Vol 8 No 9

September 1991
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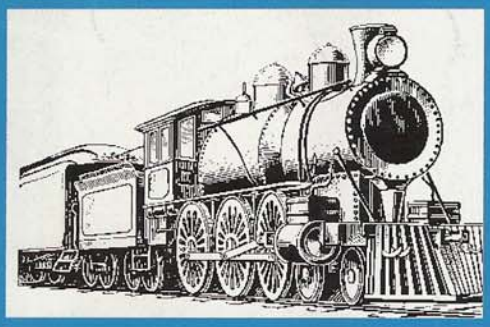
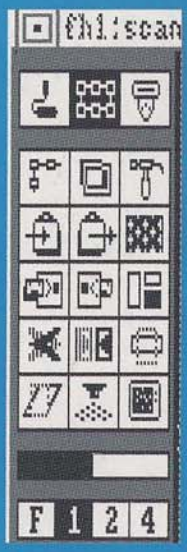
The Australian COMMODORE and AMIGA REVIEW

Golden Image Scanner
Full Review





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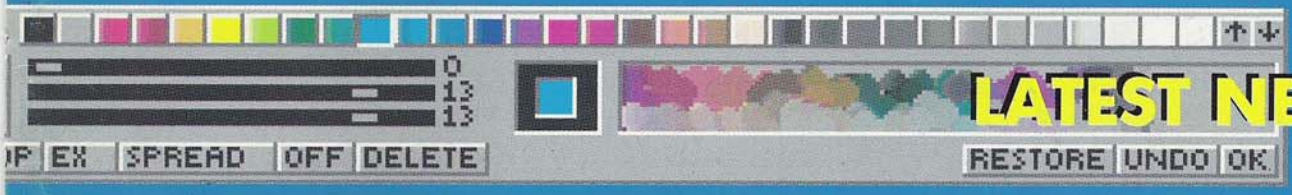

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SEPTEMBER
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Australian Commodore Review:
21 Darley Road Randwick, NSW 2031 Phone: (02) 398 5111
Published by: Saturday Magazine Pty Ltd.
Distribution: NETWORK Distribution
Printed by: Ian Liddell Pty Ltd
Editor: Andrew Farrell
Production: Brenda Powell
Design & Layout: Andrew Dunstall
Subscriptions / back issues: Darrien Perry (02) 398 5111
Entertainment Editor: Phil Campbell

Advertising: Ken Longshaw (02) 398 5111 or (02) 817 2509

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Editorial

Commodore Shuffles and CDTV News

This month has seen a real mixed bag of news surface, with word that Workbench 2.1 is finally finished, as is Unix 2.0. However, when the new Workbench will ship remains a mystery. Commodore have made a few more cutbacks in the United States, with Andy Finkel - previously manager of AmigaDOS 2.0 - being moved over to CDTV development. There were major cutbacks in the Unix area, though these may be temporary.

Commodore's financial reports for the year ending June 30 1991 have been posted and all the indicators are that they are doing remarkable well at a time when the industry as a whole seems to be suffering a little. Not surprisingly, European operations accounted for 85% of total sales, proving that Commodore's home market is still having serious problems. Commodore achieved a net profit of $3.3 million, a vast improvement over last year. Interestingly, sales of the Commodore 64 improved by 30% and the Amiga by 20%. I'm sure that's bound to provoke a flood of "please give us C64ers more coverage". Well, we're trying, as you may have noticed there have been several product reviews in recent issues and we'll endeavour to give the C64 as much support as we can muster. Of course it does depend on new products turning up and on reader contributions. If you have something to offer, please post us a disk with an ASCII file (not GEOS) which we can transfer to the Amiga for desktop publishing.

Irving Gould, Commodore's main man, said, "We are encouraged by the significant growth in sales and earnings achieved in fiscal 1991. In the coming fiscal year, we will redouble our efforts to expand and enhance our line of products, pursue new market opportunities and gain further operating efficiencies worldwide." Certainly a positive outlook for the new financial year.

In this issue we have a great article for those still deciding which Amiga to buy and a look at a new flicker fixer to soothe those interlace blues. For desktop publishers we examine the new Golden Image Scanner. If you're into desktop publishing, or would like to be, be sure to grab the next issue of *Professional Amiga User* which should be on the newsstands now too.

CDTV continues to attract a lot of comment. No-one seems truly qualified to comment; after all, the product is breaching an entirely new market and we shall have to wait and see. For the time being Phil Campbell will be keeping us up to date. We all eagerly look forward to the A690 CD-ROM drive for the Amiga 500 which is due in the next six months. It will allow CDTV titles to be used on the A500. With new applications expected to offer support for clipboard, it should be possible to extract information from reference works to include it in an essay or project.

Commodore have announced CDTV is compatible with Kodak Photo CDs. The idea is you take pictures using a normal camera, which are then transferred to disc at a special image lab. You then take the disc home and browse through the 100 or so pictures on each disc, noting down those which you wish to have prints made from. All the necessary information is kept on the disc for both video stills and high quality prints. You should be able to return the disc to the lab and have selected images turned into standard colour prints.

Making this all the more appealing is the fact that Commodore have demonstrated a CDTV player with DCTV inside - quite a mouthful. DCTV provides a full 24 bit (16.7 million colour) display. According to one official, this yet to be approved add on could cost around $100 US. Gail Wellington snapped up a Colorburst during her recent visit to Australia - perhaps it could be a contender for the same job? CDTV is certainly moving ahead.

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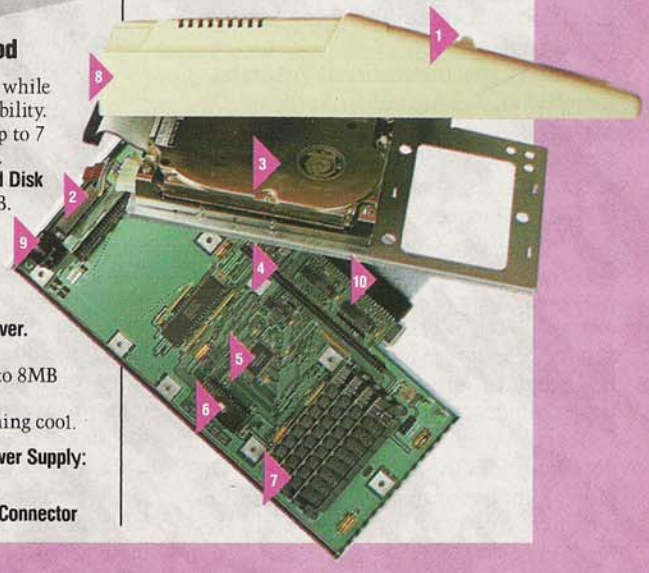

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Ram Rumbles

Computermate to handle Mindscape products

Mindscape International Australia has appointed Computermate as a sub-distributor of the entire range of Mindscape software. The appointment was made official by Mindscape International Australia's managing director, Ray Mortimer, on July 1. According to Mortimer, Mindscape made the appointment as part of its moves to broaden its distribution base in Australia. "We feel Computermate Products will be able to open doors previously closed to Mindscape software titles," he says. "The Computermate Products operation allows for more sales flexibility, especially when it comes to smaller orders from the reseller channel."

Computermate's managing director, Ray Firth, says he's delighted ... "Computermate Products believes its ability to source product direct from Mindscape International Australia will help streamline our software purchasing arrangements considerably."

Mindscape International Australia, a member of the Australian Software Distributors Association, handles some of the most popular games and productivity software titles available in this country, 70% of its business is in games titles.

Major titles Computermate Products Australia will sub-distribute include *Mavis Beacon Teaches Typing, Chess Master 2100, World Atlas, The Miracle Piano Teaching System,* as well as the full range of Virgin Entertainment Software. Mindscape, at the Summer CES in Chicago, was appointed international distributor of Origin software titles. "Origin is famous for the *Ultima* series of interactive role-playing games software," Firth says.

Media spotting and Commodores at work

In our regular look at what Commodore computers are busy doing and where they are just as busy appearing, we welcome reader contributions and remind you that the best letter published each month will receive a free subscription if and when the author telephones the editorial office. Thank you to all those who have sent letters over the past month or so. Hopefully we will clear the backlog quickly.

Television spottings

Andrew Gormly of Walkerville, SA sent several letters with assorted spottings of the Amiga. He spotted the Amiga 1000 in that CPA ad we've all come to know and love. The ad shows an accountant who is not part of the CPA organisation bumbling his way through a series of questions from a client. There's also some reference to him not keeping up to date, about the same time that he leans back to try and cover the fact there is an Amiga 1000 sitting on the desk. Now although I agree about the not up to date bit, the insinuation is that the Amiga 1000 is not fit for the job. Not too positive!

Well, *Wendy Cracked A Walnut* saved the day with a spotting by Andrew of a Commodore 1084 monitor showing a spreadsheet. We never got a good glimpse of the machine in question - but it could have been an Amiga. Bit of a mystery that one. Since you're so busy sending letters Andrew, we'll grant you the subscription on enthusiasm and effort!

Amiga seen on Hunch

The legendary talking hairpiece has put the Amiga in his show - perhaps he's trying to keep up with Vizard? The Amiga 500 showed up during a story about a couple of enterprising gentleman who had built a fancy flight simulator which included the Amiga. We think the story could have something to do with an item in this month's Notepad - check it for more details. Also sighted by our keen spotter during a telecast of the English Soccer highlights - Chelsea F.C. with the word Commodore plastered on their guernseys. Obviously sponsored by Commodore - who were no doubt happy as Chelsea gave Liverpool a hiding! Thank you to Ron Mundy of Melton, Victoria, for these two spottings. ❑

TOP TEN

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Tower FRA (Amiga): If your are looking for authenticity and accuracy in a simulation, Tower FRA places you right in the hot seat. Take control of an entire airport; departures, landing and queuing.

Proflight (Amiga): Uses complex and exact flight equations to model the flight patterns of the Panavia Tornado, one of the fastest combat planes. This is the most accurate, most realistic and extensive Amiga flight simualtor realesed.

Vector Championshiip Run (Amiga): Ever wanted to be on the starting grid with the world's Formula One professionals. Now you can in one of the most sophisticated 3-D driving games on a home computer. Reviewed in the August ACAR.

Ninja Rabbits (Amiga): This is an exciting multi-level arcade punch-em-up with absolutely amazing graphics. Move your Ninja Rabbit through the chemical factory sealing all the leaks in the gas pipes while pounding the bad guys.

The Big Box (Amiga): The compilation to end all compilations! 10 amazing games all in one. Just look at the titles listes listed below; Teenage Queen, Captain Bloof, Safari Guns, Bubble Plus, Purple Saturn Day, Krypton Egg, Jumpin Jackson, Stir Crazy, Hostages, Tintin of the Moon.

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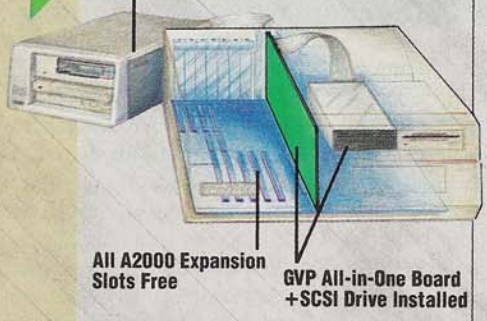

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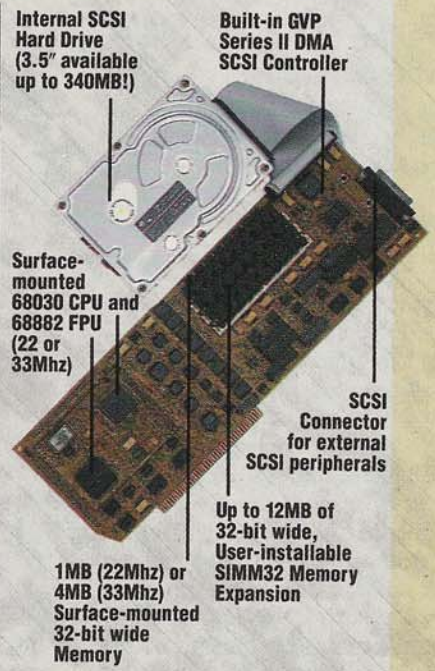

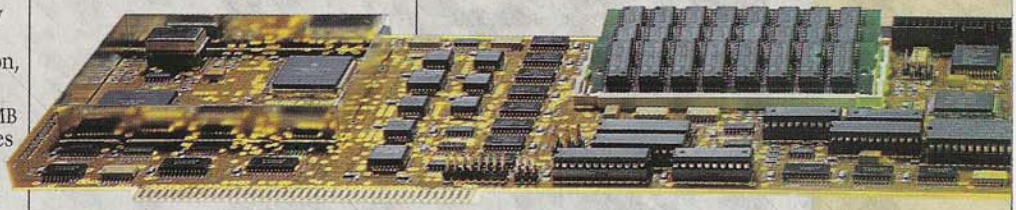

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Notepad

Australian fax software - soon!

Greg Perry and his team of Amigaphiles have been busy churning out some fancy new software. There's rumours of a new terminal program, and at World of Commodore we saw examples from a smart new printer driver for the Canon FP-510 inkjet printer. The package also includes a stand alone program which will allow you to print 24 bit IFFs directly. One application would be to use the Vidi 2000 to grab a 24 bit video image, save it and then print it out using GP Software's driver.

You can now safely invest in the Maestro ZXR 9600 Fax/Modem. In beta testing right now, and expected for release around November, is a program to handle sending and receiving faxes using the Maestro fax/modem. We saw examples of the program in action at the recent show and it appeared to be well on the way.

Compuserve in Australia

Fujitsu Australia have launched Compuserve Pacific, the result of a licensing agreement between FAL and the US based Compuserve. Over 1,000 members have already signed up, with rapid growth expected. Some 1500 databases are available on-line, covering a wide range of professions. Australian members can now access the system for around half what the service used to cost.

Compuserve also has a wide range of services for the business world, however home computer owners are bound to find the many special interest Groups of great value. There is also the opportunity to directly communicate with software companies and corporations who provide third party products in the United States. A large resource of software is also online available for downloading.

A utility is available for Amiga owners to choose which areas and files they wish to access prior to logging onto the system. This helps to save money and time. For more information call Fujitsu on 02 410 4453.

Hi-res clip-art

A range of locally produced high resolution monochrome clip-art for use in desktop publishing has been releases by Computa Magic 03 326 0133. The five disk set includes images of birds, Australian plants, and many other themes. Suggestions are welcome for additions to the range. The cost is $29.95 per disk.

Authoring clip art

Computermate has announced a trio of INOVAtronics products are now available - *Interface Design Kit, Lunar Construction Set* and *Canvas*. *Interface Design Kit* provides excellent button and icon clip art for users of multimedia presentation systems, such as *The Director* and *AmigaVision*, and software authoring systems, such as *CanDo*. Dozens of buttons and icons, on four floppy disks, depict frequently used features in Amiga software, including mouse, music, videodisc, clock, printer, and many others. Several versions of generic buttons, such as circles, rectangles and arrows are also included. All buttons are available in medium-res and high-res. Completing the trio are *Lunar Construction Set* and *Canvas*. Both packages have been created by Ryan Roberts, currently working as an artist/animator for Warner Brothers Animation.

Lunar Construction Set consists of two disks of "space art". Planets, asteroids, starfields, mountains, lunar stations, spaceships, craters and monsters, as well as full screen interiors and landscapes are included. Full screen animations, depicting whirling asteroids and explosions, complete this package of space art.

Canvas, a three disk set, provides pictures and animations from various fantasy and animal characters in settings ranging from the amusing to the frightening. Using professional animation techniques, this package will allow your imagination to run wild. *Interface Design Kit* sells for $79.95, *Lunar Construction Kit* sells for $39.95 and *Canvas* sells for $49.95. Distributed by Computermate on (02) 457 8388.

TurboText

OXXI are shipping *TurboText*, a powerful editor which allows users to customise the editing environment to emulate other text editors. With more than 15 different ready-to-use emulations of Amiga, UNIX and PC editors, such as *CED, TxEd, BRIEF, WordStar* and *QEdit*, you can define your own environments, using your own most used commands, with menus that suit your own work habits.

Textfolding, a new feature for the Amiga environment, allows indented text to stand out as the major points of a document. Remaining text is displayed in a condensed form. The auto-indention allows for easier and faster text editing. The package supports full standard clipboard cut, copy and paste, including vertical selection blocks, and makes full use of the graphical interface of the Amiga computer.

TurboText provides full support of the ARexx macro interface, with more than 125 commands and many other ready-to-use ARexx macros. Other goodies include an integrated programmer's calculator, a powerful hexadecimal editing window and the ability to record any sequence of operations to be replayed as a macro. *TurboText* also sports Word functions, a function that allows you to search backwards or for a whole word, and virtual Screen and line/block undelete functions.

Running under AmigaDOS 1.3 or 2.0, the *TurboText* package will run on any Commodore Amiga computer with 512 K-bytes of memory and one disk drive. The turbocharged text editor *TurboText* sells for $119.00. For more information call Computermate 02 457 8388.

Scala 1.1

Developed by Digital Vision Ltd., Norway, and distributed in the U.S. and Australia by GVP, *Scala* has already become synonymous with professionalism in the Amiga software market. Just three months ago, this comprehensive software package, designed for use on Amiga personal computers, took the market by storm with its extensive titling and presenta-

Continued on p8

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tion capabilities. Noted for its extremely easy to learn and use interface, the original version offered an impressive array of typefaces, backgrounds and transitions. In addition, it featured animation capabilities and supported PostScript.

Version 1.1 adds credit scrolling, ARexx and colourfont support, full support for outline fonts and new function keys. There's also realtime anti-aliasing - a technique which allows the user to simulate higher resolution on the screen automatically. Also new in Version 1.1 is the superimpose transition, which takes two pictures and blends them together much like a video mixer does in a fade transition between two video sources. For more information call Computermate on 02 457 8388 or Power Peripherals on 03 532 8553.

Tomorrow's pilots training on Amigas!

Everyone has seen flight simulation programs. There have been many, many variations since Microsoft's original came out so many years ago. Today, you can get flight simulation programs to suit virtually every computer available. To quote the old maxim, "You ain't seen nothin' yet!" Now there's a flight simulator so realistic that the pilots of tomorrow are training on it before risking a hundred thousand dollars worth of real plane - and themselves!

Needless to say, this flight simulator is no ordinary "pop in the disk and go" variety. In fact, the simulator itself actually looks like the cockpit of an aircraft, for obvious reasons. We're talking about the NOVASIM flight simulator and it has been installed at Navair's flight training centre at Bankstown.

Based on the Amiga computer, the NOVASIM contains visual and radio details of all NSW, and almost all Australian airfields It can be "flown" as a single or twin engined aircraft with full instrumentation. Flight configurations can be programmed into the simulator to meet the training needs of the "pilot". The controls respond realistically to the respective inputs, and audio circuits are built in to enable radio training and a realistic flight scenario can be created.

There is one big difference between the simulator and the real thing (apart from the ability to walk away from a crash, that is!). The difference is that the instructor can "freeze" the simulator in mid-flight to explain to a student what he or she is doing wrong - without falling from the sky!

The Amiga computer gives the NOVASIM outstanding realism due to its outstanding graphics and sound capabilities. In fact, the Amiga was chosen for this very reason against all comers. In the past, the Amiga was often dismissed as just a "games" computer. It seems that this game is very much for real!

Maxiplan 2.0

Although there is in fact a later version, official support is now only available for version 2.0 of *Maxiplan*. Nevertheless, this is a great spreadsheet. Each worksheet may have up to 512 columns by 65,530 rows (memory dependant). You can name ranges, have spoken and written cell notes and there are some 70 built-in functions.

One impressive area is the graphics handling which now includes Exploding Pie, 3D Bar, Stack Bar, 3D Pie, Hi-Low, X/Y Scatter, Area and Line and Step. Dynamic linkage of data and charts allows you to update on the fly. Once you're happy with the finished chart it can be exported as an IFF file. Recommended retail price is $169.95. For more information call Dataflow on 02 331 6153.

Canscan text scanning service

Canscan Computer Services are a Secretarial Service with a difference - no typists, just a line of scanners with some very impressive hardware and software attached, to transform the printed or typed page into a computer file.

Why the need for this scanning service?

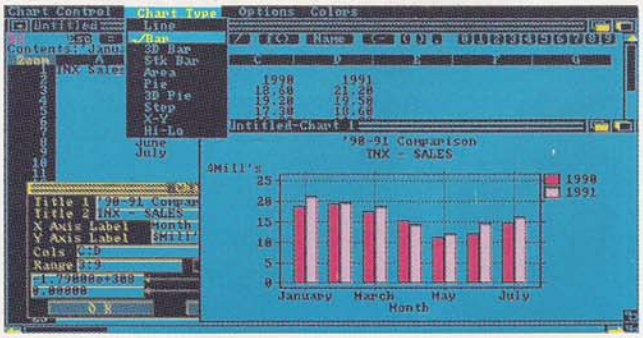
Mr Stannard of CanScan explained, "There is a growing need to get information from the printed page into a form business people or students can manipulate with their own computer system."

School and university students are frequently asked to comment on or use huge slabs of information from various sources. The retyping is horrendous. Business people need to use printed information in reports, recommendations and proposals. Their productivity can be more than doubled by the scanning services CanScan is offering.

Mr Stannard added "Scanning is faster, cheaper-and, in many cases, more aaccurate than the manual alternative."

CanScan uses a sophisticated scanning system coupled to "Intelligent character recognition" to ensure fast accurate results. Scanned text can be supplied on disk in a comprehensive range of word processing, spreadsheet or database package formats.

D Paint IV



Maxiplan

Graphics for use in desk top publishing can be supplied in six formats for people wanting to use company logos or graphics in their presentations, news letters, flyers or labels.

How does it work? The businessman with a PC or the lawyer with a WP Department can simply send over the printed or typed matter and indicate the format his PC or WP department uses. A disk in the desired format is returned.

This adds up to a service which supplies ready-to-use text and graphics, for your system, at a cost that makes the whole package very attractive.

More information from CanScan Computer Services (Ashfield NSW):

Phone (02) 716 6226
Fax (02) 744 7036

Deluxe Paint IV

It is no secret that the MS-DOS version of *Deluxe Paint* has boasted numerous features superior to the Amiga version for some time. This is now remedied with the release of version IV. The program has been given a Workbench 2.0 look and feel, with improvements also being made to the file requestor. HAM mode is now supported - however it appears to have been closely adopted from the 256 colour support available in the PC version.

A new paint mode called mix provides traditional colour mixing on-screen. The gradient requestor has been give a thorough work over with the addition of new types of gradient fills (LINE, SHAP, CIR, CON and HI) along with more control over areas. As expected the colours menus has been completely altered to support HAM.

Metamorph is a new brush function which enables you to morph between two brushes over a specified number of frames. Colours are also morphed. Fans of Disney's Animation Studio will be happy to know that the old onion skin effect is now available in *Deluxe Paint* - it's called Lightbox, and enables you to see the next and/or previous frames in an animation.

A demonstration copy of *Deluxe Paint IV* is available (with LOAD and SAVE requestors disabled) for $5.00 by calling Prime Artifax on (02) 879 7455.

The full release should be available mid-September. For further information ring Electronic Arts on (075) 911 388.

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GoldenIMAGE

Hand Scanner *for the desktop publisher*

Filling the page with dazzling graphics and pretty pictures is all part of the ideal most would be desktop publishers yearn for. However, a ready supply of useful clip-art may not contain the necessary image, or you may have some pictures of your own you wish to include. A hand scanner could be the answer as *Andrew Farrell* reports.

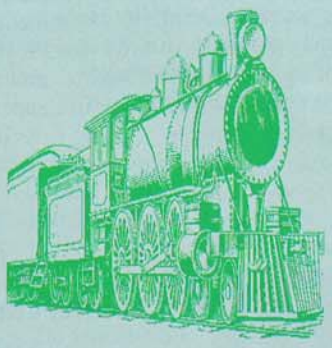
There is more than one way to get graphics into your Amiga. You can draw, raytrace, digitise, frame-grab or scan to your heart's content - but if the end format does not suit your mode of publishing, it will be of no avail. For desktop publishing work I use the Sharp JX-300 scanner. This is a $2,500 scanner which also requires an expensive interface from ASDG. Not too cheap. It does however perform splendidly. We produce full colour separations, 256 grey-scale half tones and simple line art.

Of course, the price places it firmly out of the reach of your average black and white desktop outfit. Most of us are limited to dot-matrix or laser output if we're fortunate enough to be near a bureau of some description. For this type of work, simple monochrome scans suffice and when correctly dithered, produce acceptable results.

The GoldenIMAGE Hand Scanner offers this facility and includes a handsome touch - up paint program. Inside the well presented package is all you need to get started; power supply, interface, scanner, software, cables and two manuals. The interface connects to your parallel port by means of a short cable. The scanner then plugs directly into the interface with enough cable length to have it sitting comfortably by your mouse.

grey - scale scan

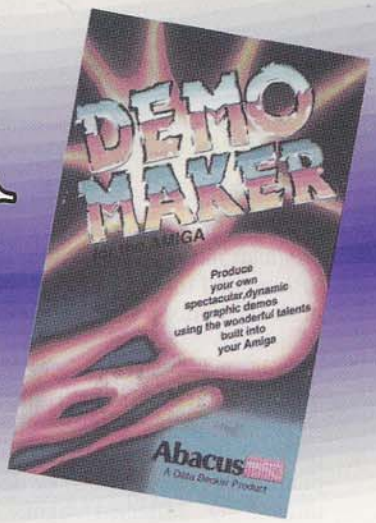
Touch - up program



examples of scans

Continued on p12

DEMO MAKER



Written by one of the most prolific coders in Germany, the TCC-DESIGN group of RED SECTOR, lets you create complex graphic demonstrations quickly and easily, without programming a line of code. **DemoMakers's** limitless features can be easily understood in a matter of minutes. Almost all functions **DemoMaker** can be accessed using the mouse. Your IFF graphics and fonts can also be merged with **DemoMaker** code allowing you to customise your demonstration to your specifications. It's so easy to use that even new Amiga owners can generate professional effects, 3D star-field routines (with user definable sprites), and sounds from most of the popular music programs. Your finnished demonstrations can be run as bootable programs or as a standalone.

Here's just a small sample of **DemoMaker's** capabilities:

- Logos can be faded in and out. Different starting and ending effects can be defined by you.
- Fonts: 8x8, 16x16, 32x32 pixel sizes, for floating text and text screens of upto 16 colours.
- Vector objects like the Juggler, the Amiga logo and other Artwork.
- Mirroring: Different effects with blendable colour palettes let you combine objects and fonts without programming experience.
- Sine wave text scrolling: Scroll text in wave patterns with colours, 3D effects, etc.
- Bob effects: Move BOB's on the screen at lightning speed.
- Includes complete demostrations. Use them a starting point for your own magnificent demos.

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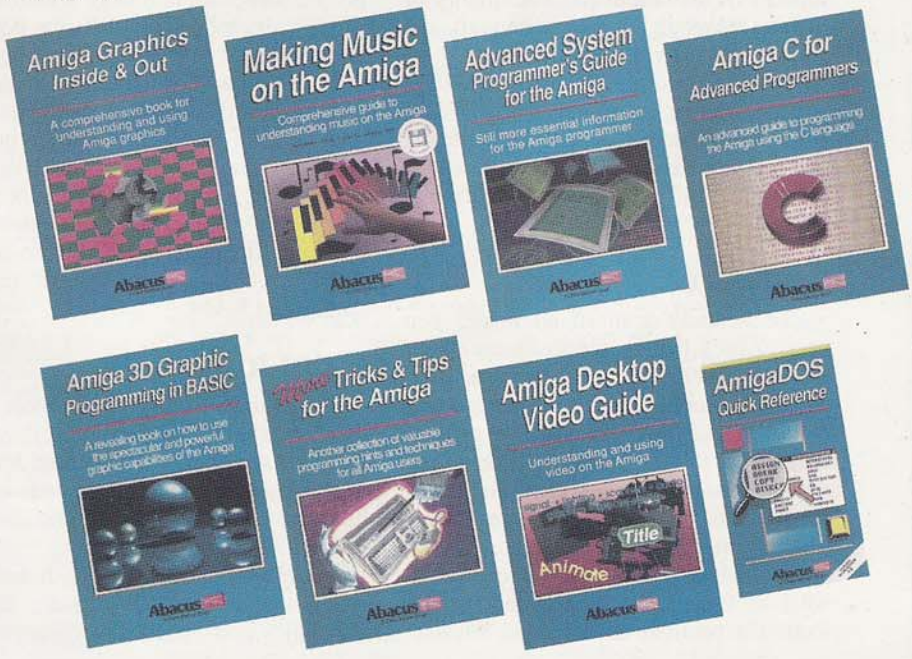

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Operation

A hand scanner is rather like pregnant mouse - you hold it in a similar fashion and to make it work you need to push a button and move the whole device. To guide you there are two small wheels and a large roller. Moving the scanner in a straight line is fairly easy.

A scanner turns a flat picture like a photo into a digital image made up of picture elements (pixels) or dots. It does this using reflected light. The two important specifications with such a device is how many dots per inch it can handle and in how many bit-planes or colours.

The dots per inch or DPI is your resolution, or detail. The bit-planes refer to the number of colours each dot can have. The GoldenIMAGE is a one-bit scanner - so every dot is either black or white. The Sharp JX-300 is a 24 bit scanner, so any dot can have any one of 16.7 million colours - enough for serious colour work.

Having only one colour is not a limitation considering your average printer has exactly the same potential. So what we're preparing here is an image suited to black and white reproduction. We can simulate levels of grey by introducing various patterns of dots to represent different densities of black. In fact, it is possible to save a 16 grey-scale image for editing in a paint program such as *Deluxe Paint III*. The quality of such an image is impressive enough, and quite useful for video applications.

Scanning using the GoldenIMAGE is possible up to a maximum of 400 DPI - a most acceptable resolution. The contrast and brightness can also be altered to adjust for different kinds of original images.

Software

To actually scan in an image you need *Touch-Up*, a monochrome paint program included with the package. Amiga owners will find the design and layout of pull down menus and gadgets unfamiliar. In fact, some of the terms are down right confusing. Closer inspection reveals this program must have had its origins on an Apple Macintosh with terms such as Fat-Bits used to refer to what is essentially magnification. The icons are peculiar and the feel unusual. After some toying with the package, I still felt a little uneasy, however a solid read of the manual revealed this was a very powerful program. In fact, for monochrome work, *Touch Up* would be the most powerful of its kind, although a little unstable at times.

There are three modes of operation accessed by three icons at the top of the tool-box window; Paint, Clipboard and Scanning. The range of available gadgets changes with the selection of required mode. In general, everything functions quickly and smoothly as could be expect from a program dealing such few colours. As with most image processing software, the only niggly side is making sure you have plenty of free memory. The larger a hunk of contiguous memory you can provide the better. Background operations are not advised, and you may have trouble loading a paint program to view 16 grey-scale images on in the background. The manual recommends a CLI driven show program.

Scanning

For best results, you'll need a good flat surface and a large flat picture. Alternatively, cover a smaller image with a piece of clear plastic. The scanner rolls across the surface guided by your hand. It works best over the flat and also benefits from some form of guiding straight edge. Once you've scanned an image, it appears in a large window with slider gadgets enabling different portions to be brought into view. You may also scan into a clip box. The new image can be made to mix with the existing one.

The scan area is set from a pop up window with gadgets to set the DPI, scan width (half or full) and scan height - which is dependant on available memory. The largest area you can scan is 4.08" x 14" - if you have enough contiguous RAM.

Paint tools

Switching to the paint tools icon displays a full tool box of gadgets for freehand sketching and painting. Most of the tools relate to adding to your image, however there are also a couple ideal for improving your image or making alterations to it. Simple brush function are available such as ellipses, circles, rectangles and boxes. For example you can create a box, with a definable fill pattern, and paint with your defined box.

Complex brushes include sketch, polyline, B-spline, Bezier curve and Lasso. With these tools you can make fancy, more complex brushes to stamp onto the page just once or to paint with all over your image.

Whether you're scanning in a new image, or rendering additional graphics, *Touch Up* will handle several modes of operation. You can simply replace the existing image as per usual, or in transparent mode, white pixels of the added image will allow the old image to show through. XOR mode turns any of the previous image white where it crosses black on the new image, whereas RTransparent turns any of the previous image black wherever it overlaps the new image.

There are two levels of undo, box or square, circles and ellipses, six linestyles along with an edge option for pop-art type effects. The spray function is very powerful with selection of the speed, size, saturation and optional fill of the spray. All functions with the fill facility offer the choice of some 36 fills in three resolutions.

Something sketchy

A few drawing programs could take a few pointers from this simple to use but very powerful sketch function. You can choose from freehand or polyline (a shape made of many straight lines), with the option to fill the area with current fill pattern. Quick and easy, and you can position it accurately when you've finished drawing. Add to this a very smart B-Spline and Bezier curve routines and you have some powerful tools for line drawings.

Both Bezier and B-Spline may have up to 127 line segments and 128 points. B-Splines can have 32 control points, Beziers have exactly four. The points are easily adjustable using the mouse.

For closeup work, the FatBits gadget gives you the ability to edit individual pixels. Not bad, but no scrolling - you have to exit back to full view and select a new area to move around.

For powerful cut and paste options, or just painting with anything you care to make into a brush, the Lasso gadget lets you grab any area of the image and turn

it into a brush. This facility works wonders when the different rendering modes are used.

Clip tools

The third set of tools provides control over the clipboard. This is a box you can place on your image to carry out special functions. You can scan directly into the clip area for combining multiple images with the choice of rendering modes mentioned previously. You can flip an area horizontally, vertically or both. You can also mirror left, right, up or down. There's a rotate option; left, right or in degrees and you can slant the box vertically or horizontally.

There's a handy viewer program for having a peek at IFF images before importing them. This is a great idea - more programs could do with this one.

The finished clip can be saved in numerous formats including IFF, IMG, EPSF, PCX, TIFF, Degas, GIF, MacPaint or Printmaster! No doubt this would be an ideal partner for *Pagestream*.

Conclusion

Touch Up does a good job of importing and dithering colour images down to black and white. Going the reverse black to grey scale is also well handled. There is a good range of paint tools and the manual is well written. I must complain about the fact it was perfect bound - ring bound please next time. Probably the best monochrome paint program around combined with the 400 DPI scanner make this package a very useful tool.

Occasional apparent hangs are a little disconcerting although some corrected themselves after a while. The scanning facility is easy to use. Overall, for desktop publishing, excellent value for money. I would recommend it thoroughly. Recommended retail price is $399. For more information contact Pactronics on (02) 748 4700. ❑

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From PET to CDTV An interview with Gail Wellington

by Andrew Farrell

There are few people in Commodore who remember the way it use to be. Gail Wellington does. In her role as Director of Special Projects, Wellington is also responsible for helping decide what will be in the future. In this interview during her brief stay in Sydney, just prior to the World of Commodore Show, Gail reflects on old times and gives us an insight to the development of CDTV and future Commodore products.

If Jay Miner is father of the Amiga, Gail Wellington must be its step-mother. She speaks with enthusiasm and warmth about Commodore's earlier products. However, when it comes to the Amiga, Gail has a special feeling towards it. She was there at the original launch of the machine, nursing a range of beta-version genlocks, operating systems and hardware through to the final moment when the curtains parted and in legendary style Bob Pariseau talked us through the launch. The magic of Amiga beckoned thousands to invest in this new untested platform.

A: How long have you been with Commodore now?

G: I've been working for Commodore 10 years at the 1st June, 1991. I started in the United Kingdom, even though I'm an American. At the time it was the 8000 series and the PET... I was there when they launched the Vic 20. I worked on the 64 right from the very beginning. A lot of the good 64 software came out of the UK. I was lucky enough to work with developers who created things like *International Soccer* and *Simons BASIC*.

A: It must have been very exciting in those early days ... the transition from the PET to the VIC 20 and the C64 was an incredible growth period.

G: Yes, and especially being in Europe. I don't know how the PET was here in Australia - in the States it was definately a computer hobbyist machine. In Europe it was the first business microcomputer. People did accounting and spreadsheets and wordprocessing ... ran businesses on it. Business dealers learned computing, learned how to be business computer dealers on the PET and the 8032 and then the 8096. Then suddenly we opened the world wide up to all other kinds of people when we went into the consumer area. Suddenly we had colour.

Of course I laugh now when some of the MS-DOS micros need eight megabytes, even four megabytes, when I think of the programs we did on the PET and how little memory it had and even the 8032 - 32k. It's not that the programs are that much more sophisticated ... it's like a gas - it expands to fill the available space and then leaks out the edges. I think software tends to do that.

But there was a great deal of creativity in those days of trying to squeeze things in. I think it is one of the things that makes Amiga software strong too. The fact that a lot of the games developers are writing for the 512K, those common denominator machines, and they're doing everything they can think of to use every single byte and still get the maximum functionality out of their titles, and that really puts your talent to the test.

A: Technologically, it was a natural progression from the PET to the VIC 20, apart from the graphics chip in the VIC. The big

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step from the VIC to the 64 was also a natural progression. If the Amiga hadn't come along, where would you say Commodore was headed? We did see some funny machines that didn't seem to do a lot.

G: Well, after the 64 we looked at a family of machines that really had some strengths in that they were different from the 64's strengths. But we didn't know what to do with them, and that turned out to be the 16 and the Plus 4. Despite the fact that in a lot of our strong 64 markets they weren't commercially successful, there were places in the world where they were very commercially successful.

Old necessity is the mother of invention. We had a lot of membrane keyboards on Commodore 16s in the warehouse in Germany. Somebody said, "You've got to turn these into cash." So one of our clever marketing guys in Germany decided that the best way to turn these things into cash was not to sell them as a computer, but he looked at the price we had to get and said "That's about the price of a good technical textbook. So what we'll do is we will sell a complete course in BASIC, for which you get a free computer to try things out on. And sell it at the price of good technical textbook."

"We don't expect you to use this for serious computing - once you've learned, throw it away or give it to somebody else along with the book. And then go buy a real computer." Hopefully a 64, which a lot of them did. We did very well with it, and also in some of the Eastern block countries, like in Hungary, the Plus 4 went into school systems because it would do wordprocessing and some graphics colour for other kinds of educational things. It was inexpensive enough so they could afford it when they didn't have much of a hard currency or a lot to trade with the West. So it had its little pockets of success despite us.

I don't know where we would have gone if we hadn't bought first the technology (Amiga) and then the company. I guess I can't imagine life without it. So it's probably hard to think about what we would have done, I'm just glad we did what we did.

A: It's as much a part of Commodore now as any of the other machines.

G: Yes, I tell people that. Computing is an incurable disease, and once you get into it it's almost impossible to back away from it again. You just really get involved and it becomes a way of life rather than just a tool.

A: So outside of CDTV then, where do we see the Amiga and Commodore heading?

G: You're going to see in the future that we will be doing things in several areas. Obviously with the A3000 and the A3000 Tower that's coming on, we're maintaining a position on the professional side. We're working on better chip sets. There were always new Paula, Agnes and Denise chips.

I've got to stop a minute and tell you my story about the world's only equal opportunity computer. In the Amiga, as you know, Paula, Agnes and Denise are the key chips, and they were part of the 1000. Then when the guys at West Chester went ahead and made the 2000 and 500 and did some IC's - integrated some of the discrete components - they decided to give these chips names too. So we got Buster and Gary.

So I contend that if we have Paula, Agnes, Denise, Buster and Gary as key elements of the computer, that makes us the world's only equal opportunity computer!

We're looking at more integration, more power, faster processors, more things to put in the slots. One of the things that I think has been a strength of ours on the professional side is that we made the 2000 several years ago, it's been in the market over three years, close to four I think, and we have not had to do another CPU until we came out with the 3000.

That gives our engineers a break from designing CPU's - which are large complex projects - particularly when you're trying to stay compatible with existing software base. That really takes us longer sometimes than any other element of the design work.

It's allowed them to pay attention to third party developers, to pay attention to add ons. The fact that we were able to take the 68000 based Amiga 2000 up to an 030 processor with a math co-processor and lots more RAM and all those kinds of things just by putting a card in there was pretty phenomenal. And it's a credit to the engineers who did the original design. I think you'll find that that will happen with the 3000 as well, that we'll spend some time looking at ways to expand and enhance the functionality and customise some of the uses of that product as will the third party hardware developers - that's the advantage of an open architecture and an open machine - as well as continously integrating chips and working on the other things along those lines.

But it's an Amiga and I think there is no doubt that it will stay an Amiga and that we will continue to work on improving the basic technology and not go buy another company. I think that there's a lot of future to the basic architecture that we have. After all who can multitask in 256k like we did in the beginning.

A: So we could probably look for 68040 boards from Commodore soon.

G: I would think that when the chip is stable and the yield is practical.

A: It's too expensive now?

G: Yes, that's part of it, I mean, you've got to have a reasonable number of bugs out of a chip. There are always going to be a few - as anybody who's a metal basher programmer knows there are always a few things you've got to program around. But you have to have them up to where it's reasonably compatible with what was there before, but you also have to be able to get enough chips out of a wafer when you manufacture them to be able to sell them at a commercially viable point. And that of course is a key and Commodore's strategy is to be inexpensive.

A: Can you tell us a bit about how CDTV came about, the early development of the ideas?

G: CDTV was an interesting project and I was privileged to be involved with it from the very beginning. The beauty of CDTV from a technology standpoint is that it is not revolutionary, it's evolutionary.

It's the marriage of three existing technologies - the Amiga, the CD ROM and the infra-red control.

So you're taking three things that are established and you're marrying them. The evolutionary part of CDTV is that it is not "a computer", even though, of course, all of your readers are going to know darn well that it is. That's not what we talk about in the marketplace.

It's a new category, it's an interactive information and entertainment device for the home, principally. At least that's

Continued on p 20

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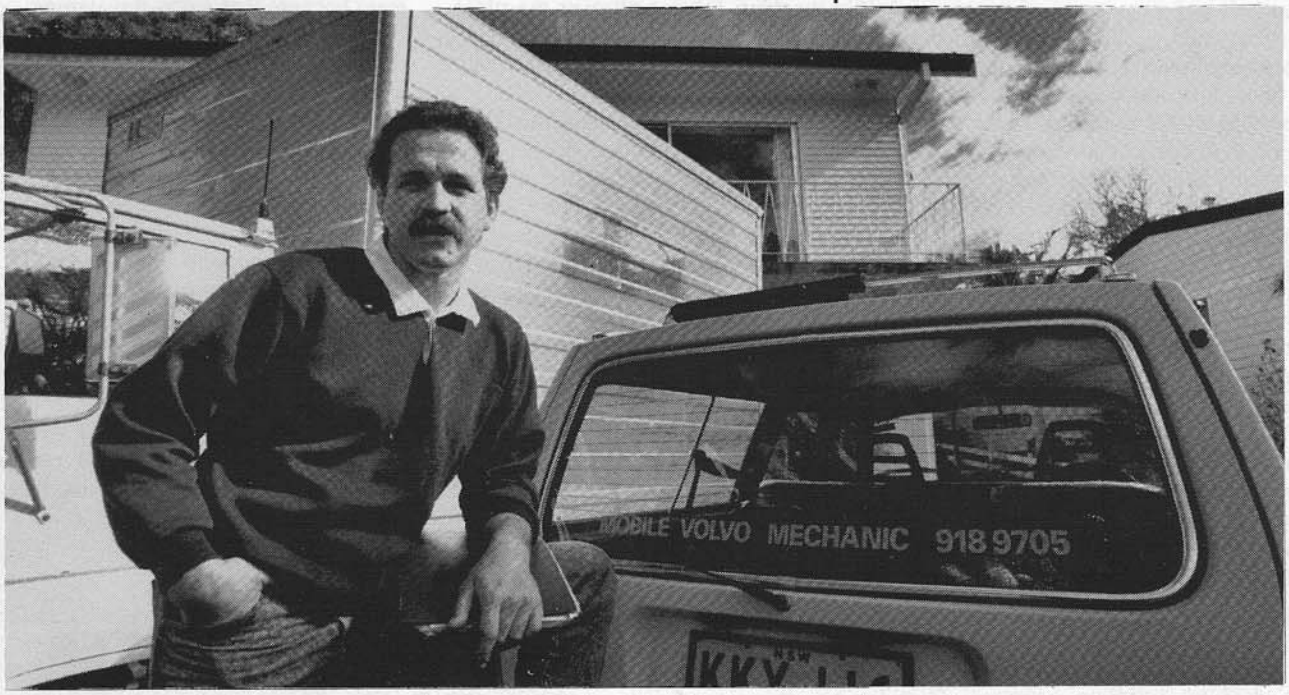

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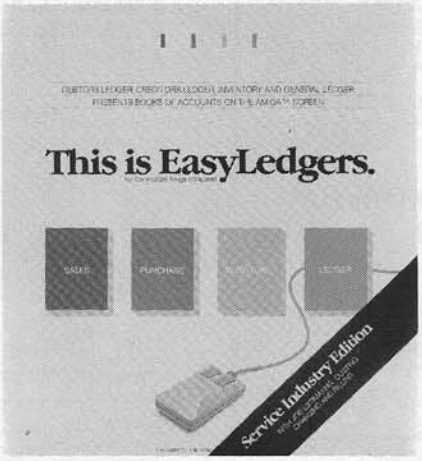

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where we're initially positioning it at. Again your readers are smart enough to know it'll do all kinds of other things as well, but from our standpoint, the revolutionary part about it has been a new category. It came about because of a lot of reasons.

First of all, we knew we could put these technologies together. If we did, what would we do with it? Do we just make a CD ROM drive that goes on the Amiga? Sure there is a market for that. But looking at Commodore's place in the marketplace on a global basis, and at the business opportunities, we could see that the penetration for example of home computers in the United States is about 25% of the homes.

Pretty soon, you're running out of homes where people can afford or are willing to have a home computer. A certain percentage of people in the world, although I hate to admit it, won't use a computer if you give them one. And naturally, like any other company, we're looking at ways to grow the business.

We remember the days when 64's were connected to televisions - now everybody buys a monitor for them, but then they were connected to televisions, they were in the living room. Vic 20s were always connected to televisions, they were in the living room, they had all this spaghetti cabling all over the place, they made a terrible mess. But that's where they were and people used them in a different way.

It was sort of a spontaneous thing that you picked up, other people were looking over your shoulder and so forth. So we thought maybe we should look at creating a technology or a marriage of these technologies that would give us a product that we could sell to these people who are afraid of computers, and maybe start to get them to feel comfortable with them, but at least get them to take advantage of all the things that we who use them know and love. Also to get that technology back into the centre of the family's lifestyle connected to the television.

As much as we hate to admit it most family households do revolve around TV - you know in the old colonial days it was the fireplace; that's where the cooking was done and that's where you sat to keep warm - today it's the TV. So that's how we devised something that looks like the VCR or a piece of stereo equipment because that's non-threatening.

We used these five inch round shiny things called compact discs because most people these days are familiar with them and it is as easy to use from the user standpoint as it is to change the channel on your television with the remote. And that was the basic design premise; it had to be easy to use, you didn't have to know how to type to use it. It had to be something that was plug and go and that's how the thing came to be.

Not everybody in the company understood what we were trying to do when we started out. It's hard to take a computer company and say we're going to create a product and not call it a computer. Fortunately our chairman, Irving Gould, understood. ❑

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A2000 or A500: That is the question

Is the Amiga 2000 just an overpriced Amiga 500 in a bigger box? Still trying to decide which Amiga to start out with? Peter Friend explains some of the whys and wherefores in choosing the system that's right for you.

This is not a hardware review of the A500 or the A2000. It's a look at the differences between them, especially for people who are wondering which model to buy or whether to upgrade.

When the A2000 first appeared, I assumed it must be some sort of amazing turbo-powered SuperAmiga. Why else would it be a thousand dollars dearer? I was greatly puzzled to learn that it had exactly the same CPU, memory, graphics and sound chips as the A500, and ran the same software at the same speed. Was it a devious con trick, an expensive toy for suckers with more money than brains?

It's now 1991. Prices have dropped, but the cheapest A2000 is still around a thousand dollars dearer than the cheapest A500. Yet I've upgraded from an Amiga 500 to an A2000. What made me change my mind?

Vital statistics

These days, a standard A500 and A2000 still have identical mouse, joystick, video, parallel, disk drive, audio, serial, and composite video ports, and identical CPU, graphic and sound chips.

The standard memory on an A2000 has increased to one megabyte, compared with an unchanged half megabyte on an A500. Upgrading an A500 to a full megabyte is easily done, but will cost you a little under $100. If you're planning any sort of serious work on your Amiga, a full megabyte is strongly recommended. More and more software packages (and even games) need a megabyte to run, while others have some features disabled when running on a half megabyte machine.

The physical design of the two Amigas is very different. The A500 is just a large bulky keyboard with all the electronics inside it, whereas the A2000 has a separate system box and keyboard and looks more like a traditional PC. They actually take up about the same amount of desk space, because the A2000's system box can sit under the monitor.

The A2000 looks a lot tidier, because nearly all its cables connect neatly out of sight at the back of the system box, whereas the A500 can end up looking like a tangle of spaghetti. Because of all those cables connected to it, the A500 keyboard is also rather unwieldy to move around. If you sometimes want to move the keyboard to one side, or like to type with the keyboard sitting on your lap, the separate keyboard of the A2000 is a lot more convenient.

Feel the difference

But the most important difference between the two Amigas is the almost invisible one: expandability.

The A500 has just two expansion ports. The most commonly used is the internal expansion slot, inside the little door on the underside of the keyboard. This is where most memory expansion boards plug in, as well as things like the KCS Power PC board.

On the left side of the keyboard is the external expansion slot. As the name implies, things plugged in here sit mostly outside the A500, so this slot is used by things too bulky to fit in the internal expansion slot, such as the A590 hard disk.

The A2000 has no fewer than nine expansion slots of various types, all internal. There's a video slot, mostly used for genlocks or Flicker Fixers. A co-processor slot, for boards like the 2620 (a 16 MHz 68020 with maths co-processor and 2 Mb of 32-bit memory) or 2630 (a 25 MHz 68030 with maths co-processor and 2 Mb of 32-bit memory).

And three Amiga slots, two Amiga/PC-AT slots, and two PC-XT slots. The PC slots are mostly of interest if you're using something like the BridgeBoard to run PC software. But even if you think 'PC' is a swearword, you still have five Amiga slots to play with. Hard disks, memory expansion, modems, local area networks, digitizers, and almost anything else can plug in here.

Decisions, decisions...

So which model should you buy? It depends entirely on what you're planning to do with your Amiga.

If you're wanting to play games, do simple word processing, or teach yourself BASIC, then an A500 is perfectly adequate. The same goes if you're on a tight budget, or are buying your first ever computer without any clear idea of what you'll use it for. Why waste money on expansion slots you'll probably never use? Perhaps you might buy some memory expansion one day, or even a second disk drive, but these will happily plug into an ordinary A500. In fact the money you'll save by buying an A500 will more than pay for that memory and disk drive.

On the other hand, are you interested in 'heavy duty' applications like animation, desktop publishing, video and sound digitizing, C programming? If you look at a software package and it says 'minimum of one megabyte required, hard disk recommended', think very carefully about what expansion hardware you'll need on your system. If you've already got a memory upgrade in the internal expansion slot and a hard disk in the external expansion slot, you could be in trouble if you want to add something else later.

What's more, a completely 'full' A500 will cost you more than an equally powerful A2000. Disk drives, hard disks, and memory expansion are usually cheaper for an A2000 than an A500. This is partly because external A500 expansion naturally needs boxes and cabling, to protect you and your Amiga from electrical damage. For internal expansion, the larger size of A2000 boards allows use of standard (ie: cheaper) components. Some A500 internal expansion boards are marvels of miniaturisation, but such clever design often means higher development and manufacturing costs.

And some types of expansion are dif-

ficult or impossible to find for an A500. Very few companies offer 68020 or 68030 co-processor boards, and I haven't seen anyone selling an A500 equivalent of the Flicker Fixer, for example. (*ICD have just released such a device - See review in this issue.*)

After reading the above, you may feel more informed but still worried about making the wrong choice. Don't lose too much sleep over it. If you buy an A500 and later discover an A2000 was what you really needed, upgrading is easy if not cheap. Second-hand A500 systems are currently selling very readily at between two-thirds and three-quarters of their new price. Sure, you lose a few hundred dollars, but at least you're not stuck with a machine you can't use and can't sell. (Hands up everyone out there with a worthless 8-bit computer gathering cobwebs in the wardrobe.)

On the other hand, if you buy an A2000 and later realise that an A500 was all you needed, smile through clenched teeth and don't tell anyone. The sale price of your A2000 is unlikely to leave you with much spare change from the purchase price of a new A500 system.

Upgrading - my experiences

I was one of those A500 users starting to run out of expansion space. One megabyte wasn't enough to run my planned three-hour *Deluxe Paint III* animations. And the twenty megabytes on my A590 was filling up more quickly than expected. I was vaguely considering a two megabyte RAM upgrade for the empty sockets in the A590, but knew it was only a stop-gap solution.

But then, at a computer exhibition, I happened to see an A2000 with a Flicker Fixer and a VGA monitor. Wow! Now I knew why the interlace graphics mode was put on the Amiga. The quality and clarity of the 640x480 screen was astonishing. I'll talk about the Flicker Fixer later, but basically it gives you a beautiful steady interlace screen instead of the horrible flickery interlace screen you get on a standard Amiga and monitor.

Because I spend long hours at the Amiga, a rock steady interlace screen means improved productivity. Twice the number of horizontal screen lines means twice as many lines of text on screen for example.

I was hooked. After saving furiously for a few months, I sold the A500 and ordered an A2000 with Flicker Fixer and multisync monitor.

Note that I said 'ordered', not 'purchased'. To my innocent surprise, the dealer didn't have half a dozen A2000s sitting in the back office waiting to be sold. Unlike A500s, which can be and are prepackaged in cartons all ready for customers to take away, A2000s come in many different options. It's unlikely that your dealer will have all the bits in stock for the particular configuration you require. Expect a wait of around five business days, particularly if you want any unusual boards.

Eventually my new system arrived, and after a brief fight with a defective keyboard, it was all connected and running.

Installing software on the hard disk was predictably painful, but no worse than for any other hard disk. The only unexpected catch was discovering that the hard disk was split into a small parti-

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tion called DH0: and a very large Fast File System (FFS) partition called FS0:. This confused a few install programs which valiantly tried to put everything onto DH0: and naturally ran out of space.

This particular hard disk partitioning structure is due to the A2090A Hard Disk Controller, which needs to boot from a non-FFS partition. When the new A2091 replaces the A2090A in new A2000s, the entire hard disk will be FFS, as is already the case with A590s and some other models.

Fixing Flicker

As you might guess from the name, Flicker Fixer is a board which gets rid of that horrible flickering in interlace graphics mode. It's a very popular upgrade for A2000 owners. Commodore like it so much they're importing it from America and selling it at almost cost price. That's right folks, Commodore will sell it to you at less than the American retail price. Gasp, shock, horror. Why are they doing this? Because Flicker Fixer will certainly lead to increased A2000 sales, and quite rightly so.

Before you rush out and buy one though, there are two minor catches which might adversely affect you. Firstly, you can't connect your old 1084S monitor to Flicker Fixer, as it needs either a VGA or multisync monitor. You don't need to throw the 1084S away though; the normal Amiga video port is unaffected, so you can have two monitors attached (and even running simultaneously) if you want to.

A2000 with dual 3.5" drives & 1 x 5.25" drive

The other catch is due to the way Flicker Fixer works internally. It refreshes every horizontal scan line on the monitor screen 50 times a second, thus giving a perfect steady picture, unlike the standard Amiga interlace video signal, which refreshes each alternate horizontal scan line every alternate cycle, ie: 25 times a second. However, Flicker Fixer is still only being fed the same data as the standard interlace signal, so it can still only change alternate horizontal scan lines on alternate cycles. Confused? All it means is that if a screen object is moving faster than 25 times a second, its alternate horizontal scan lines (which are only being changed on alternate cycles) go out of synchronisation, and the screen object appears to spread out slightly into two ghost-like objects.

If you're running software that doesn't have ultra-fast moving graphics then you won't even notice this. But if you're an arcade games buff, you may be immensely irritated at the sight of bullets and fast aliens suddenly ghosting strangely on screen.

Because arcade games all run in non-interlace mode anyway, the problem would be solved if you could still display the standard Amiga video signal when you wanted to play games, but use Flicker Fixer when you wanted to do 'serious' stuff. And with a little thought, this is quite easy to arrange.

I mentioned above that you can't use the 1084S monitor with standard Microway Flicker Fixer, although you can still use it with the standard video port. So if you already own a 1084S, just keep it when you buy Flicker Fixer and a VGA monitor. You can then run either monitor (or even both), depending on what software you want to run.

But if you don't already own a 1084S, it's rather expensive to buy one just for playing games. So instead, when you buy your Flicker Fixer, be sure to buy a multisync monitor rather than an ordinary VGA monitor. Multisync monitors can accept and display a variety of video signals, including both VGA (which Flicker Fixer produces) and analog RGB (which the standard Amiga video port produces).

You can plug the monitor cable into the standard video port when you want to play a game, and into the Flicker Fixer port when you want the interlace graphics (although note that you will need an adaptor cable to do this, as the two ports have different sorts of plugs). Apart from the minor nuisance of cable swapping, this is a simple and convenient solution, giving you the advantages of both graphic modes.

The sound of silence

There is one other surprise in store if you get a VGA or multisync monitor; because they're designed for boring old PCs, they don't have sound input sockets or speakers. Being used to the 1084S, it never occurred to me that my new monitor might have no sound facilities, and I was genuinely surprised when I couldn't find any audio plugs.

If you only use your A2000 for business purposes, this may not be a problem. But if you do want sound, and you probably do, you'll need to connect your Amiga to some sort of sound system. Many music buffs keep their Amigas connected to their stereos all the time, even if they have 1084S monitors. Alternatively, you can buy a cheap mini-amplifier and extension speakers, available in many electronics and stereo shops. Either way, you'll notice vastly improved sound, because the speakers are larger and better quality than monitor speakers. The stereo effect, barely noticeable on monitor speakers, also improves dramatically.

The choice is yours. Only you know what you will be using your Amiga for, so only you can decide which model and what expansion you should buy, both now and in the future. The most important thing is planning. Don't just wander into the nearest computer store and buy the first thing a salesperson shows you. Think about what you want to do with your Amiga. Games, word processing, graphics, animation, financial accounting, music composition, sound digitizing, desktop publishing? Discuss your plans with your dealer. If they can't or won't help you, go to a dealer who can and will. Both the A500 and A2000 are great machines, but you'll save yourself money, time and heartache, by getting the model that's just right for you. ❑

FLICKER Free Interlace

If you're tired of the jitters, can't stand wearing dark glasses any longer, and can afford to upgrade your system, there are now several options to give those interlace blues the flick. *Warren Price* explains.

The Amiga is not only a great machine, it is also very versatile and pops up in some surprising places. However the standard workbench screen has been a drawback for some applications as it lacks the resolution needed for high quality use in DTP or CAD.

While this deficiency can be minimized by using the high resolution interlace mode, one problem is exchanged for another - the dreaded interlace flicker. This flicker occurs when the Amiga doubles the number of horizontal display lines in a successful endeavour to increase resolution.

A number of years ago Microway Tech produced a video board that went a long way to solving this problem for A2000 users by (to put it simply) taking alternate scan line signals and combining them into a single 31.5Khz output that is twice the frequency (and resolution) of a standard Amiga display. This solution was fine for those fortunate enough to be A2000 users but didn't do anything for other mere Amiga mortals. Besides that, as things developed on the software front the Microway unit didn't handle the overscan modes that have become a frequent feature.

Until recently there was no hardware flicker solution for the A500. However there has been of recent times a growing number of A500 users who are interested in using their machines for either high end or semi-professional applications, who find the interlace flicker both painful and frustrating.

A new solution

Enter the Flicker Free Video board produced by ICD of Rockford, Illinois. After numerous phone calls hither and yon, I eventually managed to obtain a board. It arrived in its own well protected box from Maxdrive Systems, Toowoomba. A brief look at the 12 page manual revealed it was relatively straightforward to install.

I have heard that before you say - time did tell - so read on. The multi layer board is only 90mm x 80mm and is covered with mostly surface mounted components - very neat indeed. It seemed amazing that so much power could fit on such a low chip count board. Again, time would tell.

I must add at this point that the manual was adequate and outlined the few tools needed, a discussion of interlace flicker and how this device works in the Amiga. I commend ICD for mentioning that installation would void the warranty and does require some technical skill.

While this advice is certainly good and necessary, common sense and careful attention to detail should allow the average user to implement the manual's instructions. However "if in doubt leave it out" is probably a good watch word. Just ask your friendly techno head to do it for you.

Installation

The actual installation is as they claim, a breeze and doesn't require soldering or any other funny doo-dahs. I won't bore you with the details of opening the Amiga, suffice it to say that this step is indeed the hardest part of the whole operation. Next I located the 48 pin Denise chip and after taking notice of its orien-

Continued on p 28

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tation I carefully prized her majesty out and piggy-backed her on the FFV board as instructed.

So far so good. Seemed almost too easy, although I must confess I had to hold my tongue just right as I pushed the FFV daughter board pin extensions into the original Denise socket - user beware on this one. The kit gave the option of a long or short flat cable terminating in a D9 connector. This gives the user some appreciated flexibility in finding a permanent mounting spot for the connection to the outside world. Good one, ICD.

Operation

After carefully closing Ami I was keen to get to the real purpose of the exercise - the display. I wasn't disappointed! After switch on there it was on my multi-sync monitor - rock solid, clear and crisp. I started throwing all sorts of software at the machine. It quickly became obvious that ICD's claim of compatibility with all software and all Amiga screen resolutions is true, no kidding.

With *The Art Department* and *Deluxe Paint III* V3.25, I was able to try full PAL overscan - 768 x 576 didn't faze the unit or give any sign of trouble. Obviously the 3 megabits of on board RAM allow the Flicker Free Video to do its thing with ease and flourish without even scan lines being visible. I have no reason to doubt that it will live up to the manufacturers claim to be compatible with overscan screens as large as the Amiga can produce.

A big advantage of this unit for A2000/6802/30 users and the like is that not only is it compatible with both internal and external genlocks but it obviously leaves the only internal video slot free for whatever. Again, good one, ICD!

I have been using this unit now for two weeks and there has never been any reason to doubt its reliability. It certainly gives a rock solid, crisp display. In regular workbench mode however it does make text slightly more chunky but the absence of scan lines more than makes up for this.

The only real drawback to this unit that I can see is the need for an expensive multi-sync monitor. I may add that on my Everex EverSync 300 the display has a 1cm vertical border either side that is a little disappointing - this is a limitation of the monitor rather than the ICD unit itself. A trial with the Commodore 1950 monitor gave a full edge to edge screen display.

Applications

A-Max users will be interested to know that the Flicker Free Video unit gives a totally steady display. Furthermore, a quick trial with Colorburst (now that is a real mean machine) attached also revealed that these two units will co-exist very happily.

In summary I have been most impressed with this unit and have found that it lives up to the manufacturers claims. This unit certainly has something for everybody: display is extra good; installation is a breeze; it supports highest Amiga overscan and total software compatibility. For the future it leaves the 2000 video slot free. For Amiga 500 owners, there is no other deinterlacer available.

This is without a doubt a very well thought out display enhancer for all Amigas bar the 3000, which of course has its own deinterlacer. If you are serious about ridding your Amiga of the dreaded interlace jitters this unit is worth very serious consideration. Well done ICD and Maxdrive! The local price for the FFV board is $649. ❑

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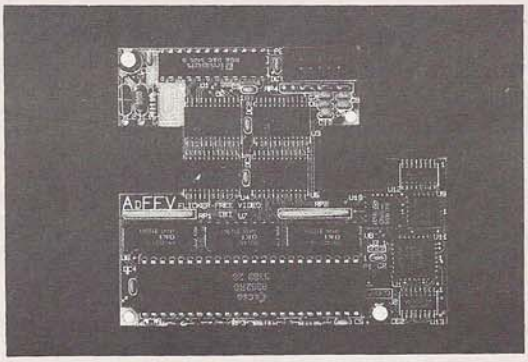

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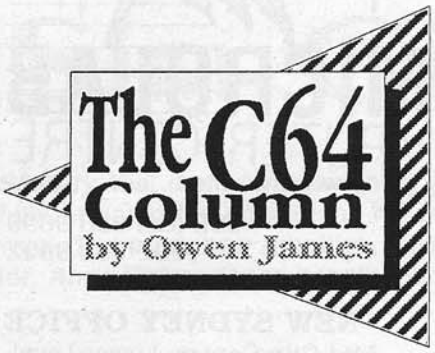

Speeding up Basic

Programs written in BASIC are usually slow in operation. By following some simple guidelines, however, you can quite dramatically improve the flow of your program. Below is a collection of suggestions for increasing the speed of your own programs.

Variables are faster and more efficient than literal numbers. You see when variables are defined, they are stored in a format that BASIC can use automatically. Numbers are read by BASIC one digit at a time and are then converted.

Your program will benefit most from this when the variables are accessed more than once. An example would be filling part of the screen with the capital letter 'O'. Your program might look like this:

```
10 FOR J=1 TO 600
20 POKE 1024+J, 79
30 NEXT J
```

Try this routine with a watch handy. My time was 6.8 seconds. Now try this modification:

```
5 A=1024:B=79
10 FOR J=1 TO 600
20 POKE A+J, B
30 NEXT J
```

You should see an improvement of over fifty percent.

Keep in mind that variables are stored in the order they're created. If you're going to use variable K the most, define it first. That way when BASIC checks to see the current value of K it won't have to look too far down the list. Commodore BASIC doesn't store variables alphabetically. If variable Z is created before A then Z appears before A in the list. The speed increase from using this tip is relative to the amount of variables in use.

If you want to set variables to zero, use the full-stop. BASIC interprets full-stops as zeros so long as they are not part of another number. For example, A=0 could be written as A=., but A=102 could NOT be written as A=1.2.

Of course if you have a lot of variables to set to zero you can use the DIM command. Normally the DIMension instruction is for dimensioning arrays, but if you leave out the usual brackets containing the array size it will set the variables to zero. For example, DIM A$,B,C$,D.

Something else to remember is that the (non-array) variable table that BASIC uses to keep track of variables resides above the table for array variables. If you have a program that defines a large quantity of array variables and then goes on to define non-array variables, you'll notice a fairly lengthy pause. This is because BASIC must transfer the array variable table down every time you wish to add to the non-array variable table.

Sound confusing? Think about a document in your word processor that contains four paragraphs. If you want to add a new paragraph in between paragraph one and two your word processor must first push everything beneath paragraph one down to make more room. This pushing takes time, hence the pause.

To get around this you should define all non-array variables (A$, B$, C, or whatever) first, then your array variables (A$(3), B$(8) etc). If unsure about what the variables are going to contain then give them a value of zero. That way they'll be part of the table and there won't be a need to push down the array table later.

Integer or floating point?

Are variables containing integer values faster than ones containing floating point values? You'd certainly think so. Over the years there have appeared some conflicting views on this in BASIC speed-related documents and articles. Some of my reference material suggests that BASIC 2.0's mathematics routines are designed exclusively for floating point variables and so integers are actually converted to floating point.

However, there are some that argue that since integer variables are more compact they can be dealt with faster (actually both types occupy seven bytes, but who's counting?). Either way, the speed difference between floating point and integer variables is negligible under most circumstances. Personally I'd get in the habit of using integer variables wherever possible as this is the norm in other languages and computers.

And a last point on variables. Don't use them with NEXT statements. BASIC remembers to go back to the last FOR (even in nested loops) and so using a variable after NEXT will just take up time while BASIC checks its current value.

Documentation

Another thing to avoid is unnecessary statements. REM is a good example. Even though lines beginning with REM are ignored, BASIC must first recognize the command. I normally produce documentation on paper, like:

```
LINES 1-100.....Set up display.
Variables B, F, G contain colour
values.
LINE 130.....Algorithm for
calculating tax, etc.
```

I find this to be much more efficient, and it even takes up less memory.

Speed also depends on the way the program is written. Clear, logical code will always be faster than 'spaghetti' code. Always plan a program before sitting in front of the keyboard. Write down a list of the program's objectives, and then break these into manageable sections.

From here, use a flowchart or pseudo-code to write these sections of the program. It doesn't have to be too detailed at this point. When you're happy that your plans are straight forward and represent what you want then start coding on paper. Continue to refine your program to make it as efficient as possible, using the above mentioned tips.

The actual construction phase should always be the shortest part of writing a program. Most of your time should be devoted to planning and testing it. Always make sure your program is well documented on paper. Keep a list of what lines do what for future reference. This will help immensely with debugging.

If your program is still too slow, analyze and find the parts that are holding

Continued on p32

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it up. Can they be refined any further? If not then find someone that can rewrite that part as a machine code routine for you. Or better, compile the program using one of the many BASIC compilers on the market. You can get a speed increase from between 30 and 40 percent by doing this. And if you're a real speed-demon add a Turbo Master CPU.

Letters

It's now time to throw it over to reader's questions and suggestions. First out of the mailbag this month is a letter from Mr D. Hill of Beechwood, NSW.

"Dear Mr. James, I'm writing to you in the hope that you may be able to help me with what may be a minor problem.

"I have a Commodore 64 and a Tandy DMP 106 printer. The printer has a serial and parallel inputs and emulates an IBM ProWriter in the parallel mode.

"At the moment we use the 106 with an IBM clone with some success, but I'd like to use it with the Commodore 64. Can I connect the two together in the serial mode - I have the connections of both - or will I need to buy an interface to go between the 64 and the DMP 106?

"The next question is will the old GEOS program operate the DMP 106 printer, or am I wasting my time and should I scrap the whole idea?

"I replaced a 5.25 floppy in my XT (360 KB) with a 40 meg hard drive, so I've now got a 5.25 drive spare. Is there any way I can use that drive as a second drive on the C64? Some parts must serve similar functions and there seems to be a 'standard' in drives for IBMs."

The Tandy DMP 106 is not what I would call a 'popular' printer and so finding a printer driver for it to work with GEOS would probably be the main concern. If GEOS is to be your most-used printing program then use the *geoPrint* cable. It's a cable that plugs into the C64's user port and the other end has a parallel port connection. Using the supplied printer drivers, GEOS re-routes printer output through this cable and converts it to a format the parallel printer can understand. This method is actually faster than using the serial port. The *geoPrint* cable comes with enough drivers to make it work on practically any parallel printer.

The cable will also work with cartridges that provide a Centronics interface. I run my MCS 820 using a geoPrint cable and the Final Cartridge III. I've found that it also works with the KA/43 Open System, which provides a software-based Centronics interface that works with many programs.

Failing this, there are many interfaces available to suit just about any requirement and budget. Briwall Australia offers a number of suitable candidates. Telephone them on (06) 288 0131.

As to your second question on disk drives, no I'm afraid you can't use non-

Continued on p34

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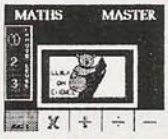

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C64 drives. The C64 doesn't contain the necessary routines to make a drive work by itself. The 1541 and compatibles are 'intelligent' drives - that is, they contain their own routines and processors for handling files etc. Your IBM drive doesn't. By using a C64 IEEE Interface Expansion Card, however, you can attach any IEEE disk drive, like Commodore's old 4040 or 8050. I haven't seen the interface card around for quite some time though.

Glenn Jones, of Buderim QLD, writes:

"In the ACAR Vol 8 No 6 I read about Vic-20's connecting to the 64 for multi-tasking or for a RAMdrive. Could you get the 64's operating system to 'see' and use the Vic's memory as its own? Can you use it with GEOS?

"We have monthly listings on the Amiga BBSs but never for the C64. How about a call for more 64 numbers? I have one which is at Nambour on the Sunshine Coast, QLD: (074) 416734."

First off I should say that connecting Vics to the C64 is simple enough, but getting them to actually communicate with each other is another story! The C64 can't recognize any memory other than its own without help. A solution would be to write a RAMDisk program. One of these appeared in an American magazine a few years back. It allowed you to utilize normally un-used C64 memory as a temporary disk drive. You could copy, scratch and run programs from this virtual drive. To use it with a Vic 20 would mean writing transfer routines to store and retrieve files. I can't see any direct method of getting GEOS to recognize it as an REU device.

As for multi-tasking, you'd need to 'hand feed' the Vic the data to calculate or whatever. It'd then need its own set of routines to handle it and pass it back in time for the 64 to use it. Not very elegant, but at least workable.

I'm always happy to print BBS numbers that support the C64, so get them in to me. Hopefully we should start seeing some more C64 coverage in the Communications column.

Tips and Tricks

Dave Seiler, of Millersoft Education Software, has sent us a great input routine to use in your own programs:

```
10 J=1:W$="TRANSFIGURATION"
20 PRINT CHR$(147) : PRINT TAB(30)"*
TO QUIT"
30 POKE 214,9 : PRINT : POKE 211,16 :
PRINT"SPELL"
40 PRINT : PRINT TAB(11)W$
50 PRINT TAB(11)" [2X CRSR DWN]
                  "
60 PRINT TAB(11)" [CRSR UP]_[CRSR
LEFT]";
70 POKE 198,0
80 POKE 204,0 : GET A$ : IF A$=""
THEN 80
90 POKE 214,22 : PRINT : POKE 211,9 :
PRINT
100 POKE 204,1 : IF A$="*" THEN
PRINT"[CLR]" : END
110 IF A$<> MID$(W$, J,1) THEN
GOSUB 160 : GOTO 80
120 AN$=AN$+A$ : J=J+1
130 POKE 214,14 : PRINT : POKE 211,
J+9 : PRINT "[WHITE]"A$;
140 IF AN$=W$ THEN 180
150 GOTO 80
160 POKE 214,22 : PRINT : POKE 211,9
: PRINT"SORRY THAT IS
INCORRECT!"
170 POKE 214,14 : PRINT : POKE
211,J+10 : PRINT "[WHITE]";:RETURN
180 POKE 214,22 : PRINT : POKE
211,11 : PRINT "GREAT STUFF
EH![HOME]":END
```

The POKE 204,0 in line 80 plots a fake cursor on the screen and POKE 204,1 restores the command.

The POKE 198,0 in line 70 clears the keyboard buffer of unwanted keypresses. The GET statement normally only hangs around for one keypress but by collecting the keypresses in a variable and looping the statement you can have it going until the desired result is achieved.

That'll have to do for this month. Until next time, you can drop me a line care of the ACAR, PO Box 288, Gladesville, 2111. ❑

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Word Writer 6

C64 owners know only too well that their machine is an excellent wordprocessor - especially at the price! One of the latest updates to the range of available programs is *Word Writer 6*. *Owen James,* our resident C64er, put it to the test.

Word Writer 6 is billed as being "The most complete word processing program ever designed for the Commodore 64". Well, after using it for a while I'd have to say that I agree. It now includes an 85,000 word spell check, 60,000 word thesaurus, built-in outliner, mail merge, and electronic card filing facility. And that's just for starters!

Word Writer is not a WYSIWYG word processor. Instead, you enter control characters for margin and style settings which only take effect when printing. Some may see this as a disadvantage. But those of you who have ever tried to type a document using *geoWrite* at anything faster than a snail's pace will appreciate the fact that WYSIWYG word processors aren't built for speed. *Word Writer*, however, will have little trouble keeping up with you.

It does provide you with an 80-column print preview mode, which gives a good approximation of how your document will look once printed. Styles like italic and bold text will only show up as being highlighted on screen. Still, this is enough of an indication to get an overall view of your layout.

Using fonts

One of *Word Writer's* best features is its ability to use a wide variety of fonts. *WW6* includes 10 fonts in 27 different styles, ranging from the ornate Old English to the elegant Ravinia. You are also given the Doodad font, a collection of 93 'mini-graphics' consisting of arrows, animals, semi-quavers and more. Sizes range from 9 point to an attention-getting 36 point for most fonts. You can even convert and use GEOS fonts, guaranteeing just the right look for that special document. When using FONT mode (more on this later) the characters print at a quality comparable to GEOS.

Graphics are another strong feature. You are provided with over 150 high-quality graphics of various themes. GEOS graphics can also be used providing they've first been converted from the Photo Album. Support is also provided for Doodle format pictures. Pictures won't be displayed on screen, just the identifying information. The advantage to this is that the screen can refresh faster, and your document uses far less memory.

Text importing from other word processors is good, though I did experience some problems. I tried importing various SEQ files containing no control codes with only limited success. Sometimes the screen showed "WORKING...", but after half an hour of no disk activity I decided to re-boot. A conversion utility for *geoWrite* Text Scraps is a welcome inclusion. You can also import files from previous *Word Writer* versions and most word processing programs. Underlining, italics, bold, super and subscript style information will be retained in most cases. Unfortunately, you must convert between formats using an external 'Install' program. A nuisance seeing there is no direct bridge between *WW6* and Install. At least the option is there, however.

Output

Word Writer 6 provides you with two printing modes: Text mode, for faster printouts using your printer's in-built font, or Font mode, using *Word Writer's* bit-mapped fonts. In Font mode your document is printed from disk, meaning your document must be saved and all relevant graphic and font files must be on the one disk. You cannot do multiple copies, linked print, or use *Word Writer's* mail-merge facilities in this mode, which I presume to be because of memory constraints. Unfortunately there is no REU support, so you're stuck with these limitations no matter what your setup.

There is support for up to two macro definitions. Macros allow numbers, words and even sentences that need to be repeated throughout a document to be quickly added. Once defined, just press CTRL 5 to paste it as many times as you like at any point in the document. A great time saver, but it'd be nice to be able to define even more.

Not just a Wordprocessor!

The Card file is one option that makes *Word Writer 6* unique. It is a database manager for names, addresses, catalogues, in fact anything you'd normally file away in a cabinet. Between three and 23 fields are supported, and information within these fields can be sorted, stored and quickly retrieved. Your Cardfile data can easily be manipulated using *Word Writer's* editor. Cardfile certainly doesn't look as pretty as *Pocket Filer*, for example, but it gets the job done and in my view that's what counts.

Cardfile data can be used for *Word Writer's* mail-merge facilities. *Word Writer* doesn't support IF... THEN... ELSE... like *geoMerge*, but it does allow information to be skipped if not required and entire lines to be ignored if there is no data to support it. To be honest I prefer working with *geoMerge's* LABEL method where data-list information can be called upon and used in any order throughout the document. *Word Writer* restricts you to using data in the order it was created and each data-line can be used only once. Timeworks' *Data Manager 2* and *Swiftcalc* can both lend their files to *Word Writer's* mail-merge.

The Outline Processor is an interesting feature. It is great for planning long documents and arranging your thoughts and ideas. You are given five levels for your outlines:

I. to XXVI
A. to Z.
1. to 99.

Continued on p40

Flicker Free Video™

With Flicker Free Video (FFV) and a standard VGA or multi-frequency monitor, any Amiga® 500, 1000 or 2000 computer can produced a high quality display, free of interlace flicker and visible scan lines. Installation requires no soldering or advanced technical knowledge and frees the video slot in Amiga 2000 computers for other uses. FFV is compatible with all software, works in low and high resolutions interlaced or not, and has no genlock conflicts. FFV uses a multi-layer circuit board and surface-mounted components, packing a lot of power into a very small space. Both PAL and NTSC are automatically recognized and fully supported. Full overscan is supported, not just a limited overscan. Three megabits of random access memory are used to ensure compatibility and overscan screens as large as the Amiga can produce.

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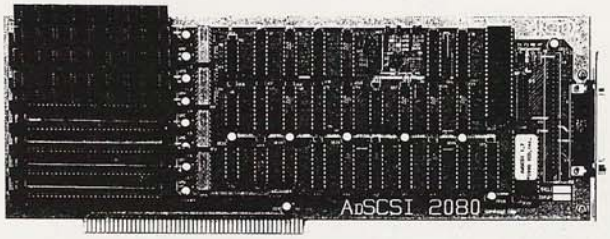

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a. to z.
1) to 99)
In outline form, these five levels might appear like this:
I. Main Topic
A. Subtopic
1. Subheading
a. Breakdown of the subheading
1) Further breakdown of the subheading

Word Writer automatically indexes these levels according to the letter or number appearing before the entry (A, 1, a etc.). When you edit your outline, *Word Writer* will reformat and re-index it to reflect your changes. Accessing higher or lower levels is as easy as pressing CTRL R and CTRL L.

Problems and complaints

As much as I like *Word Writer 6* I do still have some criticisms. My first complaint concerns the speed of the spell checker. *Word Writer* puts every unique word in your document into alphabetical order. It then begins by loading the sequential file containing all the 'A' words from disk and compares each of them against the alphabetised list until the first word is found. Very slow even in small documents.

Another complaint is that *Word Writer* is disorganized. During its six reincarnations, features have been added right, left and centre (pardon the justification joke!). It appears, however, that these have been added without much consideration for how they are accessed. There are two different ways to get to the print window: Commodore key + P, which is logical enough, but you can also use CTRL 9. Why? To insert a character you can use either Commodore key + INS, or SHIFT + INS. Similarly, to quit you can use Commodore key + Q, or CTRL 8. Why have two separate ways to access the same function? This only adds to confusion.

I like *Kwik-Write's* method of selecting functions such as load and save. From the edit mode you could press F1 and *Kwik-Write* would present a menu screen allowing you to simply press L to load, S to save, E to edit, etc. There's no awkward keypress sequences to remember and everything seems logical. *Word Writer* is an excellent and very capable word processor, but I feel it is let down by not being organized as well as it could be.

Also in the criticism department is that tabs don't work with fully or right justified text. As well, the method of selecting left, right, or full-justified text is needlessly long. Where a /J would have been enough to select full justification, you are forced to type the whole word (/JUSTIFY).

Printing will only take place from the line the cursor is currently residing. While this is good for getting a hardcopy of just sections of the document, it becomes easy to make mistakes because no warning is given. My final complaint is that preview mode isn't as detailed as it could be. While it's nice to have an 80 column preview mode, you can't see bold and italic text, and you have practically no idea where the boundaries for a graphic will be when printed. It would be better to have the outline of a box roughly demonstrating where the image will appear.

Word Writer's manual is nothing short of excellent. It contains a Quick-Start Mini-Manual to get you going straight away, a detailed reference section, and appendixes containing a glossary and a dot-matrix printout of every included font. There is a separate supplement for *Word Writer 6*, but the changes since five are fairly minimal and probably wouldn't warrant a total rewrite of the manual. You are given two keyboard overlays which is very useful for remembering the keypress sequences for each function.

On the whole, *Word Writer 6* is an excellent package for anyone serious about word processing. Being non-WYSIWYG may put some people off, but anyone wanting a word processor that can keep up with them should look no further than *Word Writer*. ❑

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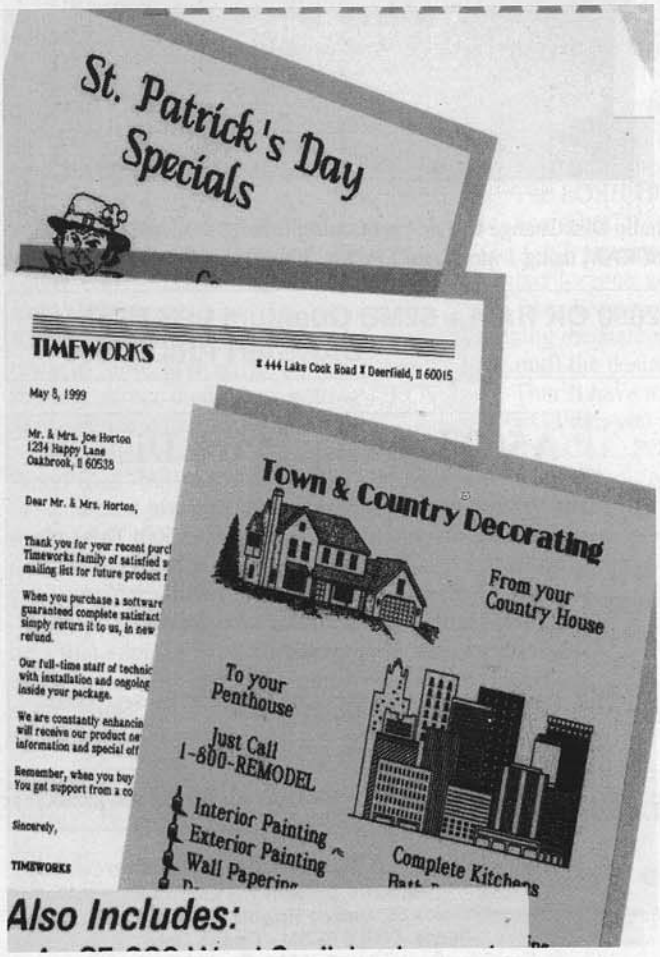

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The Geos Column

by Owen James

Using Paint Drivers

Paint Drivers are a pretty amazing feature of GEOS. They allow *geoWrite* documents to be saved as *geoPaint* files. "So what?", I hear you asking. Read on and find out why they are so useful.

Paint Drivers are really little more than a glorified printer driver. They do, however, have one important difference. Instead of the output going to the printer it goes to a disk file in a format that *geoPaint* can use.

The first and most obvious use for doing this is for graphic artists needing neatly formatted text, and access to *geoPaint*'s tools at the same time. Of course *geoPaint* does offer a Text tool, but you must admit that it's not as easy to write with as *geoWrite*.

With Paint Drivers you can type and format your text in *geoWrite*, with correct margin settings, and import it directly into *geoPaint* for enhancing and adding graphics. Add a touch of colour, stretch and shrink your text, even produce professional looking layout for it. Once imported, *geoPaint* treats the text as just another bit-mapped image, not as a series of characters. This means that you can apply any or all of *geoPaint*'s tools to it.

Another use for Paint Drivers is desktop publishing. Yes, you heard me right! The second type of driver, called Paint Overlay, can print multiple *geoWrite* pages to the one *geoPaint* file. Have a flip through this magazine. You'll notice that nearly all of the pages are split into columns, possibly two or three per page, containing text.

How can we emulate this using nothing more than *geoWrite* and the Paint Overlay driver? First of all you'll need to have the Paint Driver file on your work disk, and your printer set to Paint Overlay. From here, load the document you want printed into *geoWrite* and change your right margin on page one to a setting that's slightly less than half the page width. *GeoWrite* will take a second or two to realign your text for the new margin setting.

A similar idea is used for page two, but instead of the right-hand margin being moved to the left, the left margin is moved right. Make sure it's just beyond the halfway point so that it doesn't overlap the left column when it's 'printed' to disk.

You may need to do some editing and arranging to get the column on page one and the one on page two to line up correctly at the base. Once this is done, and everything is neat and generally to your liking, you can print in the normal way.

If everything went right (and you had enough disk space) you'll find a new file icon waiting for you on the desktop. It will be named OVERLAY and a double-click on this will bring up *geoPaint* with your new two column document loaded and ready.

Once in *geoPaint* you can really start being creative. Add an eye-catching heading, draw a dividing line between your columns, even add a cheerful graphic symbol to where it will do the most good.

Working with Paint Drivers won't restrict you to just two columns of fairly ordinary text. You could just as easily create three or more columns. Just follow the above guidelines and make the additions when needed. Graphics could also be used to spice up the document. Either leave space in your document to add them later, or if they can fit within the width of one column, import it into *geoWrite* as you normally would before printing.

I can guarantee your first few attempts will be total flops. You'll run out of room on disk, your columns will be different lengths and widths, your cat will chew the disk just as you're ready to print, and finally, just when you think everything's gone right, you'll notice a spelling mistake that you know your English teacher just won't ignore. Working with Paint Drivers is no task for the faint hearted. It's a challenge, but usually a rewarding one.

More on RAM Expansion

Dennis Connell, of West Hindmarsh South Australia, has sent me a brochure from Melvin Montgomery of Texas, USA.

Melvin makes REU expansion boards for the Commodore 64. For example, using his circuit boards you can take a 1750 or 512K 1764 up to two megs, a 1700 to 2 megs, a 512K GeoRam up to 2 meg, and a 1 meg GeoRam to 2 megs. He can even provide you with a heavy duty power supply for $US30.

Melvin also has two models of real time clocks available. Great for GEOS users that couldn't be bothered setting the time with each re-boot. Anyone that would like some more information can contact me for a copy of the information sheet, or get in touch with Melvin direct. His address is 1504 Amherst Drive, Plano, Texas 75075.

Dennis also has some help requests. If anyone can help please contact me.

"Has anyone fitted an external Back-up power supply to a 1750 REU? It should not be all that difficult but is it worthwhile? For my purposes I think it would be as I use GEOS most of the time and would love to have it ready and loaded at all times. Of course the Configure file would have to be in there to program the drives after power-up. Also the empty socket in there can be used for a 256k Eprom but I have not heard of it ever being used.

"Has anyone had success using a Cartridge Port extension cable? I have made several with various types of Ribbon, Data, IDC, Shielded, long and short cables. They all work up to a point but suffer from System Errors too often to be reliable with GEOS and the 1750. The only thing I have heard about them is that they don't work over about 12 to 14 inches but I have made them as short as six to seven inches and still have problems. Anyone have any suggestions? I notice they used to be advertised regu-

larly in the U.S. until about 18 months ago, so I am assuming that there are problems with them and they have been scrapped.

"The GEOS manual suggests that enhancements such as underlining, italics, bold etc. should be available in NLQ print mode - Commodore 10 font - NLQ spacing etc. I can't get it with my STAR NX1000 colour with Xetec Super Graphix Interface and Star NX1000 Rainbow print driver with GEOS V2, or any other print driver. The same problem existed with my last printer NX1000C (CBM serial interface). Has anyone succeeded here? I don't think it can be done, but would love to know if anyone has found the secret. GEOS overrides the 'lock-in' modes on the Star control switches, so looks like a better print driver is needed."

The empty socket inside the 1750 was put there for future expansion. Berkley Softworks (now known as "GeoWorks") had indicated their intention to put GEOS on a ROM that would fit in that empty socket about two years ago. As yet, we're still waiting.

Extension cables for the cartridge port are unreliable at the best of times. Since most people only want them for more convenient placing of cartridges etc., I usually recommend something along the lines of the Aprospan 4 slot cartridge holder. Not only are cartridges more easily accessible, it can also hold your favourite four at once. Of course it might prove to be too awkward for using with an REU.

I'm afraid it's only bad news on the Star NX1000. There appears to be no direct way of stopping GEOS from overriding your printer's settings. Can anyone tell me different?

Hints and Tips

GeoTips are in short supply this month, but here's a quickie for *geoWrite* users:

If you've ever needed to insert a graphic into a *geoWrite* document you would have found that it is automatically centred on the page. However, if you would like it to be either on the left or right-hand side, just change your margin settings for the area that you want the graphic to appear. It will then be placed between these two new boundaries.

That's about it for this month. Remember, I'd like to hear from you. Send your geoTips, questions, GEOS PD software, or anything else to me care of the ACAR, PO Box 288, Gladesville, 2111. Catch you next month. ❑

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Sim City Extras

SimCity, that multi-award winning giant of the software world, successfully bridging the education and entertainment worlds, is due for a revival. There are new graphics, new cities and an improved Terrain editor. _Anne Glover_ doned her city planning hat and put the extras to work.

No doubt in some spheres *SimCity* is still being heavily used. Certainly in the Social Science Departments and their equivalents in many schools around the world, *SimCity* is still up there with the best of them.

Most of the *SimCity* fanatics of yesteryear, operating in the home market, have now moved onto new challenges of strategic command. Now is your chance to give *SimCity* a new lease of life. Once again, you will be responsible for the traffic snarls, the mass migration or the wholesale destruction of a once great city. Experience the highs and lows of political life as public opinion responds to the taxation levels and the health of your city.

Generating this resurgence are the two new alternate sets of *SimCity Graphics* released by Dataflow. Each set contains three new scenarios within which you build your new city.

Alternate Architecture Set 1

The first set contains "ANCIENT ASIA" with a mythical mix of cultures from that continent. It has the same feel as the original, but in this one you will be building farms and Sumo arenas instead of industrial areas and rickshaw paths instead of highways. As Shogun you will face such natural disasters as earthquakes, typhoons and tsunamis with a few Chinese dragons thrown in for good measure. It is a rather uncomfortable mixture of Chinese and Japanese features with the Sumo wrestlers shoving it around alongside Chinese junks.

"MEDIEVAL" *SimCity* follows with villages and aqueduct systems as well as jousting tournaments. Witches, plagues and dragons make life less than idyllic. "WILD WEST" *SimCity* with its farmers, miners and cattle ranchers is the third useful extension and with the other two may breath some new life into your old Sim disk.

Alternate Architecture Set 2

This one covers "FUTURE USA" and "FUTURE EUROPE", with the E.E.C. as the most powerful economic group in the world (I wonder what happened to Japan?) The green movement is playing a major role in this future E.E.C. so it could be very useful in the classroom.

If you are sick of boring old Earth, you may then turn to a "MOON COLONY" (the third option on set two) and set up a research colony or perhaps a low gravity manufacturing centre. As you can see plenty of alternatives are provided in these two sets, but they will never be able to duplicate the excitement of the original simply because they are extensions and not a new concept.

We have all been there and done that; if you want to do it again in a different context, buy these disks. Schools will find them useful but must remind their students that they are not intended as accurate representations of their time but convenient compilations.

Naturally you will need your *SimCity* original with one megabyte of RAM. Installing the new set involves lots of jiggling and juggling of disks, so don't just give the students the disk and expect them to run with it; get the fiddling around out of the way first. Then they won't be frustrated.

Terrain Editor

If your appetite for power has already overtaken you and your ego has outgrown the role of Shogun and future city planner, then the Terrain Editor is for you. Here you are not limited to playing a dynamic leader but can simply play God!

The Terrain Editor allows you to place trees, rivers and oceans anywhere on the map. You can even design your own landforms. Look out for this one if your aspirations have overtaken the past, the present and the future.

SimSydney?

Back a little bit closer to home a number of bulletin boards have *SimSyd-*

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ney available for downloading. (Try Paragon 02 597 7477)

Another nice extension to your "Simming". Perhaps you imagine yourself winning Lotto or making your fortune through Amway, now you can plan your multi-million dollar estate on Sydney Harbour. *SimSydney* is a fairly accurate representation of Sydney (in the raw) that doesn't extend as far as my place of abode but will keep most people happy. This will be a great one for the Geography classes as indeed it could be for the History of Sydney classes too.

Conclusion

SimCity is one of those programs you can go back to again and again and always see or try something new. It may not have the gloss of its earlier years but these add-ons will will certainly inject some new life into your original program and will multiply its usefulness. ❑

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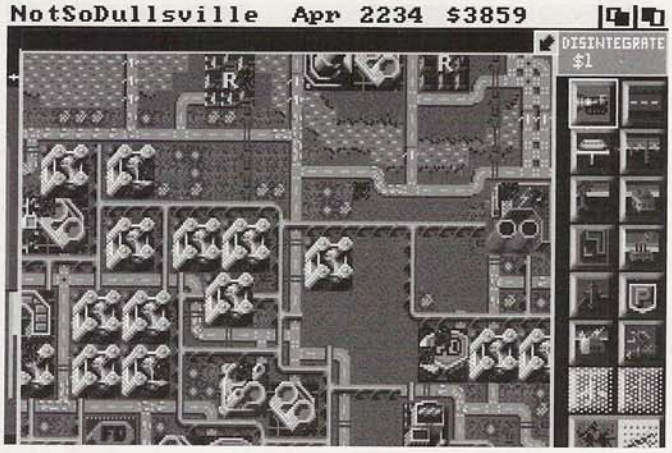
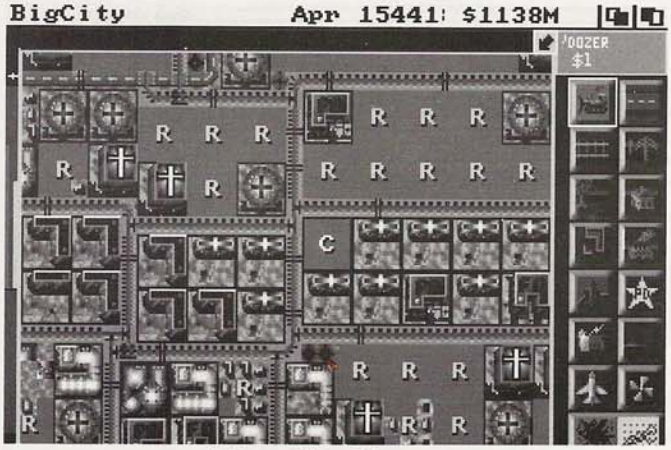


Sim City Europe



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Here's a spine tingling CDTV title that shows some real potential. Theatre critic Phil Campbell investigates the first in a whole new breed of game...

Psycho KILLER

A cold day, late in October, and you're driving along an unfamiliar English country road. Your mind wanders, lulled by the repetitive throb of the engine, so you don't really notice the bank of mist that envelopes your car as you cruise around a bend in the road. Suddenly, you jolt back into consciousness as a car looms ahead of you in the mist. Sideways on, it completely blocks the road. Stabbing for the brakes, you bring your car to a screaming halt.

The hair prickling at the back of your neck tells you something is wrong. Tentatively, you open the door and climb from your car, just in time to hear an ear-piercing shriek from the nearby field. Through the gloomy mist you pick out the shape of a figure. No. Two. A woman, running for her life. And a knife wielding maniac in pursuit.

This, my friends, is *Psycho Killer* - a friendly little tale brought to you courtesy of the Commodore CDTV. This is by no stretch of the imagination a NICE game. But as one of the first titles available for the newfangled CD - Amiga combination, it is certainly significant.

For starters, *Psycho Killer* is the first game I have ever played that opens with a cast list in the title sequence. It's a fact. This game features real, live actors - even though most of them end up dead. The title role is played by A.D. Watts, while Tracey Grech plays the part of the hapless female victim. True, it's probably not Academy Award material, but I'm sure their mums will be proud of them. And for a computer game it's a definite first.

Understand, though, this is not the elusive "Full motion video" that Commodore promise will soon be a feature of CDTV software. This is rather jumpy "stop-motion" animation, similar in quality to the earliest silent movies. Live action sequences are video-taped, around five frames a second are digitised, the narrator's voice track is recorded, and the resulting mountain of digital data is woven together into a game with a network of possible outcomes.

Animated sequences are linked by frozen scenes showing your current location. Arrow icons at the bottom of the screen invite you to move in two or three possible directions. As I step from the car, then, I have a choice. I can either head for the field in pursuit of the chap whose unfortunate childhood makes him do nasty things. Or I can turn back to the relative safety of my car. Take my advice. Option Two is far less noble, but so far it's the only way I know to avoid the cemetery scene.

But let's throw caution to the wind for a moment and head for the field. Using the CDTV remote controller, I point and click on the arrow icon. The scene changes. Now I'm in the middle of the grassy paddock looking North to a stream and a small footbridge. I point and click to walk to the bridge. And suddenly - well, let's be honest, there's a momentary pause while the sequence is loaded - but fairly suddenly, up jumps Psycho Pete from under the bridge, and lunges at me with a blood curdling scream.

Reacting as quickly as I can, I move my on screen pointer towards his advancing face and press the nearest button. My Reebok slams into his face and he sprawls on the ground, dropping his machete. Round One to the good guys.

Sadly, though, my success is short lived - and so am I. He runs away, I give chase. He hides in the trees. I find him. He throws a petrol bomb. I'm dead. Again.

Psycho Killer certainly isn't the best game I've ever played. But as one of the first examples of what can be done with a pile of data, a CD-Rom, and some souped up Amiga video and sound chips it's quite impressive - but I always end up dead. A bargain at $69.95. ❑

CDTV NEWS

New titles for early release

Good news for golfers. When Commodore's Gail Wellington demonstrated the prototype of Accolade's *Jack Nicklaus Golf* at the June CDTV launch in Sydney, she said it would be available by Christmas. Wrong! It's out now. Chalk this up as the first time in history a software title has been released before the projected date. Good one Accolade!

CDTV on government tender

Take it from me - every school library should have at least one CDTV. Preferably more. After all, everyone will be wanting to use it. With the Grolier Encyclopaedia already available, and Hutchinsons on the way, if nothing else it's a cost and space effective reference tool. The good news is that CDTV hardware is already included on the NSW Education Department Tender - so if your school's Global Budgeting Committee has got the funds, you can order everything you need immediately.

CDTV sales on the up and up

Sales of CDTV units are even better than expected - in fact, Commodore has already sold out of initial stock in Australia and New Zealand. Sales in Germany and the UK are said to be "very buoyant," with overall sales expected to reach 10,000 units by the end of this month.

CD feedback next month

Next month we're starting a new CD-FEEDBACK column - a chance for you to air your views and raise your questions about CDTV hardware and software. Send your letters to CD-FEEDBACK, PO BOX 23, MACLEAN NSW 2463, or fax them on 066 452060. ❑

Column

What does PHIL CAMPBELL discover when he puts the first CDTV encyclopedia on disc through its paces? Check it out...

The NEW Grolier ELECTRONIC ENCYCLOPAEDIA

When my Mum and Dad decided we should buy a secondhand set of Encyclopedia Britannica back in 1973, we had a problem. How could we fit all 24 volumes in the back seat of the car? And where would we fit it once we got it home?

Times change. Now I'm holding a 21 volume *Grolier Encylopaedia* in the palm of one hand. It's *The New Grolier Electronic Encyclopaedia*, the first full encyclopedia available for the CDTV.

In any incarnation, the American *Grolier Encyclopaedia* isn't quite a match for the time honoured Britannica. But the CDTV version adds plenty of features to make up for the difference.

Imagine for a moment an Encyclopedia with sounds. Bird calls, for example. Choose a bird by punching in its name on the index screen, then sit back and wait a moment while the CDTV finds every reference to your favourite bird on the entire disk. Try "Finch." A list of birds in the finch family appears, including headings marked "Pictures" and "Sounds". Choose the Sound option and you'll hear the twitterings of a genuine finch - choose the "Pictures" and you'll see a colour picture as well. That's a trick your musty Britannica would have a little trouble matching.

There's more. Remember the words "That's one small step for a man, one giant leap for mankind"? You can hear them as often as you like, though I guess once or twice a day is probably enough. Then there's John F. Kennedy's "Ask not what your country can do for you" speech - well, the best 30 seconds of it, anyway. And what about Martin Luther King's immortal "Ahh had a dream"? It's included too, though again only the most famous lines.

This is multi-media at its best. You don't just see pictures of these guys and read about them - you can hear them as well. The impact is dramatic, though the sound selections on the disc are limited.

Even more impressive is the CDTV's ability to cross reference ANY word in ANY article on the disc. As I browse through the article on Martin Luther King, for example, my curiousity is aroused about the original Martin Luther.

To find out more, I simply move the arrow pointer onto the text area of the screen until it highlights the word "Luther." Press the button, and moments later there's a list of 27 items in which the name "Luther" appears. One is devoted entirely to Martin Luther, so I point and click. In moments, the information is on the screen. "Martin Luther was a German theologian and a major leader of the protestant reformation. The son of a Saxon miner, he was born on November 10, 1483. He entered the University of Erfurt when he was 18 years old."

Now I'm the first to admit that my knowledge of geography is less than rudimentary, and when I studied history as a lad it was a source of great frustration. Where, for example, is Erfurt? And what sort of place is it? Three clicks later I find that Erfurt is located in East Central Germany on the Gera River. The current population is around 214,000, and rainfall averages 508mm each year.

Okay, I'll admit it. I didn't need to know that. But finding out was fun, and a mental picture of young Luther running to his lectures in raincoat and gumboots adds a bit more life to the story. In essence, the CDTV makes browsing so easy that you will find yourself learning in a much less structured manner - more breadth, though perhaps at the expense of a degree of depth.

The New Grolier Electronic Encyclopedia is the first of many reference works slated for release on the CDTV. And it's very good. Even so, there are limitations. Sure, the disc contains the equivalent to 21 hardcover books, but you won't find EVERYTHING you need. Not by a long shot. When you want a picture of Elle McPherson, it won't be there. When you want to listen to Gough Whitlam's famous speech on the steps of parliament house, you won't find it. Six hundred megabytes of data storage is big - but not that big.

Having said that, there's one feature of the Grolier CD that's priceless - it actually makes learning fun. *The New Grolier Electronic Encyclopedia* will retail for around $599 - it's cheaper than the paper version and takes up a lot less space. ❑

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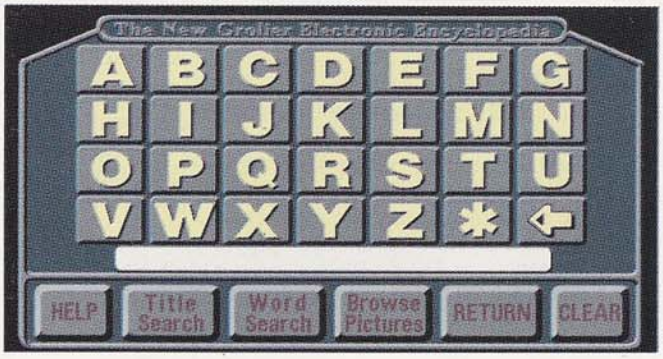

Coming to Grips with the Amiga's CLI
A Tutorial for Beginners - PART 14

by Andrew Leniart

It never occurred to me when I started this tutorial that it would go on for as long as it has. Over 12 month's worth now, still going strong and still finding letters of feedback and asking for help in the post box every week.

A while ago I received an interesting letter from Keith Cartwright in Cremorne. Keith had written in for some help with Kindwords and included an excellent reference index he had compiled on the whole series of tutorials since the first issue. With his kind permission, I am including it in this article. Those that have been collecting the series from the start should find this very useful. Thanks Keith.

Hints and tips disk

Those of you that don't have the whole series of articles but would like to, can order back issues from ACAR for a very reasonable price. Look for details in this issue. Also keep watching these pages for news on availability of the Amiga Hints & Tips Disk which I am currently working on.

The disk will be self booting and will contain all the hints and tips that have appeared since the start of this tutorial in an easy to use fashion and more. More info can be gotten by writting to me direct at my post box or by sending NETMAIL via BBS to my bulletin board system mentioned a little later on in this article. Okay, on with the show..

Commenting files

Last issue I spoke briefly of file comments (or notes). But what's a file comment? Quite simply, it's a short note which can be up to 79 characters long that you can attach to any file for various useful reasons. Here is an example of what I mean.

Open up a CLI and change directories so that you are in your "C" directory. Using the list command which we discussed last issue, enter the command "LIST ED" and press return. You should end up with something similar to the following.

```
Ed 19564 --p-rwed 28-Mar-89 18:09:58
```

Now we should all know from last issue what all that info means, but we can have even more information displayed to us when we list a file if we `comment' that file with the help of ...

Filenote

This command has helped jolt my memory on many an occasion. Quite often when sifting through PD disks, I would come across a nifty little command that I would throw in my C dir with all the other commands on the workbench disk thinking it will be useful one day.

Trouble is, two or three months later when you eventually think you need it, you can't remember which one it was. You could avoid this problem by keeping extra commands you find in another directory and include a path to it in the startup-sequence, but I like them all in the "C" dir where I believe all good commands should live. Because of this madness of mine, I comment nearly all of the files in my "C" directory so when I do a LIST ED, I get this...

```
Ed 19564 --p-rwed 28-Mar-89 18:09:58
:Commodore supplied text editor. Not
very user friendly...
```

The text you see after the colon is a comment I put in with the help of the Filenote command. How do we use it? Let's have a look at its command template by typing in..

```
Filenote ?
```

The Amiga should respond with something like...

```
File/a,Comment/a:
```

Hitting return at this point should give you this...

```
Usage: Filenote <filename> <"Your
Comment Here!">
```

As you can see, usage is simplicity itself. So if you wanted to add the same comment to your ED file that I have, then you would do it like so..

```
Filenote ED "Commodore supplied text
editor. Not very user friendly.."
```

and hit return at the end. An important thing to remember is to always enclose your comment with quotation marks if it has spaces in it like our example above. You can also use this feature to help yourself remember how to use any command or program by putting in little bits of information that will help you along.

Now if you ever want to find anything, all you need do is go to that directory and just LIST the whole lot by typing `list' on its own. Need help on a command? List it and read the helpful comment you made when you learnt it. A top idea, experiment with it.

Assign

Not a great deal has been spoken about this command, yet it is used every time you insert your workbench disk at the hand prompt via the startup-sequence. So what does it do? Let's have a bit of a squiz at it and see.

As always, the first logical step is to have a look at its command template. Type Assign ? and you should get something like this.

```
Name,Dir,Etc/...,LIST/s,EXISTS/
s,REMOVE/s":
```

Hitting return at this point would give you the current assignments which are in force at the time. Typically, this would look something similar to this if you had just booted up with your Workbench disk.

```
Volumes:  Workbench [Mounted]
Directories:
S       Volume: Workbench Dir: s
L       Volume: Workbench Dir: l
C       Volume: Workbench Dir: c
CLIPS Volume: Ram       Dir: clipboards
FONTS   Volume: Workbench Dir: fonts
DEVS    Volume: Workbench Dir: devs
ENV     Volume: Ram       Dir: env
LIBS    Volume: Workbench Dir: libs
```

SYS Volume: Workbench Dir: Workbench
T Volume: Ram Dir: t

Devices:
DF1 DF0 PAR PRT
SER RAW CON RAM

But what does it all mean? Look closely at the first line above. It's telling us that Volume Wórkbench is mounted. In other words, the disk is in the drive. We then move on to directories. All of the directories shown have been assigned to the Volume: Workbench disk to the directory name specified. S has been assigned to Workbench directory S, L has been assigned to Workbench dir L and so on. The Devices shown are the ones that are available. This can be a little confusing, so let's go back a step or two and discuss why assignments are made in the first place.

In the new 1.3 Workbench startup-sequence, three directories are created in RAM: and assignments are made to those directories. These are the CLIPBOARDS, ENV and T directories. Clips, Env and T are all assigned to these directories automatically when you boot up your Amiga.

But why? To save constant disk access in this particular case, but we can use the assign command to save ourselves a lot of key bashing when we want to change to a certain directory which may be buried deep within other directories.

For example. I have on my hard drive partition DH1: a directory where I keep all my CLI tutorial files. The path to these files is DH1:AC&AR/CLI-TUTES. So after booting up, if I opened up a cli, then normally I would need to do the following to get to these files..

CD DH1:AC&AR/CLI-TUTES

Now this is quite a bit of typing, so in my startup sequence on my hard drive I have made an assignment which looks like this...

Assign ACAR: DH1:AC&AR/CLI-TUTES

Now, whenever I want to go to that directory for whatever reason, all I need to do is type CD ACAR: and I am there. A lot easier than typing the full path name as shown above. So as you can see, Assign is quite a useful command. Use it to make life easier for yourself by assigning commonly used directories to an easy to type name...

Here's another practical use for the assign command. Say you were going to use NotePad to write a letter and you wanted to use a fancy font which you saw on a PD disk to write that letter with. Rather than go to all the trouble of copying the font over to your workbench fonts directory, just assign fonts: to the PD disks directory that contains the font you wish to use. Ie: If the Font was called SuperFont and was located in a directory called OtherFonts on the PD disk, then you could place the disk in Df1: and issue this assignment..

Assign Fonts: DF1:OtherFonts

Once done, fire up NotePad and you will find that the fonts in the OtherFonts directory on your PD disk in Df1: will appear in the fonts selection menu in NotePad. Just don't forget to reassign Fonts to your original workbench disk after you have finished. In a future issue, I will do a piece on using different fonts with NotePad and cover other ways of going about the procedure.

Finally, the Assign command is one which can be a little hard for some people to come to grips with. If you find that you are getting a little lost or can't quite understand what's been covered here, feel free to write in with your individual problems and I'll cover these problems for you in these pages over the coming months.

Stack

If you do like to play around with a few PD programs, then you will no doubt sooner or later encounter the dreaded GURU. A lot of people put this down to poor coding on the programmer's part. While this is sometimes quite true, on other occasions it is not. Why? Because these people are often the ones that don't bother to spend the time to read the docs supplied with the program.

I say this because quite often the problem is with the Amiga's stack size when the program is run. The Amiga defaults to a stack size of 4000 when it's first booted up and for most part, this is quite okay. However a lot of programs need a higher stack size in order to be able to run correctly. If an icon is supplied with the program, then the stack size is usually adjusted automatically by the icon, but if it's a case of starting it via the CLI, then you need to set the stack manually before you run the program.

Here is its command template..

STACK Size:

Therefore, usage is simplicity itself. If you have a PD program and the documentation says that the program requires a stack size of 10000 then before you run the program, set the stack to 10000 by typing in the command

STACK 10000

Normally, you will not need a stack size this high, but as a rule of thumb guide, it is always better to have a stack size a bit higher than what a program needs rather than lower. You can always lower it any time you wish by using the command and issuing a lower stack size like Stack 4000 anyway.

I have a line in my startup-sequence that sets the stack size to 10000 every time my Amiga is booted up and find that I never need to adjust it. You can do the same thing simply by editing your startup-sequence to include the line shown above.

Finally, if you ever just want to know what the current stack size is, then just type STACK in a cli on its own and the Amiga will tell you. Eg:

STACK <Return> will give you something like..
Stack Size: 10000

Such a simple little command which is quite often overlooked and the cause of many a Guru. Keep it in mind next time you run a program and Guru rears his ugly red head at you.

CLI help line via modem!

Taking a bit of a breather from commands for a tick, I'd like to change the subject to that of communications via modem. Over the past few issues of ACAR we have seen various BBS (Bulletin Board Systems) advertised and reviewed by ACAR resident communications expert Jonathon Scowen.

I myself run a BBS here in Victoria and invite Jonathon to review it if he can afford the expense of an STD call, however I would like to point out to my CLI readers a little something which my board has, of which I am quite proud. I have not seen anything similar advertised in any of the other boards Jonathon has reviewed

It is an Echo area called "AMIGA HELP LINE" which I originally started as a local message area a long time ago on another BBS called Club Amiga. It is now an echo area which bounces to several boards here in Victoria and hopefully will eventually end up on the FidoNet backbone and go interstate.

The purpose of AMY_HELP is for users to be able to exchange hints and tips in regards to using the Amiga and particularly the use of the CLI. Though it is quite an active area amongst users on its own, I try to make myself as available as possible to answer people's queries on the CLI via this echo. If any BBS sysops are interested in picking up this echo they can contact me direct at my BBS shown below for information on joining the Private network which caters for it at the moment.

Likewise, if you have a modem or access to one, by all means give my board a call and leave a message or three. I always make sure to reply to all queries directed to me on my Amy Help Line echo area. Fido Net is connected and the board is also a part of the ever growing Mystic Network and Host's Graffiti Net. Details of my BBS are as follows.

ANDY'S ATTIC BBS
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FIDONET ADDRESS 3:633/106

Give it a try. I think you'll like it. While it's relatively small compared to the mega boards that Jonathon has been reviewing in past issues, it has most of the latest Amiga PD software available for downloading and has quite a nice feel to it and the benefit of being easy to use and get around in.

Tutorial reference index

As promised at the start of this article, here is Keith's excellent reference index on the whole series of our CLI Tutorial in ACAR right up to the June 91 issue.

QUICK REFERENCE GUIDE!

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Page 40 - Single Drive Notes, RAM - Setting Up, CLI - Check Out Disks, Type Contents, LIST.

CLI TUTORIAL PART 2 - Vol 7 No 7
Page 54 - CLI And Workbench 1.3.
Page 56 - Diskcopy, Rename And Relable, Copy (tricks).

CLI TUTORIAL PART 3 - Vol 7 No 8
Page 48 - Formatting Disks, Delete.
Page 53 - Wildcards, Diskdoctor, Error Messages.
Page 54 - Lazarus, Installing, Diskdoctor Alternatives.

CLI TUTORIAL PART 4 - Vol 7 No 9
Page 50 - Formatting Tricks, Multitasking With Run.
Page 52 - Paths - Setting, Error Messages - DOS.

CLI TUTORIAL PART 5 - Vol 7 No 10
Page 43 - Info.
Page 44 - Addbuffers, ARP (AmigaDos Replacement Project).

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Page 62 - Redirecting Commands, Prompt.
Page 63 - Prompts Colored, Timesaving Tips, Aliases.
Page 66 - Echo, Ask, Skip/lab, Quit, Failat, Wait, Execute.

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Page 38 - Devices, Bind Drivers, Mount.

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Page 40 - Letters: Guru Meditation.
Page 44 - RAM, RAD.

CLI TUTORIAL PART 9 - Vol 8 No 3
Page 32 - Formatting, Diskcopy, Copy Protection.
Page 34 - CLI (smaller), NEWCLI, CON.
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CLI TUTORIAL PART 10 - Vol 8 No 4
Page 46 - Resident.
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CLI TUTORIAL PART 11 - Vol 8 No 5
Page 48 - Corrupt Disk, Script Files, Shell Window.
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CLI TUTORIAL PART 12 - Vol 8 No 6
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I'm sure that you will find this index very useful indeed when you want to look up and refer to an article in one of the past issues you've been saving. I had all intentions of answering some more of your letters this issue, however space does not permit it this month so look forward to a few next issue. Until then, as always, keep hammering that keyboard.

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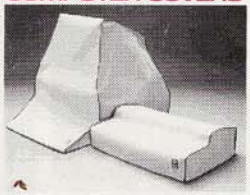

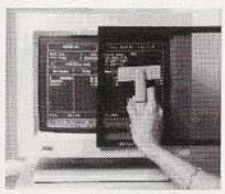

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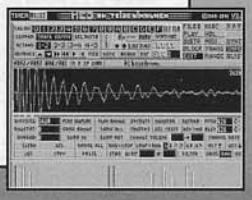

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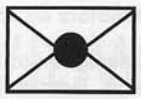

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Phil Campbell's MEGA Entertainment

All the latest news and views from the world of entertainment ...

Mandala Virtual Reality

One little snippet of info we didn't say much about last month was the Mandala Virtual Reality system on show at the World of Commodore. This neat gadget really "puts you in the picture" - literally! Hook up your video camera, link it through the Mandala to your Amiga, and it very cleverly separates the video image, scrapping the background and sending and outline of the foreground figure to the screen. Thus, when you stand in the field of view of the camera, you'll see a silhouette of yourself appear on the screen, set against whatever background environment happens to be running at the time. There were a number of simulated musical instruments like chimes and a harp - move your hand through the air, and as your image collides with the chimes on the screen you'll hear the notes. Then there was simulated Basketball - the ball sprite on the screen goes exactly where the image of you on the screen puts it. Another ball game was reminiscent of breakout - bounce the ball around the screen using your hands instead of a paddle. Fascinating stuff, even if you do look mighty silly while you're prancing around in front of the camera.

Hints disk still available

Don't forget you can order your very own copy of our improved ACAR Entertainment Hints Disk by sending a blank disk, a stamped, self-addressed envelope and a cheque for $5.00 to Phil Campbell, PO Box 23, Maclean NSW 2463. The disk contains all the hints and tips from the last two years' mags arranged in categories - now with a built in text reader thanks to reader Adrian Jenkin.

Mindscape winners

Where have all the poets gone? The response to the June "Write a poem" competition was remarkably poor - in quality as well as quantity. Overall winner was rappin' dude Martyn Cole of Coogee, NSW, who penned this little tribute to Mindscape Competition co-ordinator Richard Treloggan...

"Yo! Check this out, This comp is cool,
And this Richard dude, Man he's no fool!
The Turrican game will make you drool,
Just like Richard - "Mr Cool!"

Not bad Martyn - for your trouble, a copy of the Amiga version of *Turrican II* is on the way. Other winners are Brad Lean, of Figtree NSW, and Mrs G. Cook of Wulguru, Qld. Congratulations to you all.

Adventurers' Realm fifth birthday

Yes folks, Michael Spiteri's Adventurers' Realm is five years old this issue. Some readers may not appreciate the excellent service provided by the realm for so long - free hint sheets are just a small example. So from all of us, here's a hearty "Well done Mike!" Let's hope he can keep it up for the next five years. To celebrate this important milestone, this issue features a bumper sized Realm with a Mike's retrospective on Adventuring in the last half decade. So read on ... and enjoy! ❑

Turrican III on the way

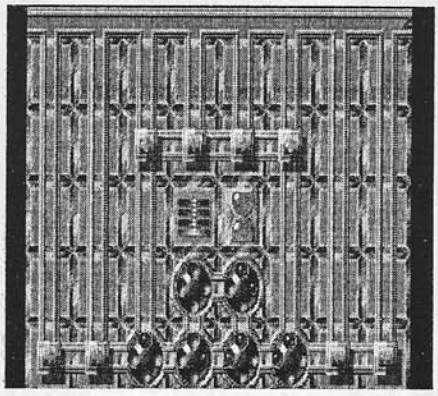
No sooner does *Turrican II* hit the streets than the sequel is on the way. Roving reporter Andrew Gormly tells us that Rainbow Arts have already started work on *Turrican III*. "Can't wait 'til it comes out," says Andrew - and I guess we all agree.

MINDSCAPE COMPETITION

Here's a game with a difference! This month Mindscape are giving away five copies of LOGICAL, a puzzle game in the tradition of Tetris and Blockout. This time, you're playing with balls, pipes and cogs - and rumour has it that it's downright addictive.

Available for the Amiga at $59.95 and on Commodore 64 disk and cassette at $49.95 and $39.95, we're giving away five copies - three to Commodore 64 owners, and two for the Amiga.

Here's what you have to do. Take the letters "LOGICAL SCRAMBLE" and re-arrange them to make the longest *logical* sentence you can. Each letter can be used only the number of times it appears in LOGICAL SCRAMBLE, though you don't have to use all letters. Prizes will go to the best, most logical, longest sentences in each computer category.



Send your answers in an envelope marked MINDSCAPE SEPTEMBER COMPETITION to PHIL CAMPBELL, PO BOX 23 MACLEAN NSW 2463 by the end of the month. Go to it! ❑

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Send your entertainment letters to Phil Campbell, PO Box 23 Maclean NSW 2463. Keep your letters brief, to the point and interesting, and above all, make sure they're about games!

A pat on the back

Dear Phil, I'm a great fan of the Amiga, and of ACAR. I'll admit that I occasionally read overseas magazines, but because I'm fifteen I can't always afford them. That's what I like about ACAR; it's inexpensive and yet it doesn't lack in quality. Your game reviews are always spot on, and you guys deserve a medal for the amount of effort you put in.

Michael Poke
Burnie, Tas

Ed: *Thanks for the comments Mike - trouble is, no good giving us medals until we've got chests to pin them on.*

Amiga Comet fan comments

Dear Phil, I'd like to find out if the arcade game *Halley's Comet* was ever put on to the Amiga. If it was, which crowd did it, and how much does it cost? By the way, in my opinion the best sound-tracks on the Amiga are on the games *Xenon 2* and *Bio Challenge*. Please print my letter, Phil! I'm a devoted Amiga fan.

Aaron Sanderson
Bathurst, NSW

Ed: *Your wish is my command. Your letter is printed, and I agree with your taste in sound tracks - especially with Xenon II. But wait till you hear the CD-TV version! It will really blow your mind. Haven't heard of Halley's Comet, so maybe someone can write in with some info.*

Beastly problems

Dear Phil, I'm a frustrated devotee of *Shadow of the Beast 2*. In the wake of *Beast 1*, I would've thought that it'd be one of the most popular adventure/arcade games around. Why, then, hasn't anyone asked your mag for help, or even registered a high-score? I can only assume that everyone else is having as many sleepless nights as I am!

I've enclosed a few hints for the Hints and Tips section. But in the meantime I've got some problems of my own. Number One: I can only slay Ishran's block-pushing Slave in the Western Passage with the axes obtained from the Monster Who Gushes Gobs Of Green Goo. Yet I know that the axes are needed to kill the drawbridge winder in the Crystal Caverns - what do I do? Number Two: After hoisting the block of stone and breaking it on the spike at the far end of the acid pool, I go back up the elevator with the second key and the "stand clear" area becomes a bridge by which I can push the remaining fragment across. Then what? Apparently, this is one of the toughest sections of the game - help!

David Rich
Caringbah, NSW

Ed: *Okay all you beast-o-philes! Get cracking, and send in your answers to David's desperate dilemmas.*

Not sucking up

Dear Phil, Could you please tell me if there's a sequel to *Millennium 2.2* by Electric Dreams? This is a great game, and I have spent many hours on the computer trying to colonise Earth, and finally succeeded in doing so. So, I need more worlds to colonise - that's not greedy is it?

I have subscribed to ACAR because it is the most entertaining and informative mag in Australia today, and no other magazine can come near its price or quality. No, I'm not sucking up to you, just stating the facts. There is only one problem - the mag gets wet if it rains, so I'm pleading with you to cover the mags in plastic when you send them out.

Doug Ghiggioli,
Wagga Wagga NSW

Ed: *Our resident expert Andy Phang is checking his databanks for info on a follow up to Millenium 2.2. We'll let you know. To answer your next question, yes, it is greedy. Thirdly, of course you're sucking up to me, just so your letter would get printed. It worked. Finally, your plea for plastic has been referred to our production people. Who knows?* ❑

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Amiga HINTS & TIPS

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Lemmings

Nigel Morton of Coleambally NSW, says he thinks he can help David McKinney with his problem on *Lemmings* Mayhem Level 20. "It sounds to me that David is going about it the wrong way," says Nigel. So first, some general tips for getting through the harder levels.

1) I find that I nearly always go about solving it the wrong way the first time I try it. If you aren't having any success with one method, forget it and try a totally different tack.

2) You nearly always have to use all of the modes you are given. For example if you are given two blockers you will almost certainly have to use them both to complete the level.

3) Timing and placement are very important. A few pixels or fractions of second either way can make a big difference.

4) Blockers can be removed by either blowing them up (not much use if you need 100%) or by mining the ground underneath them. Start mining approximately two Lemming widths before the blocker.

5) Patience is necessary. There is always a way.

To complete level Mayhem 20:-

1) Let the first two lemmings released walk to the right.

2) Turn the third lemming released into a blocker slightly to the right of where the lemmings land.

3) Start the first lemming bashing through the right wall.

4) While the first lemming is bashing, use the second lemming to mine under the blocker lemming.

5) Use the first lemming to build a bridge to the exit platform. The first brick of the bridge MUST be entirely on the left platform. If it is hanging slightly over the edge, the builder will turn after completing the bridge and fall down the miners hole.

6) Wait until the very last lemming is at the very end of the bridge and use it to mine through the bridge. This creates a hole for itself and the second lemming to climb up through.

7) Turn the two remaining lemmings into climbers and they will climb out.

You will probably have to experiment with the placement of the blocker, miner and builder to complete the level.

And now... what we've all been waiting for - a complete list of codes for Lemmings.

Difficulty Level	Fun	Tricky	Taxing	Mayhem
1	LCCNNMGPDP	ONICAJNNFP	NHMFHFALHV	
2	IJHLDJBCCW	COOLMFLQDK	FIBIJLMOFL	HMFHFINMHO
3	NHLDHBADCR	CCJJLDMBEX	IBANLMFPFY	MFHFAJLNHX
4	HLDHBINECK	MJHNMICCEX	BINLMFIQFR	FHFIJLMOHQ
5	LDHBAJLFCT	NHNLICEDET	GEKJLLHBGY	HFANLMFPHN
6	DHBIJLLGCM	HLDMCIDEEY	KJHLELGCGV	FINLMFHQHW
7	HBANLLDHCJ	LLICAJMFEQ	NHNLHGCDGW	FAJHLDIBIW
8	BINLIDHICS	LICKKMLGEM	HLDLGMOEGM	IJHLDIFCIP
9	BAJHMDHJCW	MCGOLLDHEY	LDLGCJNFGV	NHLDIFADIM
10	IJHMDHBKCN	CINMLDMIEL	ELGKJNLGGO	HLDIFAJFIO
11	NHMDHBALCK	CAKKOLIJEW	LGANOLDHG0	LDIFAJLFIO
12	HMDHBINMCT	IJIMDMCKEW	FINMLDHIGL	DIFIJLIGIX
13	MDHBAJLNCM	OKMLICALEK	FAJHMDHJGM	IFANLLDHIV
14	DHBIJLMOCV	IMDIBINMEX	IJHMDHFKGV	FINLLDIIIN
15	HBANLMDPCS	MDIBAJLNEP	NHMDHFALGS	FAJHMDIJIP
16	CMOLMDLQCV	LMBIKLMOEV	HMDHFINMGL	IJHMDIFKIY
17	BAJHLFHBDO	MCANNMDPEM	MDHFAJLNGV	NHMDIFALIV
18	IKHNNHCCDT	CINLMDIQET	DHFIJLMOGN	HMDIFINMIO
19	NJNNHCCDDT	CCKINNIBFQ	HFANLMDPGK	MDIFAJLNIX
20	HLFHBINEDN	IJHLFMCCFP	FINLMDHQGT	DIFIJLMOIQ
21	LFHBAJLFDW	OHLFMCADFM	FAJHLFHBHW	IFANLMDPIN
22	FHBIJLLGDP	JLNICIDEFM	IJHLFHFCHP	FINLMDIQIW
23	HCGOLNNHDO	LNIBAKNFFV	NHLFHFADHM	FAJHLFIBJJ
24	CMNNNNHIDW	FIBIKLLGFT	HLFHFINEHV	IJHLFIFCJS
25	CAJJOFHJDM	ICEOLNNHFP	LFHFAJLFHO	NHLFIFADJP
26	OKJONHCKDU	BMONLNIIFX	FHFIJLLGHX	HLFIFINEJY
27	NKMFLCCLDX	CAJJMFMJFR	HFANLLFHHV	LFIFAJLFJR
28	KMFHCKOMDN	IJHMFIBKFT	FINLLFHIHN	FIFIJLLGJK
29	MFLCCJLNDW	OHMFMCGLFM	FAJHMFHJHP	IFANLLFHJX
30	NHCMJOOODK	HMNICMNMFW	IJHMFGFKHY	FINLLFIIJQ

And Fighter Bomber too...

"I can also possibly help Kristian Adamson with the *Fighter Bomber* "BUCKAROO[space]" cheat," says the ever helpful Nigel. "When I entered buckaroo on my version of *Fighter Bomber* it comes up with "Oooh Noo it's a BUCKAROO". This makes all missions available from the start and also enable a handy autopilot feature. If you hit D while playing you are taken to the next target."

Continental Circus

Juris Graney thought the last issue

was a bit short on hints and tips, so he's done something about it. Here they come - first off the starting line is *Continental Circus*... When the first red light comes on at the starting line push forward then back for the next red light and then forward for the green and you will have a brilliant start to the race.

Dragon's Lair II

On the credit screen, press Return then type "GET MORDROC DIRK"(with spaces).

Dynamite Dux

Type "CHEAT" on the title screen to receive infinite lives. Press F1 to F6 to skip levels and type "NUDE" to play the boxing sub-game.

E-Swat

Pause during the game and type in "JUSTIFIED ANCIENTS OF MU MU"(with and without spaces). The border will flash and you'll be endowed with 99 lives.

Ghostbusters II

When the word Activision appears on the screen press CTRL+ALT+S+U for a variety of effects.

Gremlins II

Type "SINATRA" on the high score chart.

James Pond

Having trouble with everyone's favorite fishy friend? Well just type "JUNKYARD".

Jumping Jackson

Codes are:ROCKNROLL, NOISES and ELVIS.

Kid Gloves

Pause the game and type "RHIANNON" then F6 will take you back to the shop, F8 will give you loads of money, and F9 toggles immunity.

Lotus Esprit

Enter player one's name as "FIELDS OF FIRE"(with spaces) and player two's name as "IN A BIG COUNTRY".Or a fab 'novelty' effect, player one's name"MONSTER" and two's name as "SEVENTEEN". This will take you to a completely different game- a vertically scrolling shoot'em up.

Robocop II

When the intro music begins to play type in "SERIALINTERFACE".A screen should tell you about the cheat. Try this one as well:once loaded, press F3 to access the hi-score table and type in BAMBOOZULEM followed by help. You should have infinite energy. When you're in the shooting gallery don't move the joystick and you will have 1186 targets.

Sly Spy

Enter the code as 0-0-7 and then during the game type "SHAKEN BUT NOT STIRRED" for infinite credits.

The Spy who loved me

Type "MISS MONNEYPENNY" on the title screen for infinite lives.

ST Dragon

Hold down left mouse button and fire until the game loads for infinite lives. Alternatively, during play, press Capslock and type "DECAFFINEATED" then return for the same as above.

Teenage Mutant Ninja Turtles

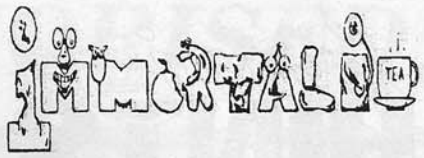
When asked for the code, type 8859, and then 1506, and then the correct code. During play press Help for infinite lives.

Wings of Fury

Select your rank as usual, then, when on the carrier type"Colin was here"(with spaces). Then C changes weapon in flight, M gives you infinite weapons, press P for an extra life, D makes you immune and F fully fuels you.

Z-Out

Press J and K simultaneously for infinite energy. Then press J and any number between 1 and 6 to skip levels, or 1 and 3 on the numeric keypad to jump sections. ❑



Hawkeye

A few useful pokes 'ere for this wonderful parallax scrolling game by The Boys Without Brains. Once again, sorry about all the mega-old tips I print, but that's all the readers send me, and I can't make any as no companies send me new games...

So, take it away Andrew Gormly...

For unlimited lives and weapons, load the game, hit reset and enter:

POKE 7468,173 (For unlimited weapons)

POKE 6105,173 (For infinite lives)

SYS 23558 (To restart the game)

Cabal

A pretty damn accurate conversion, is CABAL. Even though there is no simultaneous two player mode. Ah well, can't have everything. James Reid says reset the computer and type POKE 9905,189:POKE 9173,189:SYS 2097 for infinite lives and grenades.

Rick Dangerous

His name's Rick, and he's dangerous. Rick Dangerous. Hmmm, yeah right. Seriously though folks, this game is a good 'un, and addictive. I can give it up any day now, really! Heh...

Reset the computer and type:

POKE 27931,173 - Infinite Rick's (and dangerous one's at that)

POKE 11193,173 - Infinite dynamite.

POKE 10886,173 - Infinite little metal thingies (ah, bullets)

SYS 2057 - To restart the game.

Tiger Road

Tiger, grrr, roar etc. Hmmm, I think I may have gone mad. Well, no matter. Reset the compie and type (on that lumpy thang, erm, keyboard...)

POKE 5749,165 - For infinite lives.

SYS 14848 - To go fer a trot on the Tiger Road.

Gemini Wing

One of the most dissapointing games ever! Lots of hype, terrible game. Well, I like passwords, so 'ere's a few...

LEVEL 1 COKECANS
2 MR.WIMPY
3 CLASSICS
4 WHIZZKID
5 GUNSHOTS
6 DOODGUYZ
7 D.GIBSON

Chase HQ

Ha, this game is just amazing if ya wanna Spectrum emulator. Otherwise, this game is one to avoid! It's sequel, however, is lurvely. Hold down the fire button and type GROWLER and now you can reset the timer by pressing T.

Now for some pokes from Justin Hawkins, one of the eight or so people that bought my marvellous mega-disk...

Robocop

Atul adds that POKE 4416,0 will give the metal-man infinite energy. But will Robo ever kiss and make up with his wife?

Rygar

TCHWAR, TCHWAR! Yep, this is one of my fave arcade games, even though the conversion isn't spectacular. Wee little sprites and crappy sound, but the game is pretty damn good otherwise. And here's a few pokies!

POKE 9551,165 - Infinite Rygar's.

POKE 4050,77: POKE 4055,77 - Stop the clock.

SYS 2325 To restart

Indiana Jones and the Last Crusade

Hmmm, I've heard that there may be another Indy game out soon, about the further adventures of young Indy. Well, I hope it's better than this one! To enable cheat mode hold down keys F,I,S,H and then press keys 1-5 for different parts of a level or 6 for the next level. Fishy, fishy, fishy, fish, where is my fishy fish?

Oh, and some reset pokes:

POKE 32552,173 - Infinite Indy's.

POKE 37255,173 - Infinite whips (oo-er).

POKE 35756,173 - Infinite light?

Menace

Nope, this one completely passed me by. I've never seen it. But I do know that the original Amiga game was programmed in spare time by a guy doing a Uni course!

POKE 8980,234:POKE 8981,234 - Unlimited energy.

POKE 8228,0 - Infinite cannon.

POKE 8243,0:POKE 8261,0 - Infinite lasers.

SYS 2080 - To restart

Dark Side

A slow but nice 3-D adventure game, and now you too can write a 3-D game with the 3-D CONSTRUCTION KIT that has just been released. Wowee-wow-wow as a quack once said...

POKE 26272,173:POKE 29005,173 - Infinite time.

POKE 24891,173:POKE 24671,173 - Infinite fuel.

SYS 39096 - To take a walk on the DARK SIDE...

Ghosts 'n' Goblins

Atul Prasad wanted to get famous, so he sent these pokes for Ghosts'n'Goblins. For infinite time, POKE 3901,0. For unlimited lives, simply POKE 2358,173.

Well, that's all for this month, and I must say thanks to all who are responding to my call for more tips, but some newer ones would be nice.

So, keep sendin' your tips and letters to me: Slartibartfast, 4 O'Connor Drive, Bray Park, NSW 2484.

HALL OF FAME

Send your authentic high scores to Phil Campbell, PO Box 23 Maclean NSW 2463. Please mark clearly whether your scores are for C-64 or Amiga. And remember - NO CHEAT MODES ALLOWED! -

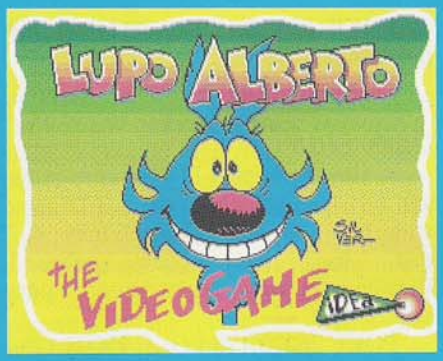
AMIGA

ACTION FIGHTER 132,530 R. Baker
ALERT 359,700 R. Baker
ARKANOID 1,052,610 S. Walter
AMAZED 130,500 C. Turnadge
BAAL 134,250 Davo
BATTLE COMMAND 334,200 P. Cain
BATTLE SQUADRON (c) A. Burbidge
BEYOND ICE PAL 67,626 (c) C. Turnadge
BIO CHALLENGE 29,000 A. Sanderson
BLOCKOUT 85,281 S. Lark
BOMBJACK 236,430 S. Walter
BUBBLE + 276,850 (c) C. Toyne
BUBBLE BOBBLE 1,925,070 R. Baker
BUGGY BOY 103,350 D. Thompson
CHASE HQ 5,504,010 A. Augostis
CONT. CIRCUS 4,815,390 Dolly
CRAZY CARS 86,547,220(c) A. Wade
CRAZY CARS CHALL 3 Bill M. Summers
CRYSTAL HAMMER 43,847 D. Thompson
CYBERBALL 475,000 D. Marsh
DENARIS 53,900 P. Evans
DIABLO 1,490 T. Johnson
DRAGON NINJA 246,400 R. Matthews
DOUBLE DRAGON 124,630 J. Knight
EDD THE DUCK 5,820 A. Gormly
ELIMINATOR 246,570 G. Munro
EMERALD MINE Level 23 (d) T. Johnson
FLOOD 6,455 E. Beaton
GEE BEE AIR RALLY 307,466 K. Andy
GIANA SISTERS 56,567 Matthew Keath
GODS 80,277 A. Gormly
GOLDEN AXE 40.1 A. Gormly
HYBRIS 1,826,075 E. Beaton
IK+ 114,400 S. Southurst
IMPOSSIBLE MISSION 66,380 D. Unwin
INDIANA JONES L.C. completed P. Nicoll
INDI 500 38.53sec/233.58mph Dolly
INERTIA DRIVE 18,790 T. Johnson
KARATE KID II 54,000 M. Summers
LEATHERNECK 86,500 S. Crosland
LIVE AND LET DIE 96,520 M. Beaton
MAJOR MOTION 50,658 O. Webster
MENACE 996,481 K. Andy
MIDNIGHT RESIST. 228,755 A. Augostis
MINDWALKER 306,214 P. Schumacher
MOUSETRAP 71,977 D. Rich
NINJA MISSION 35,141 A. Sanderson
NITRO 233,000 (c) A. Gormly
N. Z. STORY 546,695 E. Beaton
ONSLAUGHT 16,179 A. Gormly
OPERATION T. BOLT 53,000 A. Gormly
OPERATION WOLF 776,350 W. Diaz
OUTRUN 26,331,122(c) B. Moen
OFFSHORE WARRIOR 626,345 J. Booth
PACMANIA 3,250,140(c)A. Burbidge
PINBALL MAGIC 332,390 T. Chilcott
PINBALL WIZARD 464,730 P. Ryan
PIONEER PLAGUE 35,412 K. Sooby
PLUTOS 299,000 Davo
POPULOUS 347,990 M. Summers
POW 612,865 D. Thompson
RAINBOW ISLANDS 9,999,999 T. Johnson
RAMPAGE 120,900 M. Summers
RICK DANGEROUS II 25,470 A. Gormly
ROBOCOP 375,520 M. Summers
ROTOX 183,050(c) F. Doherty
SHINOBI 664,372(c) W. Diaz
SIDEWINDER 904,350 S. Elsley-Eades
SILKWORM (Heli) 4,079,300 (c) Iceman
SILKWORM (Jeep) 622,500 D. Everton
SKWEEK 2,403,880 E. Beaton
SPACE ACE 22,140 N. Clarke
SPACE HARRIER 210,855,250 Maverick
SPEEDBALL 17,650 A.Burbidge
STARWARS 5,722,822 C. Mingos
STRIDER 175,350 N. Young
SUPER CARS 17 races Maverick
SUPER HANG-ON 25,042,850 D. Worthy
SUPER OFF-ROAD $350,000 A. Gormly
SUPER WONDER-BOY 87,190 J. Stubbings
SWIV (HELI) 369,230 I. Nicholls
SWIV (JEEP) 75,390 A. Gormly
SWORD OF SODAN 403,500 S. Begley
TEEN.M.N.TURTLES 546,600(c)J. Leeken
TEST DRIVE 131,076(c) J. Noglet
TEST DRIVE 2 659,992 M. Summers
TETRIS 35,920 M. Summers
TETRIX Level 232 S. Lark
THUNDERBLADE 336,520 R. Matthews
THUNDERCATS 522,300 Scott Southurst
TOWER OF BABEL 25,934 (c)Stephen Lark
TURBO OUTRUN 100,260,819 M. Mantle
TURRICAN 1,735,100 (c) Adrian Jenkin
TV-SPORTS F.BALL 189-0 David McKinney
TWINWORLD 24,640 Carol Love
TYPHOON 54,255 Owen Webster
VIRUS 16,576 Michael Summers
WHIRLIGIG 28,210 Nathan Allen
WINGS 426 kills Jason Main
WONDER BOY 291,350 Maverick
XENON II 1,107,280(c) Mark Porta
ZOOM 67,051 Steve Jones

COMMODORE 64

ALLEY CAT 1,101,150 Simon Mitchell
ALTERED BEAST 251,250(c) Adam Blanch
BATMAN 473,230 John Nunes
BATMAN-THE MOVIE 1,087,080 M. Bradley
BANGKOK KNIGHTS 39,600 Josh Smith
BOMB JACK 521,820 Adam Wade
BUBBLE BOBBLE 6,963,930 (c) D. Gavrilovic
BUGGY BOY(c) 153,000 Adam Wade
CHASE HQ 9,220,121(c)ICEMAN
DOUBLE DRAGON 35,820 (c) Atul Prasad
DOUBLE DRAGON II 255,190 N. Heeswyk
FAST BREAK 136 to 9 Chris Byrne
GHOSTS AND GOBLINS 28,520 A. Blanch
GHOULS & GHOSTS 87,050 (c) A. Blanch
GIANA SISTERS 119,150(c) D. Gavrilovic
GRYZOR 211,200 Giulian Aslett
H. MARADONA Level M N. van Heeswyk
HAWKEYE 207,650 Adam Wade
IKARI WARRIORS 267,800(c) Iceman
INT. KARATE 139,300 Paul Millward
LAST NINJA II 21m31s (c) Adam Wade
MIDNIGHT RESISTANCE 28,540 (c) D. Pike
NEMESIS 1,157,300 Simon Mitchell
OPERATION WOLF 374,900 Adam Wade
OUTRUN 15,848,550 Giulian Aslett
PARADROID 32,250 Simon Mitchell
PAPERBOY 103,100(c) John Nunes
POWERDRIFT 840,290 Giulian Aslett
QUE-DEX 639 Chris Byrne
R-TYPE 1,890,210 Atul Prasad
RAINBOW ISLANDS 2,233,820 Adam Wade
RAMPAGE 120,300 Giulian Aslett
ROBOCOP 237,170(c) Adam Wade
ROLLING THUNDER 382,950 (c) G. Aslett
SALAMANDER 235,300 Paul Millward
SILKWORM (Heli) 965,200 (c) Adam Blanch
SILKWORM (Jeep) 244,500 (c) Adam Blanch
STREET FIGHTER(c) 168,900 A. Wade
SUPER CYCLE 223,040 Andrew Gormly
TARGET RENEGADE 330,450 C. Byrne
TEST DRIVE 36,144(c) John Nunes
TEST DRIVE II 249,543 (c) A Batroc
TETRIS 25,706 (326 lines) A Batroc
THUNDERBLADE 1,734,040 T. Morrison
THUNDERCATS 269,500 Joseph Wright
T.M.N TURTLES 878 Adam Wade
TRAZ 54,560 Dave and Sue Upton
UNTOUCHABLES 70,230 Simon Watford
WIZBALL 607,420 (c) Simon Mitchell
WONDER BOY 535,450 A Batroc

Scores followed by (c) indicate that the game has been completed.



This italian comic strip hero has been prowling around Europe for around 18 years. *Lupo Alberto* is a wolf. He's friendly, sharp and at the same time shy. Gifted with artistic sensitivity, he pays attention to the quality of life and to social and environmental problems without giving up his enjoyment of life. The author of the comic strip is known as Silver, alias Guido Silvestri.

Lupo has been transformed into a computer character with some of his friends from the comic strip, The Mckenzie family. You'll also meet Mose' the Guardian, Krug the Bull, Alfredo the Turkey, Glicerina the Duck, Enrico the Mole, Osvaldo the Rabbit, Alcide the Pig and Lupo's love, Marta the Hen.

The aim of the game is to guide Lupo and/or Marta in the search of a quiet place to be together. Not an easy task, and to do it they will have to go through 10 levels of farm mayhem within a time limit.

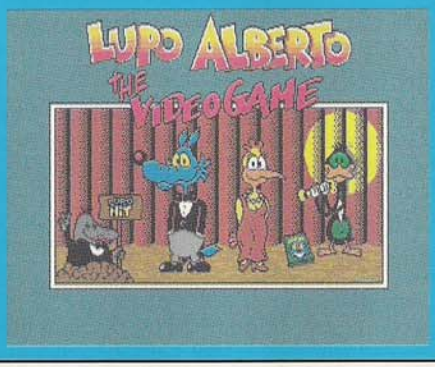
Lupo Alberto is quite an unusual game. The way you kill other animals is hilarious. You have to jump on their heads twice. The first time they hold on and climb back up, and the second time they die and release a bonus or two. Jumping on some platforms releases fruit - collecting it will give you extra points. When some animals die they release special weapons, like shoes to make you run faster, springs to make you jump higher, helmets to let you jump through platforms and boxing gloves that fire deadly missiles.

Lupo Alberto is an unusual game - it's fun, but it takes ages to load, and to my mind it's just a bit too difficult. ❑

Juris Graney

Ratings:
Graphics: 80%
Sound: 74%
Gameplay: 76%
Overall: 80%

Distributed by:
Pactronics
02 748 4700
RRP Amiga $69.95



As I look into the crowd, many eyes peer back at me, faces blurred by the bright lights suspended above me by towering poles. I get to the plate and look round at the field placements. This was to be my debut in the American baseball scene. I look down at my feet, I look up and stare at the pitcher. From behind me the umpire yells "Play Ball!" I concentrate on the pitchers eyes, then as the pitcher rares up on one foot a white blur whizzes past me.

"Strike One!" yells the umpire. The catcher chuckles to himself behind his face mask. I look at the pitcher again, he rares up and sends in a curve ball. I steady myself and swing, but to no avail. "Strike Two!" the umpire yells again. I drop the bat from above my shoulder and look back at the dug out. All my team mates stare back at me with hopeful eyes. I turn my eyes to the scoreboard. It is the ninth inning. We are down by one run. My name is printed up there with no stats on me. I lift the bat above my shoulder all the time thinking if I get this run we will be in the semis. I look towards the pitcher again, and as usual he rares up. I close my eyes and swing. "Strike Three. You're out of there!".

Welcome to *Championship Baseball*. When first examining the package I thought to myself, another *Hard Ball* remake - though on loading, *Championship Baseball* appeared to have all the makings of a good baseball game. Two player option, league or exhibition matches, batting practice, choosing players, choosing the batting line up and choosing your division. Then to the most important part, the game play, it just didn't have the thrill and excitement that Hard Ball displayed.

Championship Baseball's graphics were pretty average, the sound was minimal and the addictiveness was very low and the time taken to load the game was slow. Now to the good points of the game. *Championship Baseball* is a very colourful game. The artists made the screen attractive but still made it bearable.

In short, *Championship Baseball* is not a very good Sports Sim. I wouldn't recommend it to pro baseballers, but to novices it would be a fair introduction to a great game. ❑

Juris Graney

Ratings:
Graphics : 60%
Sound: 65%
Gameplay: 60%
Overall: 62%

Distributed by:
Pactronics
02 748 4700
RRP Amiga $19.95

David Sanna takes a look at the latest in future sports. It's mean ... it's tough ... and he likes it a lot!

"Ugghh!" I grunt in satisfaction as another one of my fast balls rockets past my unwary, tired opponent. Slowly he staggers to drive his hover pallet across the tiled floor. "Full Time!" calls the ref - and the end of quarter buzzer seconds his decision.

"YEAY! Another win for The Hero!" (as I have aptly named my *Stormball* gladiator). The year is 2020 and the world has eliminated all of the 'old sports' like football and soccer. In turn, the world has evolved a high-tech, high-paced sport called *Stormball*. After loading the game, you sign on by choosing the Pro Circuit. Enter your name and then you will become an unrated player. To begin with you have only 20 credits, so you can only afford to play against the cheapest and easiest opponent.

If you win you will double your money, with an extra windfall if you gambled on yourself. When you play you will also notice different coloured squares appearing at random on the indoor arena. These, if hit by the ball, will give you a bonus. It may be points, it may be cash - there will be a sign above it telling you.

Watch out too for barriers, ramps, breakthroughs, rebounders, and null squares. The null squares are a particular problem - if you hit one, all your points are reduced to zilch. Bummer eh!

I finally plucked up the courage to enter the arena with Maggot Malone, the psychotic son of a gang land boss who is renowned for violence on and off the field. Ooohhh! A toughy eh? Well we'll set this guy straight ...

The buzzer shouts its signal and the crowd applauds endlessly as I dive to grab the incoming ball in my power glove. Precisely, I spin around and take aim at the bonus tiles in Malone's half. I build up my power, and throw the metal sphere as hard as I can past Malone, utterly shattering the 500 point tile. Already in front I smile, eyes glued on Maggot's return. "Not bad," I think to myself as I view the first quarter's results. Leading by 700 points.

"Play!" says the ref, and the second quarter begins. Maggot Malone snatches the ball and wasting no time hurtles it back towards a 300 point tile, and, alas, too late I miss the return. A terrible mistake that turns out to be - suddenly, I'm paralysed by a stun tile which Malone strikes with a brilliant shot. Arrggghhhh! I can only watch in anger as Malone scores hundreds of points, building a lead of 2000 points.

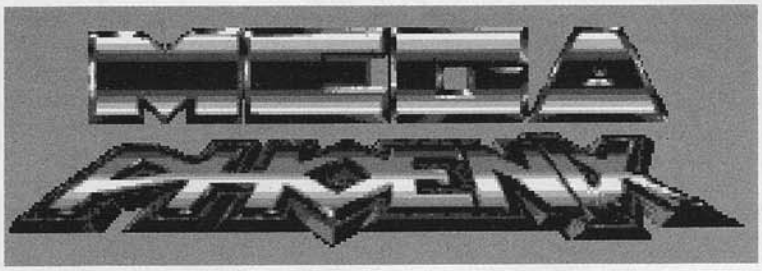
All too soon the beginning of the final quarter buzzer sounds, and Maggot Malone is still in front. Now he's getting me mad! "CHARGE!" I scream at the monitor as I begin a legendary, slaughterous come back. Scoring every bonus in sight I manage to equal my opponents score. 15 seconds left on the clock and the scores are still locked. I steady myself, panning the arena for a bonus tile... then one pops up. Viciously I spin on a dime, take aim and throw the ball screaming into the opposite half. Whizzing past Malone at the speed of light, the ball smashes a 500 point bonus just before the buzzer rings to end the game.

"YEAH! Alright!" I'm whooping and jumping about in front of my slightly worried parents. Yes this program is a definite must for everyone who likes a game with a difference. The 3D graphics are extremely smooth and realistic digitized voices enhance the game's performance. The numerous pitches will keep you coming back just to see and play them. You can also practice the pitches against a droid, which can be pre-set to any level of skill. *Stormball* is very addictive and great fun! ❑

Ratings:	
Graphics	81%
Sound	79%
Playability	75%
Addictiveness	85%
Overall:	**82%**

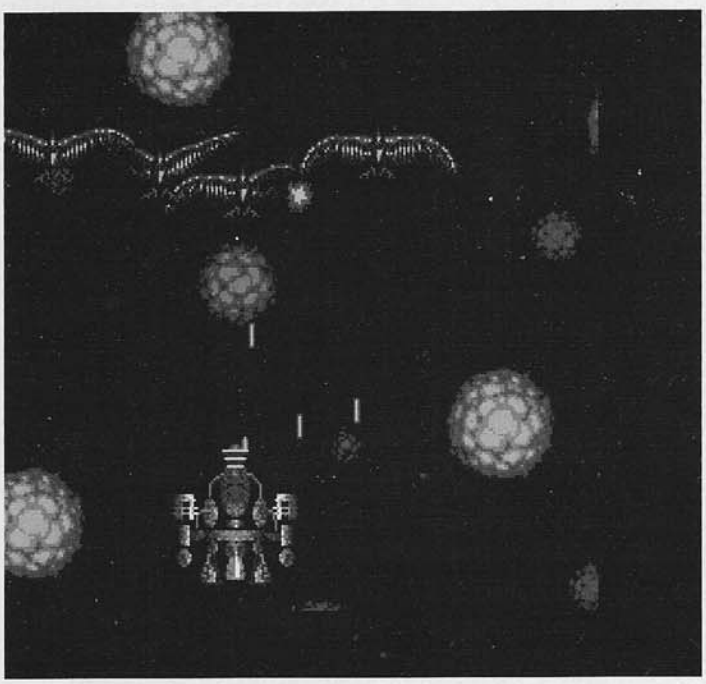
Distributed by:
Mindscape
(02) 899 2277
RRP Amiga $69.95

Gavin Parsons sets out on a little nostalgia trip as he takes on the Firebirds in ...



A lot of my school holiday time was spent fighting aliens in the video arcades. My friends and I battled many types of aliens - Space invaders, Bosconians, Galaxians, Galagas and ... The Phoenix!

According to Arabian legend, the Phoenix was a powerful bird that set flame to itself and was reborn years later from its ashes. The legend appears to be true. The arcade version of Phoenix has been reborn as a new space shoot'em up for your home computer. Reborn as... *Mega Phoenix*!



The Phoenix are a legion of cosmic birds - controlled by an evil mind, they're bent on destroying our universe. Your job is to stop them. Inspired by a new soundtrack, and a challenge screeched by an enemy Phoenix, I prepared myself to battle my old foe. My spacecraft, armed with a turbo laser and recharging shield, was ready for the battle to begin!

The first two attacks come in waves of Phoenix ships in a *Galaxian* style formation. No problem for an old arcade hand like myself. I found the ship controls to be a little sluggish, so every shot counted. The shield is a useful piece of hardware, enabling temporary indestructability at crucial moments. Beware of kamikaze Phoenix ships and their weaponry!

Next come waves of killing eggs - a far more difficult level in which timing and sharp reflexes are crucial. It is necessary to destroy a couple of the eggs before they hatch, or you find yourself facing a flock of screeching Phoenix fighting machines. You can shoot their wings but only a direct hit will take them out of action. Where's that extra firepower when you need it?

With a sore thumb and a sweaty brow I made it to the next stage ... the Mega Phoenix. The Mega Phoenix is an enormous metallic bird that launches explosive projectiles at your craft with deadly intent. Like Achilles, the Mega Phoenix has only one weak spot in its metallic underbelly. It takes a number of direct hits to destroy the winged beast. Patience and wise use of the shield helped me to stay alive. Is it worth the effort? Definitely! Each time you destroy a Mega Phoenix you receive a new piece of weaponry. I scored a proton cannon which added some badly needed grunt to my fire power. A number of other impressive sounding weapons were available to those who could survive to the next Mega Phoenix stages. Now I was ready for anything - or was I?

The most difficult stage was ahead - destroy the mother spaceship. The brains behind the Phoenix invasion is an evil genius named Orejut - to rid yourself of the Phoenix tyranny you must destroy him. He is protected in the heart of the mother ship by Phoenix fighters, laser artillery, and a defence shield. A formidable opponent indeed, and too much for me! While avoiding laser blasts and enemy fighters, you must shoot through the defence shield to score a number of direct hits on the evil brain to bring his demise. (He smirks down at you while you attack).

I went down, but I went down fighting - with a vow to avenge myself on the evil Orejut.

Mega Phoenix is a fun conversion of the old arcade game, updated with a sharp soundtrack and nice scrolling backgrounds. A "team" option adds interest to the game, where two players can work together to combat the enemy fighters - it's always more fun to save the universe with a friend.

Being based on an old arcade game means the gameplay is not new or original. For this reason it doesn't compare well to its more modern *Xenon* type space shoot'em ups. I am not sure that it will keep you enthralled for extensive periods of time, but Orejut is a worthy adversary. I was glad to meet up with my old arcade foe, and if you enjoy space shoot'em ups, then I challenge you to take on the Phoenix hordes! ❑

Distributed by:
Mindscape
02 899 2277
Amiga $69.95
C-64 disk $49.95
C-64 cass $39.95

Ratings:
Graphics: 74%
Sound: 75%
Gameplay: 71%
Overall: 73%

Has *Andrew Gormly* finally gone quackers? Sounds like it, as he takes a look at a game featuring a TV star Duck!

Edd the Duck

I dive to the floor as a giant bee zooms overhead. Once he has flown past, I leap up and send him into early hibernation with a well-aimed snowball. A star catches my eye on the right-hand side of the screen. Quickly I make my way over to it with well-timed bounds. My cry of triumph is short-lived, however, as a fish sends me flying to the ground.

"Cut!" yells the director. "Cut! Make sure that you're ALWAYS looking to the left, Edd. Okay - from the top. Everyone ready? Edd - Take 2!"

Yes, a program has finally been released in which you are a star! *Edd the Duck!* is a platform game with a difference. Imagine that you are a superstar, pop music singer and all round cool dude (which should be easy for some of us!) who is just about to perform a TV series on his adventures. Only problem is that getting through the filming is not as easy as it sounds - who said actors had cushy jobs? If it takes more than four takes ... you're outta there.

Edd the Duck! is an addictive little game which is really quite fun. You negotiate Edd throughout the shooting, which is split up into the nine episodes of a BBC 1 production. Each of these episodes is under the control of either the Weather Department (who transported several tons of snow from Antarctica especially for this series), the Special Effects crew (who have really outdone themselves - just wait until you see their backdrop) or Children's TV (the non-violent version, I think!)

The major blocking point in stopping Edd from successfully finishing the series unharmed is Wilson the Butler, Edd's arch-enemy who has placed his cronies around the set with the sole purpose of making life difficult for the pop-star duck. However, Edd is not totally defenceless - he is armed with his wits and a specially developed Snowball Shooter.

Although the graphics aren't quite *New Zealand Story* standard, they are far from blocky and all the sprites and backgrounds are clearly defined. The scrolling is very smooth (no waits for a little hand or sign to appear before you can move on!).

Edd is actually rather an interesting figure to look at himself - it's not every day that you see a green-haired duck leaping around in a respectable waistcoat. Despite the fact that the controls take a little getting used to at first, you'll soon find that you can manoeuvre Edd around his foes with considerable dexterity.

Probably the best part of the game is the lively music which plays throughout it. The playful tune will keep you humming along cheerfully as you collect the 20 stars required to complete each level. Full marks to the composers in this game.

Presentation also plays a major part in putting *Edd the Duck!* above the mediocre mark. Although the instructions are brief and to the point (only two pages in English), they include a short background paragraph which is amusing to say the least. Another good feature is the game re-entry sequence after you lose a life - a board with Edd: Take 2 or similar which snaps shut at the top and begins the shoot. Even the director at the end of the game who calls out through his megaphone, "Cut! Game Over!" is a major asset to the nifty presentation of *Edd the Duck!*.

There have been a large number of platform games created in the past few years. Each of them has struggled to attain a certain atmosphere about which the game should revolve, such as "cute" with *New Zealand Story* and "cool" with *Great Giana Sisters* - who will ever forget the funky hairstyles? *Edd the Duck's* forte is its ability to bring you into the feel of the game and make your imagination stand up and say, "Hey! I'm on camera!"

All in all, *Edd the Duck!* is a very good platform game which excels in presentation and sound. A must for all the *Rainbow Island*-ers and *New Zealand Story*-tellers amongst us, and a great game for the general populace who like kicking the shoes off and settling down to enjoy playing on the computer on Friday nights. ❑

Ratings:

Graphics	82%
Sound	87%
Gameplay	83%
Overall	**84%**

Distributed by:
Pactronics
08 748 4700
RRP Amiga $49.95

No, this isn't a very late review of Hero's Quest, that graphic adventure by Sierra, but Hero Quest, the latest release from UK firm Gremlin Graphics. RPG supremo *Andy Phang* investigates...

Hero Quest is based on the Milton Bradley role playing boardgame of the same name. In fact, you can still catch the ads for the original boardgame on TV (where the boy playing the game turns into a rather ugly orc).

You control a party of four: a barbarian, a dwarf, a wizard, and an elf. Guided by the knowledge of Mentor, Guardian of Loretome, it is your task to complete fourteen individual (though related) quests and prevent the evil Lord of Chaos from conquering the land. As you move from easier quests to harder tasks, you can transfer your party (and their worldly goods) from adventure to adventure, building up their abilities for the tough battles ahead.

And what is your first quest? Simply to introduce the player to the controls of the game. You have to direct your characters through a simple maze, trying to find the exit. Unfortunately, the party has been split up, and it's a race against each other to see who can leave first! Interaction depends on the mouse and a series of icons depicting the actions your character can perform. There are icons for searching the room, combat with opponents, unlocking doors, inventory, casting a variety of magic spells, and a compass rose indicating the direction you want your on-screen alter ego to move. The top left corner of the screen also shows the number of gold coins, health points, movement points, and mental points (for magic) your character currently has.

Hero Quest uses isometric 3D graphics to portray the action of the game, and so the mazes appear to be remarkably realistic (similar to *Cadaver*, but with less colour). Click on a floor tile, and your character will walk there (if he has enough movement points). An overhead map of your surroundings can be called up, though it only shows the areas that you've explored. Animation of the characters is limited to walking and combat sequences. Sound effects are also minimal, though the digitized yells and clanging of swords during combat are excellent. A musical score starts playing from the time you load the game, and continues during the entire quest.

Ironically, the strength of *Hero Quest* is also its weakest point. Make no mistake, *Hero Quest* is a conversion of a board game, and a very good conversion at that. Unfortunately, if you don't like board games, then you probably will not like *Hero Quest*. Characters are controlled with the rolling of "dice" in the boardgame, and the "spinning of the coin" for the computer version. This means everything your character does, from combat to walking, depends on the toss of the on-screen coin. While this may be fine for boardgames, it is unnecessarily slow on the computer version.

Thankfully *Hero Quest* does not require all four party members to explore the dungeons together. You can have your party consist of only one character if you wish, which really saves a lot of time but weakens the overall strength of your attempt at completing the quest. The point is, *Hero Quest* is a very "strict" computer interpretation of the boardgame. The freedom that one experiences in playing the computer versions of AD&D is rarely felt here. It really is no fun trying to shepherd four (or three or two!) characters along a twisting maze when you have to control them individually and not as a party. In the boardgame, you could find friends to take charge of the other characters, but here you'll have to do it all by yourself.

From the smart introduction screens to the main menu, *Hero Quest* is technically superb. The loading times are fast, copy protection is short and simple (simply look up a badge in the manual), and the fourteen quests on one disk are certainly value for money. Sadly, you really have to be a big fan of boardgames to fully enjoy this one. *Hero Quest* really isn't a computer game; rather it's a boardgame on your computer. ❑

Distributed by:
Mindscape
02 899 2277
RRP Amiga $69.95
C-64 disk $49.95
cass $39.95

Ratings:
Graphics: 89%
Sound: 85%
Gameplay: 70%
Overall: 75%

MICHAEL SPITERI'S Adventurer's Realm

Adventurers Realm celebrates 5 years of serving Adventurers!

Welcome to the Realm's 5th birthday celebration. Adventurers Realm, Australia's only section dedicated to helping adventurers on all Commodore computers, has come of age once again. To mark this event we will be bringing you highlights of adventurous events that have occurred over the past twenty years, and also a sneak preview into the future of what is to come!!

That's not all!!! There are prizes to be won, and heaps of hints and tips to drool over. Kamikaze Andy has produced a roundup of roleplaying games released this year. So, enjoy!!!

But first, take a seat in the Realm's magic Time Machine (temporarily borrowed from Zork III - the grandfather clock from Lords of Time wouldn't fit into the office).

Splurt ... 1990 ... scrunch ... 1985 ... rumble ... 1980 ... clunk ... 1975 ... trundle ... beroooopp ... somewhere in the sixties!!

"Where shall we hide the replacement batteries for the torch?" "Well, how about inside a vending machine." "Very quaint, but where do we place this vending machine - at the bottom of a 200ft deep pit?" "No, I have a better idea, how about somewhere in the middle of a huge maze with twisty passages going everywhere and nowhere, and with all the rooms looking like one another ..."

Ah ha! The chaps responsible for those blasted mazes in the first place, Mr Crowther and Mr Woods if I'm not mistaken. These are the guys who wrote the first known text adventure game (or who are writing, as I presently speak). The first adventure game was simply known as *Adventure!* It was a mammoth game with puzzles galore. Originally designed, programmed and played on an IBM mainframe, countless versions of it are still available for home computers via the public domain. Okay, let's get back onto the time mobile ...

Whiz ... bang ... 1970 ... clutter ... perzunk ... 1979!!

"Dad? How do I get out of the maze of twisty passages?" The same adventure game, *Adventure*, this time running on an Apple computer (in BASIC!). It took years, but the first adventure game had made its way onto a personal computer, and it is here that the snowball begins to roll.....

Scott Adams, the future son of adventure games, becomes addicted to *Adventure*. So much so that he decides to write some of his own - over 15 in fact! The first of which appeared late 1979. A game obviously influenced by the original. You might know it, you might have played it, you might have heard your father talking about playing it when he was a little tacker. The game is ... *Adventureland!*

Chungle ... splutter ... trundle ... ping ... 1981!!

"You seem to have been swallowed by a Grue."

The most popular adventure game in the history of adventure games ... *Zork*. Heaps of text, heaps of atmosphere, heaps of sentences accepted as commands, and of course, heaps of problems. Still growing strong ten years later. Infocom - the company that was later responsible for super classics such as *Deadline, Suspended, Wishbringer,* etc, was formed shortly after the commercial release of *Zork*.

Most worthy of a mention is Roberta Williams, who around this time put together an adventure game called *Mystery House*. Few people realise that *Mystery House* was the first true graphic adventure. The company Roberta is part of is called Sierra - a name familiar to adventurers worldwide. The following year, *Ultima I* was released. A game that was to role-playing games what *Zork* was to adventure games.

Beep ... blunder ... bop ... plonk ... zaappp ... 1984!!

Australia makes its mark with the release of *The Hobbit*. A detailed graphic adventure that also features great text descriptions and a full sentence parser. A hit worldwide! Vic dude Philip Mitchell was responsible for this classic.

Crunch ... crumble ... clank ... chin ... September 1986!!

"I am a 14 year old girl who will probably end her life if you don't help me soon ..." Adventurers Realm appears. Until now, adventurers had to write to the numerous adventure columns in the UK to find relief for their problems. Not any more.

The sequel to *The Hobbit, Lord of the Rings*, topped the best-selling adventure games list that month. Funny thing is, *Lord of the Rings* was nowhere near as great as *The Hobbit*.

A new force in adventure software appeared - Magnetic Scrolls. Their first game was *The Pawn*, featuring very artistic graphics, very detailed

storybook text, and a good parser. Magnetic Scrolls provided some fierce competition for Infocom, who in 1986 released their twentieth adventure game ... the circus mystery *Ballyhoo*. Followed shortly with the release of *Trinity* (one of the best and most playable adventure games every released), and the raunchy *Leather Goddesses of Phobos* (the most hilarious adventure game ... next to *Hitchhikers Guide to the Galaxy*, to be released).

Squeekkk ... champooth ... 1988!!

By now adventurers were just about on top of the *Zork* series (some could play it with their eyes closed, in fact, a lot of people played adventure games with their eyes closed ... at 3 a.m.). The triumph was short lived when Infocom released the massively complex *Beyond Zork*. Even the automatic map drawing facility didn't help Zorkers a great deal (they just got lost a lot more quickly). To add salt to the wound, another *Zork* was released, *Zork Zero*.

Adventurers Realm inherits Kamikaze Andy (alias Andrew Phang), who takes charge of a long overdue role-playing game section, known simply as The Dungeon. Andy celebrates three years of role-playing in the Realm in October - so watch out for his special article next month.

Shonk ... blonk ... bronk ... 1989!

Sierra celebrates 10 years of producing challenging and fun adventure games. To date, Sierra remains one of the only original adventure producing companies around, and they are still a major force. Notable releases in the past from Sierra include the *Kings Quest, Police Quest, Space Quest,* and the controversial *Larry Quest* series. Sierra have a whole range of hot new releases for the future ... keep reading!

A notable release in 1989 was an atmosphere oozing adventure game from France. *Mortville Manor* featured excellent speech synthesis and character interaction in a challenging good old fashioned detective mystery.

Whatever became of Infocom, you may ask? Well, they churned out a number of graphic adventure games, but then all the staff and storytellers went their own separate ways. It was the end of an era, no doubt, however the magic of Infocom is still alive with the release of some new games from an ex-Infocom storyteller ...

Kaboom ... phlgink ... bizonk ... 1990-1991!!

A very quiet year as far adventure games were concerned. Everyone was too busy playing the hordes of role-playing games that seemed to have had a sudden surge of popularity. Kamikaze Andy had his hands full just trying to keep us informed of new RPG's. In fact, as 1990 came to an end, the supply of new adventure games has just about dried up ... or had it?

A sudden demand early in 1991 for new MS-DOS PC adventure and strategy games saw many companies concentrate more on the adventure game market. Adventure games releases on the PC were soon released for the Amiga. Then of course the fantastic new Amiga CDTV was released at the World of Commodore Show, promising fans even more realistic adventure games. The message to adventure freaks? "You ain't seen nothing yet!" ❑

Writing to the Realm

Send your adventure game problems, hints, help, gossip, comments, chat, and anything relating to adventure games (on any Commodore computer - including PC's) to me at...

Adventurers Realm
12 Bridle Place
Pakenham Vic 3810

Any roleplaying game queries can be sent to Kamikaze Andy in his Dungeon (don't ask for hint sheets). His address is:

Realm's Dungeon
P.O.Box 315
Maddington WA 6109

Always enclose a stamped addressed envelope just in case we can reply to you. If you don't receive a reply to your problem, look out for it in a future Adventurers Realm.

Realm Chit Chat

Wesley Jollise of Smithton in Tasmania contacted the Realm to let everyone know that *Ultima 6* is available now!

David Couche has the original versions of *Colossal Adventure* (Level 9 Tape Version - C64), *Castle of Terror* (Melbourne House Tape Version - C64), *The Pawn* (Magnetic Scrolls Disk - C64), and *Plundered Hearts* (Infocom Disk - C64). David is after *Lurking Horror* (Infocom Disk - C64), and he is willing to swap any of the games listed above for it. Write to David at 22 Haussman Avenue, St Agnes, SA 5097.

Tibor Stojanovski would like to know where he can purchase *Bards Tale I* and *II*. Tibor writes ... "It appears that ECP has decided, in their infinite wisdom, to cease all production and distribution of the games (truly a severe case of insanity)." Can anyone shine any light on this subject?

A chap called Shane would like to know if there was ever a version of *The Hobbit* released on the Amiga. I'd say your chances of finding one are pretty slim, Shane. Does anyone know about this?

Daniel Good of Victor Harbor in SA is after a game called *Sword of Zar* for the Amiga. Anyone heard of this game?

Garry Scadden would like to join an Amiga group in the Wagga Wagga area. If you know of one, please ring Garry on (069) 242128. Stuart George of 66 Sharon Street, Springvale, has maps for all the mazes in *Pool of Radiance*. If anyone would like a copy, write to Stuart, enclosing a stamped addressed envelope! ❑

Adventure games
What's new & what's coming?

1991 will be remembered as the year of the rebirth of adventure games.

Infocom seems to have reappeared under a different name with two of their most popular storytellers working under the label of Empire Software. Steve Meretzky, famous for classics such as *Planetfall* and *Leather Goddesses of Phobos*, has written two raunchy graphic adventure games: *Spellcasting 101 - Sorcerers Get All The Girls* and its sequel - *Spellcasting 202*, aimed at the adult market. Then we have Bob Bates, responsible for creating Infocom's *Sherlock* and *Arthur*, whose most recent release is *Timequest*, a mammoth adventure that takes the player back through time chasing baddies. All three games feature great text and graphics, and can be played as text adventures, or entirely using mouse. Keep your eye out for more titles from Empire, as *Timequest* and *Spellcasting 101* have already topped the charts.

Sierra, having just released *Kings Quest V* and *Space Quest IV* for the Amiga, recently announced an exciting merger with software giant Broderbund software. Sierra boss Ken Williams has been made chairman and president of the new consolidated company. Anyhow, *Kings Quest V* should now be available on the Amiga. The aim of the game is to recover the famous Castle Daventry and its inhabitants, which magically disappeared! No doubt the hardest of the *Kings Quest* series, the game can be played totally with a mouse (by constructing sentences from the words available), or by keyboard. The sound is fantastic, as are the graphics. Keep your eye out for it! (Distributed by Ozisoft, RRP $100)

A game to look out for is *Mopiti Island*, the long-awaited sequel to the French classic *Mortville Manor*. Private-eye Jerome Lange returns, this time to solve a kidnapping. The game takes place on a tropical island. It features better graphics and better character interaction than *Mortville Manor*, as well as the excellent atmosphere and speech synthesis. Even better news is that more Jerome Lange adventure games are in the pipeline. *Mopiti Island* is available from Pactronics for around $50.

Reflections is the name of a new adventure game for the Amiga. The game is played through a mirror (that is, you see everything reversed!). Sounds challenging and innovative! Reflections is produced by Free Spirit Software, whose products are available from Briwall Australia, ACT.

Another game to look out for is *BAT - Bureau of Astral Troubleshooters*. It is a mouse driven roleplaying game for the Amiga and PC that features detailed graphics and numerous arcade game sequences. The overall format of the game is similar to Sierra's *Manhunter* series. Available from Questor (02 662 7944) for around $80. ❑

Problems, Problems & more Problems
or the Troubled Adventurers Dept.

Adventurer's Realm was at the World of Commodore Show at Darling Harbour in July to answer adventure queries. Not all could be answered on the spot, so here they are now, among other problems sent into the Realm.

Fiona Giffiths of Top Ryde, NSW would like to know how to improve health (a cheat will do!) in the game *Elvira*.

Ron Edwards of Concorde is stuck in the Paradise Hotel in the game *Gold Rush*. "What do you say to the Clerk?" asks Ron.

Benjamin Clarke of Bankstown is stuck in *Heroes Quest*, in particular, he is stuck in the bandit's hideout. Something to do with the chandelier, maybe?

Elvira again! This time troubling Gary Antony of Campbelltown. He wants to know how to get the dagger and the scroll, and how to kill Elmelda's mother. Eek, nasty!

Brad from Chippendale is stuck in ... (whoops! the name of the game isn't recorded). Anyhow he cannot get past the pit on level 4. The doors in the other corner close when he enters the room. Can anyone make sense from these bits of info?

Christopher Brisbin is having all sorts of problems in the game *The Jetsons*. He has discovered the coloured Pentagonal door to the lost city, and he has also found the Universal Harmoniser - but how does he use it? How can he also get to successfully meet the king? Chris is getting desperate, so please help!!

Terry Travers from Cairns in Qld would like some general hints for *Heroes Quest*. Please send them to 38 Barclays Rd, Brinsmead Glen, Cairns, Qld 4870.

Stuart George (Springvale, Vic) is stuck on the last problem in *S101: Sorcerers Get All The Girls*. He is trying to get the whale to do nasty things on the appliance, however, he is limited to just three moves. Any takers?

Veteran adventurer David McKinney is stuck in a game called *Captive in Phoopet*. He is on the third planet on the second mission. If anyone has solved this planet, could they please drop David a line at: 126 Norton Street, Leichhardt, NSW 2040.

Aaron Davis of Werribee in Victoria would love to know how to get the cauldron from the witches and to climb the mountain in *Black Cauldron*. ❑

The Dungeon by Kamikaze Andy

Over the past few years, the surge in the role playing niche of computer software entertainment has been phenomenal across all systems, including the Amiga.

Since this is the 5th Anniversary of the Realm and a special occasion all around, Marvellous Mike Spiteri has assigned me the task of looking at the year 1991 in terms of RPGs for the Amiga.

What are some of the great (and not so great!) games that have surfaced down under in the past nine months? What masterpieces are due to appear by the end of the year? Since next month's edition of the Dungeon is another milestone due to it being the Dungeon's 3rd Anniversary, I will look at the future of RPGs then. For this month's Dungeon, we turn the clock all the way back to New Year's Day, 1991.

T'was the month of January, and lo and behold, the magic of *Chaos Strikes Back* finally appeared on the Amiga. Truly the son of one of the greatest games of all time, *Chaos* provided another 10 hellish levels for RPG fans to hack and slay, culminating in the final destruction of Lord Chaos. Although the graphics and sound were basically the same as *Dungeon Master,* the superb gameplay in *Chaos* made it one of the biggest Amiga sellers ever.

This title was challenged by Mindscape's *Captive,* another 3D RPG in the *Dungeon Master* mould, but this time set in the nether regions of space. You directed a party of four droids (using a remote control laptop) in their exploration of 10 Interplanetary bases, in the hope of finding the Space Prison where you were being held. *Captive* had some sublime animation, sensational sound effects, and boasted gameplay that equalled *Chaos* and in some cases, surpassed it.

Bard III - a disappointing conversion

The third RPG that appeared in January was Interplay's *Dragon Wars*, which used an expanded *Bard's Tale* interface. *Dragon Wars* had great graphics, superb music and sound effects (the best of any RPG this year), but suffered from major bugs and horrendous disk loading problems.

Beware the Ides of March, for during the month two new RPGs appeared. The first was the long awaited *Bard's Tale III: Thief of Fate*. Unfortunately, the wait had been in vain for Electronic Arts chose to port the 16 colour IBM version over to the Amiga, which virtually destroyed the game. Though the excellent gameplay of the C64 version was there, the technical aspects of the 16 bit version fell far short of acceptable Amiga standards.

Happier tidings came with the arrival of SSI's *Eye of the Beholder,* yet another *Dungeon Master* derivative but set in the AD&D world. Thankfully SSI made full use of the Amiga's graphics and sound capabilities, and *Eye of the Beholder* has now become one of the best Amiga RPGs ever. Perhaps the only complaint can be its ending, which can best be described as pathetic given the effort put into the rest of the product.

Recently, Paragon released *MegaTraveller*, a space-based RPG that also uses 32 colours on the Amiga, and features a strong storyline as well. SSI has shipped *Death Knights of Krynn*, the sequel to its bestselling *Champions of Krynn*, and initial sales figures are positive. *Death Knights* features brand new spells, new characters, and a completely new plot, but it also suffers from symptoms of sequelitis - being too similar to its predecessor.

Although it may look like the humble C64 did not receive much attention from RPG publishers this year, I should point out that games like *Bard's Tale III* and *Dragon Wars* had been released for the machine some time back. *Death Knights of Krynn* has just made its way to the C64, but perhaps the most exciting news for 8-bit owners was the release of Origin's *Ultima VI*. Featuring an exceptional story and some well executed graphics, *Ultima VI* on the C64 should be sampled by every owner.

Next month, I'll take a peek into the rest of the year in role playing games, and even from this stage it's looking pretty good! Some tantalizing titles include *Ultima VI* for Amiga, *MegaTraveller II, Might and Magic III,* and more!

Cheap Hint Books

The Official Adventurers Realm Hint Book is out now at newsagents all over the country. It contains detailed hints for over forty new and old adventure games. A bargain at only $9.00 - limited edition.

Hints, tips and Wonderful bits

Game: Champions of Krynn

Help: In combat, hold down the space bar and the monsters will all skip their goes rendering them helpless, and allowing you to win the hardest of fights with the greatest of ease. (Thanks to Anthony Stubbs for that cheat hint).

Game: Ultima V

Help: The word of power to the Dungeon Shame is Infama. The black potion makes you invisible, the green makes you sleep, the yellow heals, the white reveals, and the purple potion is very ratty. The lady innkeeper will sell five skull keys for 100gp.

Game: Secret of Monkey Island

Help: To defeat the Sword Master, you need to get some training from Captain Smirk (30 pieces of eight). Keep fighting the pirates (and learning insults) until they say you can beat the Sword Master. Put the pet piranha poodles to sleep with some meat topped with yellow-petal sleeping sauce.

(Thanks to Kamikaze Andy - from a soon to be available hint sheet).

Game: Gold Rush

Help: In Panama, any path which doesn't say ouch is the wrong path. The command you need when you are at the oxen on the hill is UNHITCH. Lock the wheels when you go down the hill. Go fishing to survive at Cape Horn. Metal scraps act a weights, paper clip is the hook, shovel handle is the pole, and pig meat is great bait.

Game: Wonderland

Help: You can get past the rabbit - just be persistent. Close one of your eyes when looking through the telescope. A chunk of mushroom could prove quite handy and tasty.

Game: Pool of Radiance

Help: To fight the Vampire, destroy his coffin first. The when you meet him, follow him back to his coffin. A useful weapon can be found around some of the buildings in Pool Plaza.

Game: Police Quest II

Help: Keep far right when you are walking in the sewers. You should eventually find some form of protection. Use some sticky tape to get fingerprints.

Game: Legend of the Sword

Help: Give the dog a broken bone. Kill some humanoids using the hunting knife from the old keep. Belar will shoot the turtle if you ask him (you'll need the long bow and quiver).

Game: Kings Quest IV

Help: Swap the diamonds with the fisherman, then with the right bait, do some fishing. Look like a king to cross the waterfall. Use the flute to get past the snake.

Game: Zak McKracken

Help: On the plane, really annoy the hostess by doing things like cooking eggs in the microwave, flooding the toilets, and opening all the compartments. At Lima, some stale breadcrumbs will bring you some new friends.

Game: Leisure Suit Larry III

Help: Need a skirt? Try the grass outside Chip'n'Dales. Wear your cabaret outfit to the lawyers. The locker combination is behind the card. Shower before you leave Fat City.

Game: Journey

Help: At the Woodelf by the stream, remember the words spoken to you by Hurth. Also remember that Agrith is your friend. Use some fire to pass the snake trees.

Game: Sorcerers Get All The Girls

Help: To solve the maze, map it and record the letter in each room, and you will find the way out. To survive on an island of women, you need to dress up as one. Lift the bed for a bonnet. To have more time in the restaurant, keeping going in and out.

Game: Space Quest III

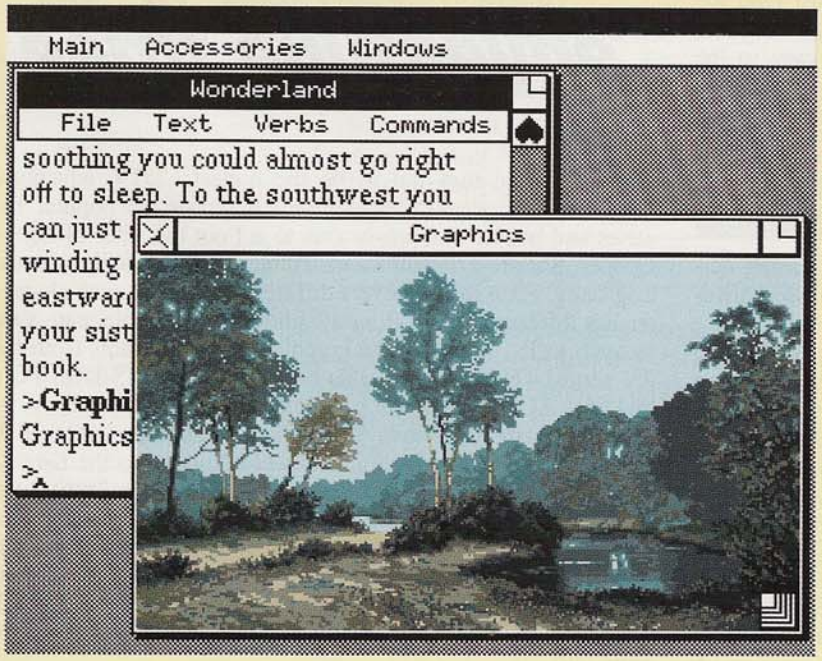
Help: Kill the terminator the same way you have probably been killed by the black pods, then pinch his belt. Use the grabber to move the warpmotivator into the ship. Pole vault across the chasm.

Game: Uninvited

Help: Use the noghost spray to get rid of Scarlet. Even spooks are scared of spiders. In fact, spooks don't even like lit candles. Smash open the jar in the safe to compromise with the Red Devil.

Game: Mortville Manor

Help: To enter the crypt, put the ring on top of Madonna's orb and turn it. Search the body for the wooden object. In the cellar, put the dagger in the deep diamond shaped opening.



Wonderland

Help, Help & more Help or the Smart Adventurers Dept.

The response to Dennis Wyers plea for *Last Ninja* help has been outstanding. The following people sent in pages of hints and tips for Dennis ...

Raymond Hantley (Orange, NSW)
Cobra, Giulian Aslett (WA)
Walter Brank (Kewarra Beach, Qld)
and unsigned from Penrith, NSW.

Unfortunately, there is not enough space here to print the hints sent it, so I will send all the hints directly to Dennis in Drouin. A big thanks to those who responded to Dennis' plea.

Game: Gremlins
From: David Couche (St Agnes, SA)
For: Mike Iama (Kenmore, Qld)
Help: To use the camera, pressing the button sets of the flash unit, which scares the gremlins and drives them away. Not needed until much later in the game. The pelzter is a remote control unit which activates several different appliances in the kitchen. Keep pressing the button until you get Gizmo from the chute, and the knife and igniter from the drawer. To deal with the dart throwing gremlin, kill it with the knife.

Game: Sorcerers Get All The Girls
From: Stuart George, Springvale, Vic.
For: Stanley Liu, Rowville, Vic.
Help: In the library, cast the SKONN spell on the bust and go up and get and open the box, which is the KABBUL spell for restoring lost souls.

Game: Kings Quest II
From: Stuart George, Springvale, Vic.
For: Kristian Adamson
Help: To open the magical door, first you must read the magical door then get the caged bird from the witches cave, then go to the shop and buy the lamp. Give the cage to the woman, go outside and rub the lamp twice. Ride the carpet. Kill the snake and you should find the key in the cave. Ride the carpet to get back down. ❑

CLEVER CONTACTS

Two more clever contacts to join our ever increasing network of contacts. Always enclose a stamped addressed envelope when writing to clever contacts!!

Anthony Stubbs of 66 Hoskins Street, Nyngan, NSW 2825 can offer assistance with ... *Captive, Pools of Radiance, Curse of Azure Bonds, Secret of Silver Blades, Champions of Kyrnn, Kings Quest, Bloodwyche, Dracula Pt3, Curse of Sherwood, Wolfman Pt 1, Labyrinth, Bards Tale III, Hitchhikers Guide.* Mick and Meredith Blackmore of P.O.Box 1356, Swan Hill, Vic 3585, can offer help with ... *Maniac Mansion, Castle of Terror, Lost City* and *Oasis of Shalimar.*

A complete updated listing of clever contacts can be obtained by writing to the Realm (re: Hint Sheets). Finally, a big thank you to all the clever contacts - you are all doing a marvellous job! ❑

Adventurers Realm 5th Birthday Nostalgia Competition

Main Prizes:
C64 Adventure Game Pack Dracula/Wolfman/Frankenstein
C64 Adventure Game Pack Scott Adams Adventure 1 to 12.
C64 Adventure Infocom Classics Zork II and Zork III.
Amiga 512k: Arcade/Adventure Weird Dreams
Amiga 1mb: Super Strategy Wargame - Fire Brigade

Runners-Up
The Official Adventurers Realm Hint Book (2 copies).
You can win any of the abovementioned prizes. Simply send me a list of your all time Top 5 adventure games, and also mention what prize you'd like to have if you do win. All the entries will be put together until we are left with a list of ten top adventure games. Entries closest to the final top ten will win a prize. If there are more winners than prizes, then the winners will be drawn. The closing date is October 15th, and winners will be listed in the December Issue.
All entries must be sent to....

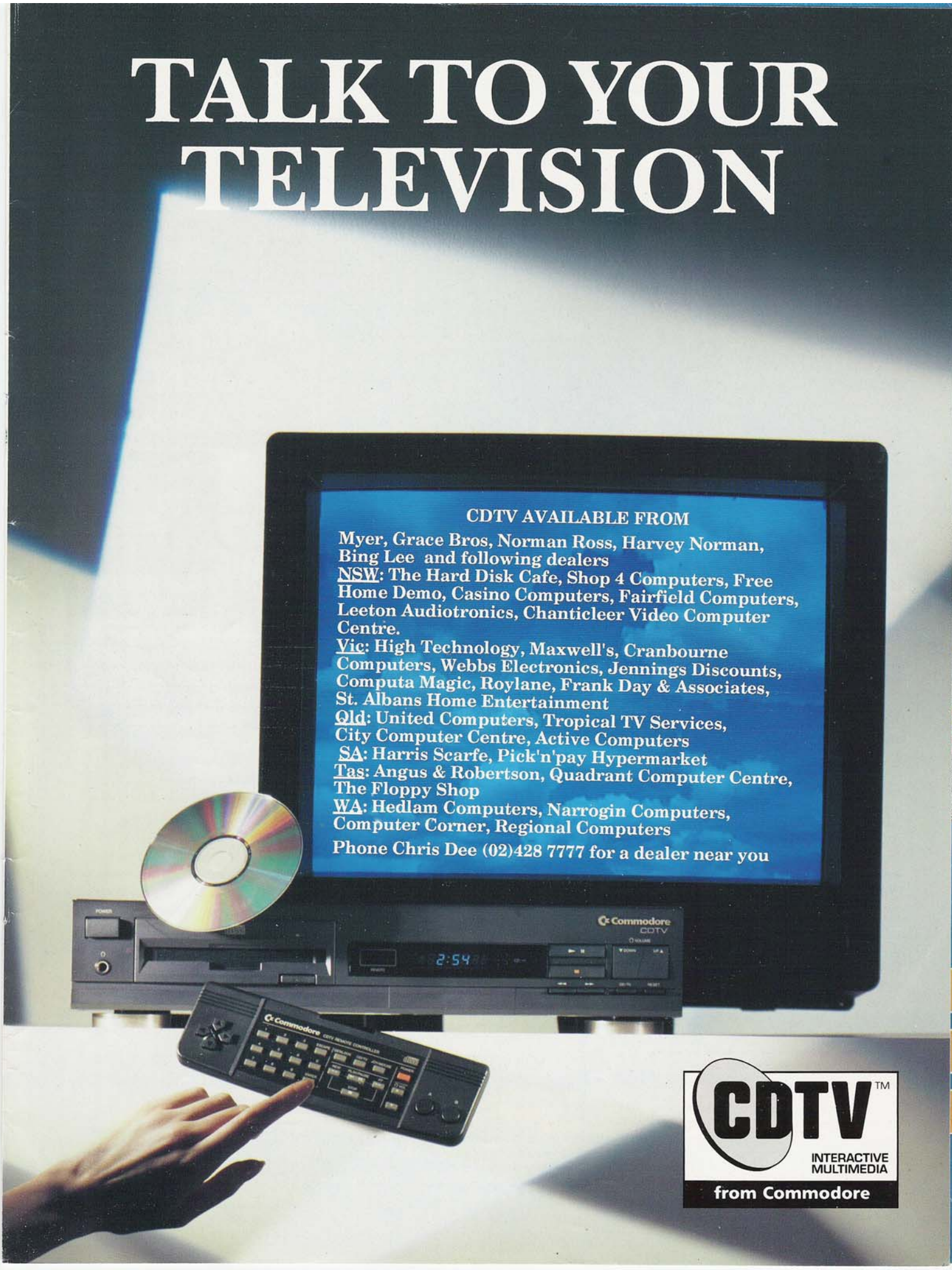
Realm's Nostalgia Competition
12 Bridle Place
Pakenham Vic 3810

New CDTV adventure titles

What could turn out to be the hottest CDTV adventure release is *Twin Peaks Confidential* - based on the popular TV series and books. The player gets to act out the roles of Agent Cooper, Sheriff Truman, Laura Palmer's Ghost, and even the Log Lady. Each role uncovers different clues, and each character has different talents (Laura's ghost, for example, can walk through walls!). Most of the graphics are actual shots from the TV series! This game will also be available on MS-DOS PC's that have a CD-ROM drive connected and heaps of memory.

Sierra plans to release *Kings Quest V* and *Space Quest IV* on the Amiga CDTV, and also newer additions to the *Leisure Suit Larry* series will be released on CDTV. Free Spirit Software are also concentrating on producing adventure games for the CDTV. The first adventure release will be a 4-in-one Adventure CD pack containing mystery / haunted house / ghost story type adventure games. Expected to be released this month at a very reasonable $70. Contact Briwall (06 288 0131) for more info. ❑

TALK TO YOUR TELEVISION



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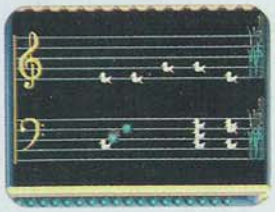

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The Juilliard School of Music

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