addresses. Useful, being for my Amiga obviously

"What I am looking for is a good site to get GIFs/BMPs/PCX, New Utilities, New

Music Modules and also one with a simple file structure so that I don't have to spend half my time roaming around. "I have got several hundred addresses

from an Ptp site but I don't have the time to go through them finding the best as I go. (A lot of essays to do you know!) "A good site which I do know is

<grind.isca.uiowa.edu>. Do you know of University to call up an Amiga-specific



COMMS

Net surfing

"I am currently using the FTP system, and I am wondering whether I can use direct phone numbers to contact various bulletin boards. I appreciate that you may be busy, and sending messages is expensive, but a reply would be most helpful."

Well, replying costs virtually nothing most of the time, so I'm happy to talk to you about BBS. You can't dial up any external BBS, unless of course you have your own Amiga, phoneline and

Unless a BBS is part of a network, like Fidonet, you generally have no way in from the outside, and even if you did it wouldn't be the same as logging on.

Some BBSs like CIX allow you to log on from external systems by TELNET, but most systems which allow this charge you for bulletin board, ie one run on an Amiga? I think the answer is obviously no but you've got to try 'What is the average weekly cost of your phone bill? All the

magazines I read only tell you about the price of the modem, the best ones to buy etc. but none answer the most important question that of phone bill costs. What if you're on the modem and someone is trying to call your house?

As far as good sites, there are literally thousands. I use the US sites <wuarchive.wustl.edu> and <wcarchive.cdrom.com> a lot.

Most of these I picked up the addresses for from recommendations from other Net users. A little bit of detective work, you see, a good skill to develop if you want to be a really useful Net

All these sites have EXTENSIVE files from Aminet and other Amiga related stuff, as well as lots of other cool stuff. You might also like to try Imperial College, on <ftp.doc.ic.ac.uk> as they also carry a lot of useful stuff

Second question, ves you can dial up the Amiga BBS with your PC. You can even download programs but of course you have to transfer them to the Amiga before you can run them.

Weekly costs for my phone bill are greatly reduced since 1 got a 14.400 baud modem, and besides I work from home and so my phone bills are about £100 a month anyway, whether I use the modem or not. Off-line readers are a boon if you can get one for systems

that you use. They reduce on-line time to the minimum. If you are using the modem and someone calls your house it will give an engaged tone the same as if you were talking on the

The phone doesn't distinguish between speech and data, as they are both sounds being sent down the line. Unless you've got multiple lines you will be holding up the phone whenever you use the modem.

Comms nut Phil South takes the plunge and teachers netters how to surf



but none are more diverse than thos on the Otis system. Artists contribute to the system from all over the world, and the range of works goes from the sublime to the positively stupid

Write stuff

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rogramming in Amos isn't so much a bit of coding, more graphics and sound, and crack your first bit of maths for collision detection, you're off. Nothing can stand in your way. I recently took delivery of a mail sack from the AC office.

Wow. All those bits of paper and disks, all of them either saying what do I do from here with this buggy bit of code that I'm currently banging my head on, or look at what I've done, isn't it brilliant? The two groups really ought to get together, I think. Someone who belongs to the latter category is most definitely

one Steve Bennett, who sent me a number of excellent routines for you to see, some of which I've included in this issue. Steve has grasped a fundamental truth about Amos. It's the

computer programming language for people with imagination, in the same way that C is the language for people with calculators hard wired to their foreheads, and assembly is the language for people who if you look closely you can see little 0s and 1s in the pupils of their eyes.

Steve has some very useful routines that he uses and he's given me permission to reprint some of them here. The first is a way of doing something in Amos Classic that you formerly could

As Steve said in his letter: "One of the few things that I like about Pro is the way in which you can create outline text, which I think adds a lot to the look of buttons, etc.

'I was thinking if it would be easy to create the same effect using Classic. As it turned out, it is very easy to do ... ":

```
Rem Amos Outline Test Routing
Box 100,100 To 200,115
 Polyline 100,115 To 100,100 To 200,100
 _OUT_EERICA,5,0,00,00; single outline left section 2

_OUT_EERICA,5,0,00,00; first 's Easier To be Than I Thought'l

_OUT_EERICA,5,0,00,80,71t would be using Amos Classic'll

Procedure_OUT_EERICA,0,0,1,7,7XTS1

& writing 0
```

Next a couple of really cool utility programs which check the state of your two most valuable peripherals, your printer:

Res Check Printer Status If(PS="SFF") or(PS="SFB") Then Print "Paper Is Out"

and your disk drives:

Rem Check Disk Drive Status Reserve As Work 4.36 : Rem * bank for disk status check *

If PERO Then Print "bisk Is Write Protected"

If P=81 Then Print "Validating Disk"
If P=82 Then Print "Disk Is Ready To Save Bata Onto" Procedure _CHECK_DRIVE[DES]

And lastly, a routine which gives you multiple bobs whizzing

left right and centre all over the screen:

Ren By Steve Bennett

NUMBER-1 : Rem ** This is the Bob Image which is

T1=-180 : OFFSET=180

for 8+1 To 50 : For T=4 To 0 Step -1 : Wait Vol : Screen To Front T : Next T : Next R

Paste Bob T1-20, (Cos(T1+20)*OFFSET+120), NUMBER \$ET-30 : Add NUMBER,1,1 To 5 : End It





Routine stuff

I particularly like the sine wave motion of the bobs as they move across the screen. Can you think of a way of making the bobs move further apart and have their own sine wave motion as they move along the sine wave path? A sort of wiggle within a wiggle! Try it and see, and why not send in your best ideas?

Phil South exploits his connections to bring you some of the very best Amos routines

Too big to print!

Now as you can see from the above, Steven is a very good Amos coder, which is why - I'll come clean - he's a constant contributor to Totally Amos, and why he's produced Understanding Amos 2, his own book-on-a-disk

This program shows you how to do certain basic things like using joysticks, bobs, the mouse, and it's available from all your usual Amos disk dealers. Get it now and complete your Amos disk tutorial

collection. It answers all the most frequently asked questions about Amos. Steve has also written a utility program to create Zones, as I asked in a previous edition of AC. Even though this is too big to print in the magazine, I'll endeavour to put it on a forthcoming CoverDisk, along with the source code of that and some of Steve's larger and more impressive code. Well done, Steve, and thanks again for letting us see this great work.

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he keeps telling me I'm becoming an ill-tempered old so-and-so. Enough of the old, I growl. Hurling abuse at the poor defenceless monitor is the cause of her accusations, but I do have good reason. Oh yes I do!

Like anyone who uses their hard-earned money to buy software, when I discover this software isn't all it should be I get just a mite upset. And ropy outline fonts are no exception.

I suppose I shouldn't complain, as you do get what you pay I've bought a shareware font, got it home, installed it, and when I've gone to use it I've found the spacing between the characters is all up the creek. Or it's missing some characters. Or it's just plain knackered. Not the sort of font you want for

producing professional looking documents! But I have a secret weapon to sort out these wretched critters, an outline font editor called TypeSmith, Armed with TypeSmith I can quickly make corrections to the font and then get back to what I was doing. I have found this to be more

done anything wrong. Yet. You, too, will no doubt have taken advantage of the wide variety of PD and shareware fonts. Ah, but there's nothing like rolling your own. Or, when a font doesn't look right, having

After having it at my beck and call for more than a year now, I've grown to depend on it being there.

CONVERTING

TypeSmith's uses are manifold. The obvious use is for converting between font formats. If you own PageStream you will have probably bought a load of PostScript fonts for it. But Buy a load more in that format? Nah, TypeSmith will convert

You can also convert Compugraphic to Compugraphic. Confused? Well, say you have both ProPage and Wordworth and you've bought a volume or two of Digita's Compugraphic fonts to use in Wordworth.

Wordworth, you decide you want to use them in ProPage, but you can't because ProPage uses a slightly different format. TypeSmith to the rescue

TypeSmith will also enable you to create bitmap fonts from PostScript or Compugraphic ones - useful for creating fonts for use in programs that don't support outlines, like older versions

fonts for PageStream. If you've used PageStream with PostScript fonts you will know how long it takes to display them, but PageStream can also make use of the ABF, the bitmap equivalent of a PostScript font, which it can display much. much faster. TypeSmith does it again.

But enough of converting fonts. How about we get a little bit



PUBLISHING

here you chickens! I'm not talking about painstakingly designing a whole new typeface, I'm talking about special purpose

For example I recently need some fancy capitals in Art Expression, save each letter as a DR2D drawing and then import these into TypeSmith, where I was able to add some finishing touches.

There's more. Reading through magazines you may notice selective use of symbols - things like arrowheads, end of symbols, and many others. OK, there are a it's so easy, why not draw your own?

publishing work and will be like hidden



Typecast

signatures. Why use what everyone else is using? Be original! lust be sure to keep the symbols very simple and no-one need

Logos are another example of a special purpose font. You might for instance have 15 different clients who will all have different logos. Using TypeSmith these can be placed together in a single font. No having to go looking for them all over the place, all there in the one font, just a single keypress

If you find drawing on the screen a little difficult you can take the easier route of drawing something on paper, scanning it at a high resolution to get a large bitmap of it, and then use

Now. I don't generally recommend auto-tracing as it can make a right cock-up of things at times, and I'm not just referring to TypeSmith's auto-trace feature but any auto-trace program. However I have been known in moments of desperation to use auto-trace to get things like signatures from paper to font.

No doubt there are a whole host of other uses for TypeSmith. Like any drawing or painting program, after you become experienced at operating it, the only limit is your imagination. I wonder sometimes how I ever did without TypeSmith

Whether it's dot-todot or point-topoint. Ben Pointer puts you in the font editing picture



TypeSmith is hat you need to patch up those ropy fonts, like this one where the spacing has

By using a drawin program like Art Expression you can create a series of fancy symbols and then import them into TypeSmith to create a fontful of

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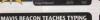
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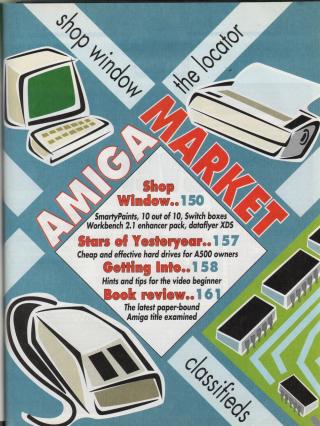


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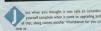
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Workbench 2.1 upgrade ier: First Computer C Phone: 0532 319444 ice: £50/£60 with Kickstart ROM



I have a number of Amigas, and I don't know about you, but I can't really be bothered to upgrade them all the time to the ultimate spec. Most of the machines I have are WB2 machines. although one is still 1.2! I do have a 1.3 chip lying about but you know I just can't seem to find the time to change it, and besides I'm kind of nostalgic for the old beast.

Now it happens that I already know a little bit about Workbench 2.1, and that is because I have a book on WB 3.0. the OS which you find in your common or garden A1200 or A4000. You see the simple fact is that 2.1 is 3.0 without all the frilly little AGA bits, which as a non-AGA man I find a tantalising concept



Inside the huge box you get a lot of packing, five floppies and four books. The floppies are Install, Workbench, Fonts, Locale, and Extras, and these are all spooled onto your hard drive (which is a requirement for this version) using the Workbench Installer program.

Simply run the Install program from the icon on the Install disk and the rest is automatic. If you have Workbench 2.04 installed on your machine the system will overwrite it and install the new OS over the top of it.

Sadly this OS will only work if you have a WB 2.04 ROM in your Amiga. If your machine is a 3000, 500 Plus or 600 then you have this already (if you buy an A600 now it should have 2.1 in

ir, so ask before you buy). If your machine is an old A500 or A2000 then chances are you are running the old 1.3 ROMs and you'll have to buy a kit which has the ROM in it as well. The books are top notch, and









Commodore's official Workbench 2.1 upgrade, promising WB3.0 facilities to 2.04 users, is finally available

for Commodore they are really quite well produced and readable. There is a book on Workbench 2.1, one on AmigaDOS, one on using ARexx, and one on Amiga hard drives, don't ask me why.

A change worth noting is that ARexx is now completely part of the system, and rightly so as a lot of programs now assume that you have it installed. Also free with this revision is CrossDOS, which is now bolted onto the system. All you have to do to fit PC format

disk readability is drag the PC disk icons from the Storage drawer into the Devs/DOSdrivers drawer Each time you insert a disk you will get the choice to look at it as either a PC or Amiga disk through both Workbench

and Shell. The Locale system is also included, which sets the language and time zones for your system. Printer support now also includes PostScript, which will be a welcome bonus to those people who already use laser printers for DTP.

Is it the bee's knees? Well yes, if a little late for most people. The extra features are certainly worth the money, although you might not notice a lot of functional difference if you are already used to 2.04, apart from those few little wid-

sets to which 3.0 users are accustomed. You can't have 2.1 if you don't have the Kickstart 2 ROMs. but this is also the first WB not to work on anything less than a hard drive. It's too big. Sign of the times I guess.

Some of us like to have the latest thing, that's a fact, and if you do then this is it. Operating system as fashion statement? Whatever next?

PHIL SOUTH







10 out of 10

Dinosaurs and Junior Essentials education programs Supplier: 10 out of 10 Educational Systems

Though producing a range of educational packages which lag behind others in terms of graphics and sound quality, 10 out of 10 have always released software which is well targeted and educationally focused. The two latest releases go along with this general trend.

lunior Essentials is the better of the two and covers a wide range of subjects through the use of simple games. Spelling, grammar, arithmetic, and science are covered, as are history. geography, French, and telling time.

Aimed at the 5 to 11 years age group, the two-disk set comprises of six games dealing with 36 National Curriculum attainment targets, progress in which is automatically recorded on the usual 10 out of 10 progress chart. Children are awarded one or two stars depending on their success, and up to 64 can be monitored at once.

The games themselves are well thought out, a mixture of arrade-type and more sedate point-and-click exercises. Probably the best is Break Up, an Arkanoid clone in which the pupil shoots away the bricks around a variety of answers to a question before hitting the correct answer and claiming the points. In most games.

a timer can be selected to add a bit of spice, and as any one of the curriculum subjects can be the object of each game there should be enough variety to keep young kids happy for some time. High score tables and an element of customisation provide incentive if a clip round the ear won't keep them at the

Dinosaurs is a slightly weaker package, though its theme should ensure that the tyrannosaurus-obsessed youngsters in the post-Jurossic Park period are at least interested in the subject matter.

Consisting of six games and constructed in the same style as Junior Essentials, Dinosaurs benefits from the high score tables, progress chart, and customisation of its stablemate, but the approach it takes can sometimes be a little overambitious.

If a magazine reviewer can be confused by a question which asks "Which dinosaur's name means ...!" then a six-year-old certainly can (though we shouldn't make too many assumptions about reviewer intelligence).

In other ways, though, Dinosaurs makes up for this and completing the six games should result in a child who knows enough to bore the rest of the family silly when they watch Jurassic Park on

The combination of direct multiple choice questions and games which offer a series of clues about a particular dinosaur species means that the child can bring knowledge gained from one same to bear on the next. Despite the narow subject matter, this sort of fact finding keeps the interest level reasonably high.

Over the course of this program, a child should learn which dinosaurs were carnivorous and which were herbivores, the relative sizes of the different species, attack methods, and so on.

The games used are less arcade-oriented than those in Junior Essentials, but the Spare Ribs, T-Rex, and Lost Island sections should provide monster fun for your own little



ere about big lizards

monsters. With the current craze for dinosaurs still rampant, this package could be a gentle child-friendly introduction to the notion of education through the Amiga, and as such it is recommended.

Dinosaurs fits well with the sort of general knowledge projects carried out in Junior Schools all over the country and can either stand on its own or as a package to return to when little Tarquin starts to tire of the three Rs.

STEVIE KENNEDY

Workbench through the years

2.0 The Amiga 3000 broke the mould. We had seen the future, and it was light crev and

2.04 The ROMs were cast in stone. A proper working A3000, and the A500 Plus. Then

of people who already have Amigas. All the tricky technical stuff of WB 3 without all the



Data switch boxes

Parallel, serial, and monitor switch boxes for all er: Lightwaye Ltd e: 051-650 5003

Switch boxes are unglamorous, unexciting, and go almost unnoticed by most users, but they are as essential as a mouse to many productivity setups.

As the peripherals start to pile up, the situation will soon arise where more than one commonly used piece of kit demand to use the same port. Scanners which use the parallel port are the usual

culprits, competing as they do with printers, and anything which tries to hog the serial port, such as a dongle for an expensive piece of software, will clash with a modern

Data switch boxes come in all sizes for all sorts of ports. and the range distributed by Lightwave covers just about everything. The units we looked at included the serial. parallel, and monitor boxes, and straight away the mo switcher came in handy as a switch between the normal Amiga display and the Retina 24-bit card's output.

Normally, one would have to either use two n (one attached to the Amiga, the other to the Retina's RGB port), or the monitor swapped over every time an image was displayed on the Retina. With the switcher box, you just connect the monitor to the box and use a couple of RGB leads to connect the box to the two video ports

Hey presto, all you have to do is flick a switch to view any Retina image. Lovely. The switch boxes are very sturdily constructed in steel and use quality rotary switches which give the impression that they would last a lifetime. Other touches include full shielding and gold plated contacts, plus little rubber feet to stop the boxes sliding across the desk.

STEVIE KENNEDY

DataFlyer XDS

External 3.5in IDE hard drive kit for A600/A1200 Supplier: First Computer Centre Phone: 0532 319444 Price: £54.99 (hard drives optional)

The advantages of a hard drive are numerous but it seems that the larger the hard drive the quicker it fills up and eventually you find yourself constantly shifting programs and data in order to maximise the space.

What many A600 and A1200 owners might not know is that the IDE interface in their machines can control two drive units if only a second one could be fitted inside the Amira's tight plastic casing. First Computer Centre think they have the answer in the shape of the DataRiver XDS, an external box which uses the internal IDE interface. The DataFlyer features a lightweight metal case complete



with ribbons and software but although the manual is fairly clear, actually fitting the kit into the machine is a nightmare.

It is not a simple task and certainly not recommended for Amiga novices as it requires a great deal of fiddling inside the machine. The actual ribbon plugs into the IDE port on the motherboard and exits through the PCMCIA slot.

There is an additional IDE connector on the ribbon so that you can attach your own drive. This may sound simple in concept but when it comes down to the practical, things rapidly set very difficult. In order to feed the ribbon through the PCMCIA slot you

need to remove the motherboard protective plate which is a real chore. The manual warns that the plate is fairly sharp and care should be taken when removing it. Fairly sharp? The plate is so sharp it would put the teeth of a Great White shark to However, once the pain of fitting was over the drive per-

formed exceedingly well and looked at home sat alongside the A1200. There wasn't a noticeable speed increase over the built-in IDE but the major advantage of this kind of hardware is increasing the storage capacity and avoiding the use of the slow PCMCIA slot

The DataFlyer powers from the Amiga supply but there is an optional PSU port if the load proves too great. Jumpers are also included if you want to change the power input and set up how the drive should be interpreted - either as a single, master or slave drive. This depends very much on how many hard drives you presently use and which ones are auto-

Provided you can put up with the installation, the DataFlyer XDS is a very useful piece of equipment that allows you to upgrade the storage capacity of your present system without having to replace your old hard drive (good news for 40Mb owners).

I would have to question its durability due to the very suspect wire connections which weren't very well secured and did tend to come away from the port connectors, but hopefully the First Computer Centre will rectify this as soon as possible The drive case and cables costs £54.99 and 3.5in drives can

be purchased at an additional cost, the largest drive size being

SmartyPaints

Children's paint package for ages 5 to 14 years Supplier: Chroma Computer Images Phone: 0328 862693

Paint packages for younger children are a more comthese days than in years gone by, but there are still only a few Kid Pix being the most notable recent release. SmartyPaints in a simple package with a new twist in that it is designed with the parent in mind and can be configured for each child in the

The idea is based around a main menu containing a variety of the usual painting and drawing tools from where the actual



painting menu can be controlled. Parents are invited to decide which tools each child can master, and the menus which appear when that child uses the package can be set to include only those tools.

When the parent is happy that the tools are just right, "locking" the menu ensures that the configuration is saved to disk. Chroma allow each household to copy the disk for each child and each configuration, so there's no need to spend £28.50

more than once. A PIN number feature is available so that only by typing it in can the user access the configuration screen, so parents have access and control and can leave little Jane and Johnnie to paint away in peace

What SmartyPaints brings to the "edutainment" field is the process whereby a child can be set a number of exercises, or just left to draw freehand until the parent or teacher decides it is time to introduce a new tool.

By gradually increasing the tools available to the kiddy, a sense of definite achievement is encouraged as is a structured approach to teaching computer art.

As a bonus, by restricting the tools to the bare minimum, one can avoid the usual confused stare when twenty or so buttons spring to life on screen when first booting a piece of software, and as any teacher will tell you, making a child able with a new task is half the battle.

STEVIE KENNEDY

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The older the better

h, how we wept when three million Amiga owners suddenly realised that the machine which had made it all happen – the A500 – was being discontinued in favour of the A1200.

was being accommod in labout of the AZOC-Despite the apparent obsolescence of the old sea dog of the range, however, it is still the most numerous model by a long stretch and will still run the majority of modem software.

Thousands of owners have decided to hang on to their machines for one reason or another, usually through a shortage of cash, and though they may feel left out of things at times, the price of A500 add-ons has plummeted and some real bargains are there for the taking.

A quick whizz through ACs advertisements should be enough to confirm the harvest of hardware goodies at silly prices.

GVP HD8+

Currently being knocked out at £199 for the 42Mb version, GVP's HD8+ has to be the A500 hard drive bargain of the moment.

Distributor Silica Systems (081-309 1111) have progressively cut the price of the drive from its near-£400 original price tag as a response to the A500 going on the back burner, and as a result the A500's fastest hard drive is now one of the cheapest.

The HD8+ has an access time of about 11ms, will transfer data at 1Mb per second (twice as fast as many A500 drives) and can accept up to 8Mb RAM in the form

A500 owners might have been left behind by AGA technology, but the result is that they can now pick up some real hardware bargains

of SIMM modules, it is blessed with good prepping and formatting software, an excellent manual, and a reputation for reliability which would make most other drive manufacturers green with envy.

Inside the unit a quiet cooling fan and tidy layout speak well of the drive's general design, and the game switch mounted on top of the casing is a handy aid for those who use a lot of auto-booting game disks. Ally this to the SCSI through-port and you have a hard drive with all the features you'll need.

You can even slot a PC286 emulator into the drive's internal mini-slot expansion port, though whether in this day and age a 286 emulator is of any use to you is another matter entirely.



CBM A570

Commodore's long-delayed CD-ROM drive for the ASO0 and ASO0 Flox was never the success it would have had to have been to breath new life into CDTV, a task which was almost Lazzus-like in proportions, but the failure of the initial launch means that stock of the drive can still be found selling at prices so silly they'd make the Three Stooges look like a straight act.

Silica Systems (081-390 1111) were until recently selling the unit for £150, a price which is low enough to make AS70 almost a throw away freeble. Bundled software, with nominal value almost in

excess of the AS70 itself, includes Sim City, Lemmings, an encyclopaedia, and the CDPD disc with hundreds of PD utilities, so new owners have a good start to their CD-ROM collection. Hutchinsons Encyclopaedia isn't the best_piece of

Hutchinsons Encyclopaedia isn't the best piece of software you'll ever encounter, being slow to use and cursed with an awful interface, but if you fancy a cheap family CD-ROM library the AS70 is a good bet.

All CDTV titles will work with the drive, titles which themselves are being sold at bargain bucket prices, so for a limited outlay the user with specific education or reference needs can pick up a system with lots of life left

Games are less numerous for CDTV/A570, but there are enough to keep you going if you haven't already layed them on floppy, and the half dozen or so shareware CD-ROM discs around contain the bulk of all deceng Amiga PD and shareware released up until about 1993.

Commodore A590

Though for long a bit of a whipping boy for those with faster hard drives, the A590 has seen an upturn in its fortunes of late as its price has dropped and various retailers have souped up the

Originally a slowish 20Mb IDE drive, the A590 soon adopted SCSI and was then treated to a variety of third-party drive units usually in the shape of a spritely Quantum 40Mb or better. The result is a tidy little unit capability and a through-port which fits in the A500's DMA slot for warranty-free installation. It might seem a bit like advis-

ing a car fanatic to buy a Hillman Imp, but if all you need is something to get you from A to B cheaply and effectively, then any old British banger is better than a push bilke.

A500 owners who need a hard drive but don't fancy spending \$300 or more on a faster drive for a machine which is perform-

(0386 765180) are one compar which in the past have revitalise old A590s with new drives, at New Horizons (0227 77317 supply the original unit f

y alternative.

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official Commodore product will
d good manuals and decent instal
lation software - something which
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out since day one the Amiga has been synonymo

with video courtesy of its basic design, which makes it the ideal platform for everything from editing to animation One of the key factors in its success has been the

's ability to output a video-compatible sync signal which makes it perfect when used in combination with a genlock. Thanks to the aforementioned sync, overlaying Amiga graphics

over live video is quite literally simplicity itself. Because of this, titling and combining animation with live action are almost second nature. To achieve such effects in the home environment prior to the arrival of the Amiga was to say

the least a tricky busin Formerly this type of production required a PC with lots of additional hardware, including dedicated add-ons to provide a video-compatible signal containing the appropriate sync, plus a suitable sound card to supply the audio. And of course in order

to actually genlock a signal you'd still need to add a genlock. Fortunately the Amiga has all of these elements built-in with the exception of a genlock - which means animation and Amiga-based audio can be sent straight to tape without any additional investment. Even the genlock isn't an essential when recording graphics courtesy of the Amiga's built-in/external

modulator. However for most video productions a genlock is often an essential, which even on the Amiga demands a little extra

Assuming this is the case and you can't resist the opportunity to combine video with Amiza graphics, the most important element is to understand exactly how a genlock operates.

Essentially all it does is replace the first colour in the Amiga's resister with the incoming video signal. In reality this means that anything painted using this register will appear transparent and allow the live video to show through.

However before going any further it's worth clearing up a common misconception. Although the first colour in the Amiga register is normally black, this doesn't mean you can't use black Paul Austin reveals all those videographic essentials that any would-be Scorcese

should know before embarking on a career in the movies

as part of your Amiga graphics.

In order to use an identical colour you simply have to alter the colour of another colour pot elsewhere in the palette. The actual colour plays no part in the genlocking procedure; its position in the register merely determines which colours

appear transparent. Although the basic replacement of colour zero is the key to genlocking, it's only the beginning. In most cases a genlock will

offer much more than a simple officen combination of the two For example, the majority will also employ faders to allow dissolves between the two signals. As a result, it's possible to start with the video signal and then fade up the Amiga graphics

And of course with the assistance of a genlock, this enables logos or animations to fade-up while leaving the colour zero

areas of the image untouched. If you're interested in recording Amiga animation without the video option there's yet another piece of hardware which could prove invaluable. Although it's possible to record direct

A soft touch

As you're probably well aware the Amiga market is quite literally fit to burst with video-compatible software. Fortunately almost every Amiga ever sold shipped with a copy of DPaint, which since time immemorial has been the most important to the probable of the probable





Extra hardware

With the exception of the genlock – and of course the Amiga – there's very little else that could be classed as an essential. However that doesn't mean there isn't a huge array of potential add-ons. a genlock but instead of replacing a colour in the Amiga's palette it will isolate a particular colour within the incoming video signal and replace this with computer graphics. In professional studios this is known as a blue screen effect and is the driving force behind the 50-called "weather man effects". Basically on the Amiga the choice of chroma keyers is very limited.

with perhaps the only affordable option b RocKey from RocTek

you'll sacrifice almost all of the impact your amaz-ing graphics may lend to the production. Nothing sprics may lend to the production. Nothin worse that scruffy cuts and sloon

Rs/camcorders, most manufacturers offer built edit control either via direct edit cables or pro

colour control. In the case of ADPro you're even provided with a dedicated broadcast limit operator which will automatically adjust the saturation and luminescence to the correct value for composite video.

Another habit worth adopting is blacking your master tape prior to recording. Basically all you do is create a completely black image in your favourite paint package and record this over the entire tape.

Although a seemingly odd pastime, it has a few very useful side effects. Firstly it automatically adds a sync to the tape which makes editing much easier later on in the production process. Secondly, and perhaps more importantly, blacking the tape dramatically reduces one of the perennial problems associ-

ated with video, namely drop-out. Drop-out is a infuriating problem which appears as a sudden and sometimes dramatic drop in colour during playback. The problem usually rectifies itself after a few seconds but this usually makes even more noticeable.

Hopefully blacking the tape beforehand should so a lone way towards eradicating the problem. Finally when your tape is ready to roll, always start recording a few minutes into the tape, as this allows the tape to stabilise which again improves editing and minimises drop-out.

to tape via the composite output of the modulator, the quality isn't exactly broadcast. Fortunately there is an alternative in the form of a PAL

encoder. Basically an encoder has one aim in life and that's to provide the optimum conversion from the RGB signal of the Amiga into either composite or S-VHS video. Assuming you have the necessary hardware and are ready to

record, there are a few essential working practices which will ensure you get the best possible results.

When working with composite/VHS video it's essentially that you avoid the problem of colour bleeding. Unfortunately due to the limitations of composite video it's vital that any Amiga-generated colours are either at or below 192 in the Amiga's colour range. For those new to the Amiga, the available range stretches from 0 to 255. However if you exceed 192 when sending Amiga graphics to tape, the colours will appear to bleed into their neighbours, producing a smudged or blurred

Unfortunately many Amiga packages use palette requesters that show the available registers in a scale from 0 to 15. In this situation never exceed 12 when compiling your images.

Even when these precautions are taken it's still possible to suffer from so-called hot colours. Fortunately there is a trick which can solve the problem - especially if your primarily interest is titling or animated logos.

Basically all you do is load the image into DPaint, select a dark colour as your pen and cut out the text or loso. Now select the Edge... Outline option from the brush menu.

At this point an outline should appear around the brush. If the line is too, thin simply repeat the process until you have a distinct edge on the text or logotype.

Essentially all this does is provide a border which will stop highly saturated colours bleeding and blending together. Obviously this is ideal for overlaid graphics, but what about full-frame computer graphics such as ray-traced animations?

In this situation the solution is slightly more expensive and involves investing in dedicated image processing package such as ADPro. ImageMr, or ImageFX - all of which provide advanced

Moving on up

available to supplement DPaint/Brilliance produc-tions. Essentially any buying decision should revolve around a combination of usability, realism

hoice.

However, if you're harbouring aspirations wards state-of-the-art animation in the style of eaGuest or Babylon5, you'll need a power pack-

properly.

Instead there are two options. You can use smaller images and perhaps centralise them to create a window effect, or use full frame lo-res



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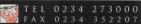
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