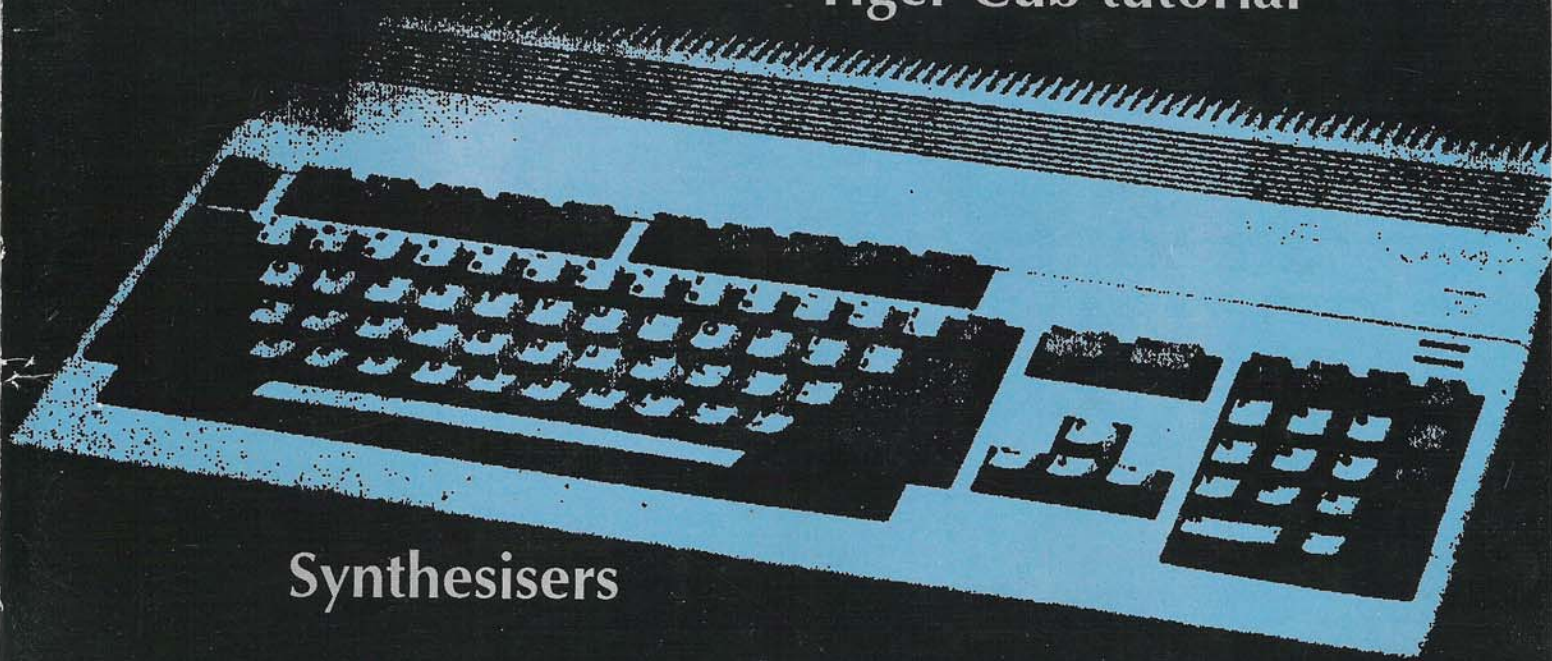


The Australian COMMODORE and AMIGA REVIEW

Pagefox: DTP for
the C64

Handyscanner 64

Tiger Cub tutorial



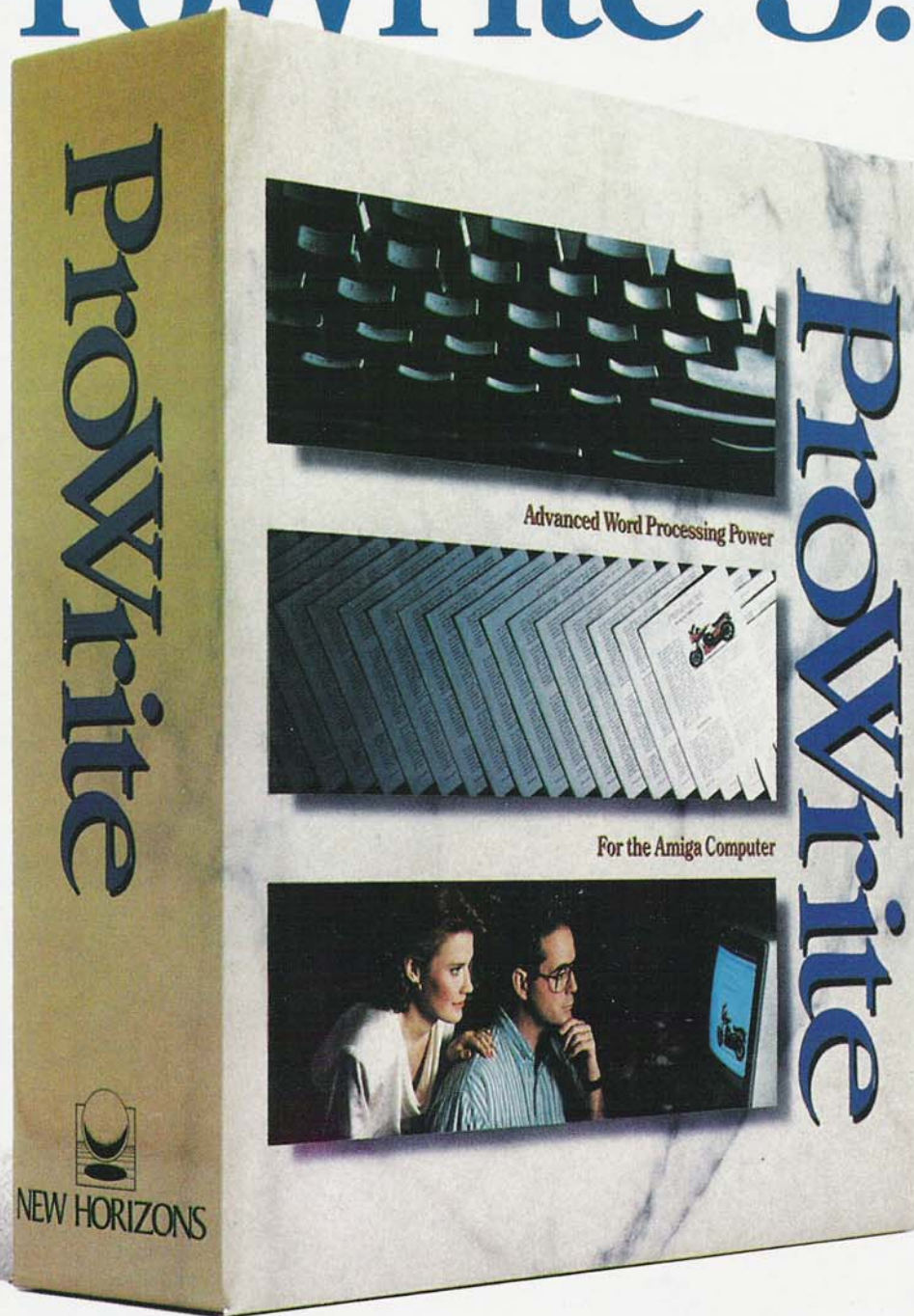
Synthesisers

Tiger Cub & C64 column

Game reviews:
Killing Gameshow
Terran Envoy
Unreal
Wings

Amiga meets Big Blue

ProWrite 3.0



Finally, the word processor the Amiga[®]
has been waiting for.

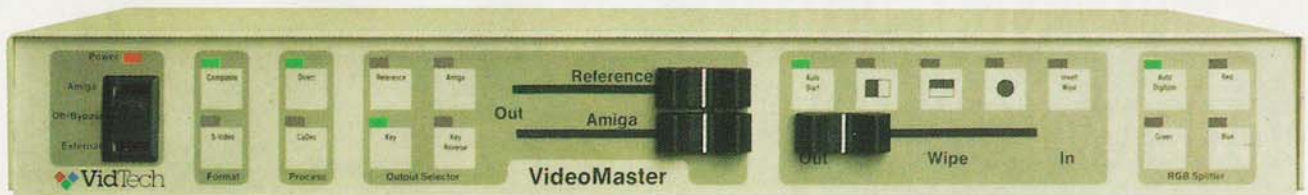
Distributed and Supported in Australia by:

COMPUTERMATE
products (australia) pty. ltd.

9 High St., Mr. Kuring-Gai, N.S.W. 2080.
Ph: (02) 457 8388 Fax: (02) 457 8739
Technical Support Number: 457 8548

VideoMaster

The Integrated Desktop Video System For Amiga Computers



VideoMaster integrates in a single system all the functions necessary to transform the Amiga computer into a fully featured multimedia workstation without using the video slot. VideoMaster performs the following functions:

- ◆ Genlocks the Amiga graphics to incoming composite (PAL or NTSC) or S-Video source (S-VHS, Hi8 or ED-BETA).
- ◆ The genlocked video production is available in composite and S-Video formats as well as RGB for optimum graphics.
- ◆ A built-in RGB splitter provides for direct connection to a digitizer including a compatible interface to Digi-View Gold 4.0.
- ◆ A special effects generator produces horizontal, vertical, circle and inverted wipes—automatically timed or manually controlled.



Two Models

NTSC (RS-170A) and S-Video
PAL and S-Video 625

The S-Video, Y/C signal is processed independently in, through and out.

"Glitch Free" Switches

Cut to any Amiga/Reference video combination in the next frame of your recording with no flicker or artifacts.

Dissolve Control Bars

Dissolve to any Amiga/Reference Video combination. Also dissolve to black.

Wipe Switches and Control Bar

Vertical, horizontal and circle wipes timed by VideoMaster or controlled manually. Inverted or combined multiple wipes for special and unusual effects.

Digitize External Images

Connect your Digi-View Gold 4.0 digitizer, set RGB splitter to Auto and VideoMaster will synchronize the digitizer to R, G and B signals. Under manual control, select RGB sequence and interface to most commercially available digitizers—no B & W camera with color-wheel required.

**The S-VIDEO GENLOCK
for all Amigas
A-500/A-1000/A-2000/A-2500/A-3000**

RGB Processor

VideoMaster generates RGB video and graphics for direct connection to an RGB monitor or projector. The standard Amiga monitor can display reference video and Amiga graphics optimally in RGB mode.

Transcoding

Create composite productions from S-Video reference source. Create S-Video productions from composite reference video. VideoMaster output is continuously available in all three formats. (Composite, S-Video, and RGB).

Record with No Reference Video In

No problem! VideoMaster generates internal sync to allow the Amiga artist to record his animation in either composite or S-Video.

Amiga RGB Session

No recabling! Set VideoMaster to Off/By-pass and develop RGB graphics for your next production.

Key Out

Compatible with the video mixer in your studio ensemble.

Leave your Amiga Video Slot Open

For use with other video add-on cards that add sizzle to your productions.

External Power Supply

Required for A-500. Optional for all other Amigas.

Dealer Demonstration Program

Video dealers should contact VidTech for details.

Warranty and Support

VideoMaster comes with a full year warranty.

VideoMaster - Advanced Genlock

RRP \$2,495

Scanlock - Basic Genlock

(No wipe, digitiser, RGB functions)

RRP \$1,895

Call us now

Color Computer Systems P/L
(09) 349 6492 Fax: (09) 385 1816

DEALER INQUIRIES INVITED

 **VidTech**

The Australian COMMODORE and AMIGA REVIEW

Editorial	<i>A meagre editor speaks!</i>	4
Ram Rumbles	<i>Landsat Amiga</i>	6
Notepad	<i>What's new?</i>	10
<hr/>		
Amiga		
C Compiler Comparison	<i>M. Taylor</i>	<i>public domain C compilers</i> 26
Beginners Start Here	<i>A. Leniart</i>	<i>discovering the CLI</i> 19
KCS Power PC Board	<i>G. Kimpton</i>	<i>MS-Dos for the A500</i> 18
<hr/>		
C 64 / 128		
Pagefox	<i>E. Holroyd</i>	<i>classy DTP for the C64</i> 38
C64 News		9
Sound & Graphics	<i>G. Perry</i>	<i>Bit - mapping</i> 65
Handyscanner 64	<i>E. Holroyd</i>	<i>scanning comes to the C64</i> 46
<hr/>		
Music		
Buying a Synth	<i>D. Rutter</i>	<i>a brief look at what's around</i> 23
Synth history	<i>D. Rutter</i>	<i>from humble beginnings ...</i> 22
Tiger Cub	<i>E. Holroyd</i>	<i>Tutorial</i> 48
<hr/>		
Education		
Picture Book	<i>A. Glover</i>	<i>stories for the young</i> 60
Education Column	<i>A. Glover</i>	<i>what program for kids?</i> 57
<hr/>		
Entertainment		
That's Entertainment	<i>P. Campbell</i>	<i>Hints & Tips, Hall of Fame</i> 72
Game Reviews		<i>Atomix, Combo Racer, Wings Skidz, Unreal, Terran Envoy Rorke's Drift, Killing Gameshow</i> 75
Quick Shots		<i>A first glance at new games</i> 78
Adventurer's Realm	<i>M. Spiteri</i>	<i>Help for problems, clever contacts, The Dungeon</i> 86
<hr/>		
Advertisers Index		88

Australian Commodore Review: 21 Darley Road Randwick,
NSW 2031 Phone: (02) 398 5111
Saturday Magazine Pty Ltd.

Published by: Andrew Farrell
Editor: Phil Campbell
Entertainment Section Editor: Ken Longshaw (02) 398 5111
Advertising: or (02) 817 2509
Brenda Powell

Production: Andrew Dunstall
Layout: Darrien Perry (02) 398 5111
Subscriptions & back issues: NETWORK Distribution
Distribution: Ian Liddell Pty Ltd
Printed by:

**VOL. 7
NO. 11
NOVEMBER
1990**

Beauty and Functionality Redefined

THE NEW IMPACT SERIES II™ A500-HD+

The Next Generation in Amiga® 500 Add-On Peripherals

IMPACT

Series II

Turn your A500® into a Serious and More Fun Computing Tool Today!

GVP's New SERIES II A500-HD+ is The Ultimate in Hard Drive, Memory and Expandability for your Amiga 500. Major features include:

Leading Edge

Same high-tech custom VLSI and **FAAASTROM™** features as GVP's new Series II A2000 SCSI-RAM Products.

Foresight

Unique new "Mini-Slot"™ brings out all the A500 expansion bus signals, allowing for exciting future expansion options – the only intelligent alternative to risky "Pass-Through" functionality.

Reliability

Includes internal fan to keep you cool and robust power supply ensuring your A500 power supply will not be overloaded. GVP will not compromise on quality and reliability!

Memory Expansion

Internal RAM Expansion up to 8MB using easy-to-install SIMM memory modules.

Sleek

Custom injection-molded styling perfectly matches your A500 for unequaled beauty and elegance, setting a new standard for A500 peripherals.

State-of-the-Art

New 1"-high internal hard disk drive, available from 40MB through 100MB.

Performance

Provides no-compromise hard disk performance which until now has never been seen on the A500.

Seeing is Believing

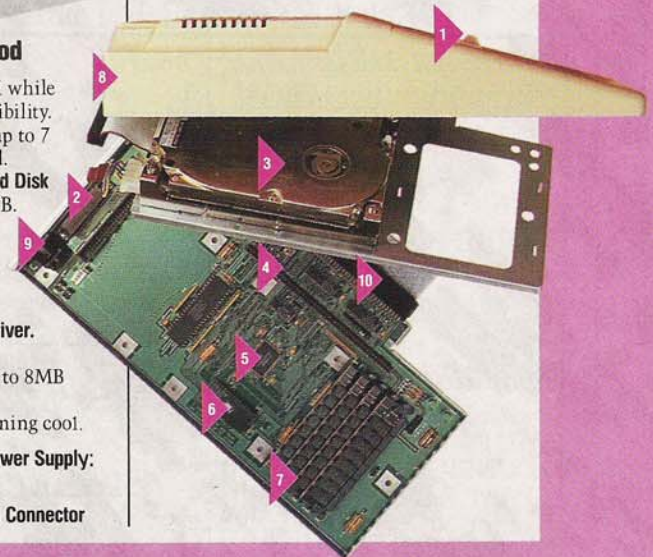
Take one for a Test "Drive" at your nearest GVP Dealer today!

Call for Special End-User Trade-Up Details!



Take a Look under the Hood

- 1 Game Switch: Enables RAM while enabling full game compatibility.
- 2 External SCSI Port: Allows up to 7 SCSI devices to be attached.
- 3 1"-High Factory-installed Hard Disk Drive: 40MB through 100MB.
- 4 "Mini-Slot": For future expansion options.
- 5 GVP's Custom VLSI Chip.
- 6 GVP's **FAAASTROM** SCSI Driver.
- 7 Internal RAM Expansion: Up to 8MB
- 8 Internal Fan: Keeps you running cool.
- 9 Dedicated Universal Input Power Supply: Included.
- 10 Reinforced 86-PIN Card Edge Connector



GVP

Educational pricing program now available.

Series II, FAAASTROM and GVP are trademarks of Great Valley Products, Inc. Amiga and A500 are registered trademarks of Commodore-Amiga, Inc.

Distributed in Australia by

Power Peripherals Pty. Ltd. Expansion Solutions

P.O. BOX 555, LAVERTON, MELBOURNE, VIC 3028 AUSTRALIA
PHONE (03) 369 7020 FAX (03) 369 7020

Regional Computers

Amiga Expansions

512K memory A500	\$99.99
1MB A1000/500 external	\$299.00
2 MB A500/1000 external	\$399.00
512K with switch and Batt....	\$120.00
8 MB A2000 2MB populated	\$540.00

GVP Series II Hard Drives

A500 45MG Quantum	\$1295.00
A2000 HC8/40MB	\$1199.00
A2000 HC8/80MB	\$1299.00
A2000 HC8/100MB	\$1499.00

Additional Simm memory
for GVP \$CALL

A590 Hard Drive	\$579.00
3.5" external drive and switch	\$149.99
5.25" external drive	\$259.00
Power PC Board	\$649.00
Mouse	\$39.99
Cyclone Hardware	\$30.00
Action Replay	\$150.00

Printers

Star LC 10 2	\$349.00
Seikosha 24 pin	\$499.00
Star LC 24 10	\$549.00
Star NX 1000 Col	\$399.00
Commodore MPS 1230	\$279.00

Cheap Disks

3.5" DSDD 79c

Amiga 2000 Special
\$1549.00

Amiga 3000 CALL
Amiga Monitor
\$449.00

XT-AT Bridge
Boards CALL

Free catalogue SAE
Public Domain incl
disk \$1.50

We are the cheapest!

018 911 011 or 09 328 9062
PO Box E265, Perth 6001
611 Beaufort Street, Mt Lawley
Perth 6050 WA

BREAKING THE PRICE BARRIER

AMIGA 1 MEG memory boards
dramatically reduced

\$ 2 9 9

Two boards in One!

FREE Bonus offer, XEL hardDrive interface
included, save \$200 off
the price of a complete hardDrive.

**Fully
populated**
with 1MB of
AUTO-
CONFIGURED
FAST RAM for
your 500 or
1000
computer.

Hard Drive Options

* 30 Meg	\$899
* 40 Meg	\$1099
* 60 Meg	\$1299
* 105 Meg	\$1799
* Hard drive Kits	\$195

**XEL Pty
Ltd**

G.P.O. BOX 121 Adelaide. 5001
Phone 08-2317396 or 018-824648 anytime.

Editorial

By now you've probably seen Commodore's latest advertising campaign designed, according to the creators, to make the Amiga appeal to both parents and the teenage majority who use the machine most. It was great to see animation by some of Australia's leading Amiga artists, including Andre Alexander, David Boddy, Wal van Heckeren and numerous snippets from overseas work, included in the commercial.



The result is a high energy action packed thirty seconds which manages to capture much of the spirit of Amiga in so much as it demonstrates the amazing graphics very well. How well this sells computers over the next two critical months remains to be seen. Last year Commodore sold out of Amiga 500's. In theory, the more Amiga's out there, the better support for the machine will be in the future.

In C64 land, sales have just enjoyed a major boost, with a large number being imported into China (see Ram Rumbles for details). Will Commodore arrange development of special Chinese software? We shall have to wait and see. With budgets tight in this time of economic moderation, things will be moving at a different pace in the marketing world.

Of course, at the same time the Amiga may well enjoy new opportunities as a true cost cutting device. As more people decide to stay home instead of paying meal and travel costs whilst on expensive outings, home computing may well enjoy a new surge of interest. Computing on a budget will feature in next month's *Commodore Review* - so don't miss that one.

One of the saddest things is seeing people buying MS-DOS machines for home use, expecting the same sort of graphics and sound they see and hear pumping out of an Amiga. How disappointed they would be if only they knew an Amiga can read and write MS-DOS disks anyhow (for taking work to and from the office) and it is bound to entertain for many more hours. So, it's up to us as consumers to tell our friends to buy Amiga. Of course, if you really don't like someone, tell them to buy Atari!

Andrew Farrell

GVP Announces a Technological Breakthrough...

SERIES II™

THE NEXT GENERATION

in SCSI and RAM Controllers for the A2000™

IMPACT

Series II

GVP's New SERIES II A2000 SCSI and RAM Expansion Controllers provide the ultimate hard disk and RAM expansion solution for the A2000. Choose from two new models:

The Series II A2000 SCSI "Hard-Disk + RAM-Card"

- State-of-the-Art integration packs a high performance SCSI controller, 8MB FAST RAM Expansion and a 3.5" hard disk drive INTO A SINGLE A2000 EXPANSION SLOT!! Saves BOTH a valuable expansion slot and a peripheral bay!
- Incredible SCSI hard disk performance achieved through GVP's innovative new custom chip design, which provides DMA performance and unique direct dual port memory access to FAST RAM, eliminating typical DMA side effects under heavy graphics load.
- Easy-to-install SIMM memory modules allow flexible memory configurations from ZERO through 8MB. Supports 6MB FAST RAM configuration for BridgeBoard users.
- NEW **FAAASTROM™** SCSI Driver offers optimum performance and includes such features as:
 - ✓ Supports virtually any SCSI device including, CD-ROMs, Tape Drives, IOMEGA Bernoulli drives, etc.
 - ✓ Fully implements SCSI Disconnect/Reconnect protocol, allowing overlapping SCSI commands to be executed.

- ✓ Fully implements Commodore's Rigid Disk Block (RDB) standard as well as the new DIRECT SCSI interface standard.
- ✓ Removable media drive support. Automatically senses cartridge changes and informs AmigaDOS, ensuring safe and reliable use of removable media SCSI drives.
- ✓ Allows Direct AUTOBOOT from Fast File System Partition.
- New **INTUITION COMPATIBLE SCSI installation** and "tuning" utility included. Major features include:
 - ✓ ICON and gadget based INTUITION interface.
 - ✓ Bad Block Remapping of hard drives.
 - ✓ Auto or manual hard drive partitioning and AmigaDOS formatting.
 - ✓ Read and modify existing RDB parameters on hard disk.
 - ✓ Simplest and Easiest SCSI installation in the industry.
- **Low parts count (through VLSI Integration) EQUALS:** lower power, higher reliability, longer life and ultimate PRICE/PERFORMANCE! See TRADE-UP offer.

The Series II A2000 SCSI "Hard-Disk-Card"

- Same as above but without the 8MB FAST RAM capability.
- Specially designed for those users who don't need memory expansion but still need maximum hard disk performance at a budget price.
- **UNBEATABLE VALUE.** See \$199 trade-up offer!

GVP's New **FAAASTROM** SCSI driver and installation software is also available as an upgrade kit for GVP's original IMPACT SCSI controllers, for ONLY \$89.95. Offers major performance increase over previous GVP AUTOBOOT EPROMs.

New Series II 48MB Removable media hard disk drive. GVP now also offers the NEXT GENERATION removable media hard disk drive which offers increased capacity (48MB formatted) and major technological advances in cartridge air flow filtering design and robustness. Call for details.



1990

SCSI TIMES

The ULTIMATE Trade-Up Offer???

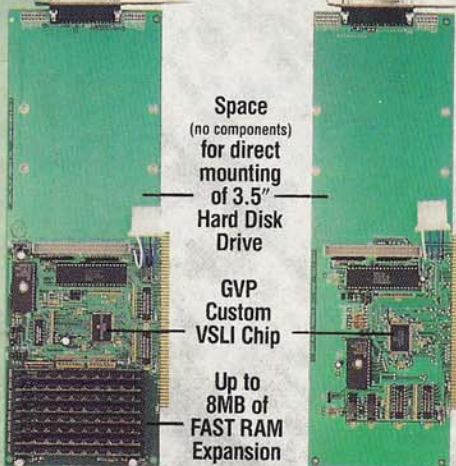
GVP today introduced its new Series II product line and announced a bold new trade-up program, which is certain to further bolster GVP's dominant market share in the Amiga hard drive market.

Details of GVP's new TRADE-UP program are as follows:

- For \$199 plus \$6 for shipping (Aus only) end-users can trade-up to the new GVP Series II SCSI "Hard-Disk-Card" (without drive) by simply sending in their present SCSI controller (from ANY manufacturer) together with a money order or certified check, payable directly to GVP.
- All trade-in controllers must be sent to GVP **FREIGHT PREPAID.**
- Owners of any GVP or Commodore SCSI controllers, are eligible for an additional \$10 rebate, if they trade-in a FULLY FUNCTIONAL and working controller. These owners need to submit a certified cheque/money order for \$195 only.
- For an additional \$89, existing controllers can be traded-up to the new Series II "Hard-Disk + RAM-Card," which includes the 8MB FAST RAM expansion capability, populated with ZERO RAM.

Hard-Disk+RAM-Card

Hard-Disk-Card



Space
(no components)
for direct
mounting
of 3.5"
Hard Disk
Drive

GVP
Custom
VLSI Chip

Up to
8MB of
FAST RAM
Expansion

"Let's Standardize"

GVP

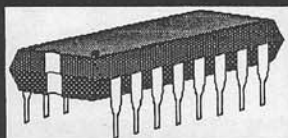
Series II, FAAASTROM and GVP are trademarks of Great Valley Products, Inc. Amiga and A2000 are registered trademarks of Commodore-Amiga, Inc.

Distributed in Australia by

Power Peripherals Pty. Ltd. Expansion Solutions

P.O. BOX 555, LAVERTON, MELBOURNE, VIC 3028 AUSTRALIA
PHONE: (03) 369 7020 FAX: (03) 369 7020

Ram Rumbles



In the Media and Commodores at Work

As the number of "Commodore in the media spottings" has dropped off, we're expanding the criteria for this section to include Commodore computers at work.

Once again, to kick things off, we're offering the best letter published for the next two months, starting next issue, a FREE six month subscription. So start sending those letters!

This month, one of our New Zealand readers reports:

"After returning from a stay in New Zealand for the past six months I was surprised to see the Amiga so widely used in the areas of television. An after school program called "3.45 Live" has a segment called "Software on Elm Street" in which they play games with viewers, show new releases and have the software "Top Ten", all of which is devoted to the Commodore Amiga. Last time I watched it a viewer assisted in capturing criminals in the Amiga version of *Where in the World is Carmen: San Diego*, a review of *Sim City* was also conducted. The same show had all its credits and on screen graphics produced by the Amiga.

"During another educational show, the Video Dispatch, I was surprised to see an article on the Amiga in the textile industry. A lady was touring the country showing off her designer jumpers which with the aid of her Amiga 2500, *Digiview*, *Deluxe Paint II* and some specialist hardware, had made design and production easier. Commodore Banners were everywhere and it was great promotion.

"It is hard to find strong followings of Amigas in New Zealand as the Atari ST is

so popular, one this is for sure, the Amiga is taken seriously in television and video production. I have seen many other shows and ads where it is obvious the Amiga has been used." Fracois Prowse, Alexandra Hills, Qld.

In the first of a number of interesting Amiga applications, Commodore's hard working PR agency informed us of one of the most unusual applications we've seen yet - and one that may well be applied to a number of other industries. The system makes selecting paint colours for your house easy.

Perfect Paint Picking

Painting your house is the easy part. It's deciding the colours that really cause the arguments! The problem is, of course, that most people really don't have any ability to visualise what their house will look like in a certain colour. They're even less able to work out what goes with what. Which colour for the guttering, the window frames, the doors and so on.

You go along to the paint store and you take all those little swatches of colour, and compare them with other colours, and contrasting colours... and end up even more confused than when you started.

Have you ever, secretly, wondered what your house would look like in bright purple? Of course, you'll never know, because you're not going to waste all that paint (and money) to find out. Or take the chance that the next door neighbour will never talk to you again!

Wouldn't it be nice if you could just find out... You can using ColorVision. It

doesn't look like an Amiga - it looks more like a tall box with a TV screen built in. But inside that box is the "works" of a Commodore Amiga computer, and a special program which can show you just what your house will look like.

The first step is to select a house that looks like yours, from ColorVision's in-built picture library. Of course, it won't be exactly the same - but in this case, near enough is more than good enough. Then, using a pointer on the screen moved by rolling a track-ball on the unit, you simply select the colours you'd like to see. Chop and change to your heart's content. Mix colour combinations you'd never even considered.

ColorVision has revolutionised the way people overseas are selecting their colour schemes. It's been a huge hit in the US and even in New Zealand. Now ColorVision is coming to Australia. There are separate programs for inside the house, so you can select furnishing and fittings colours the same way. There's no need to get the lounge recovered to see if you like it that way! In Australia, you're likely to see a ColorVision display unit at major paint and decorating centres

Amiga gets snapshots from space

Over the last 70 years, the CSIRO has been responsible for many of Australia's technical and scientific advances. A recent innovation is an image processing system produced by scientists from the CSIRO Division of Mathematics and Statistics and Curtin University.

Called the A-Image system, it processes images from the Landsat satellite orbit-

Big news for C64 owners

A tremendous variety of Public Domain programs for the C64 and C128. Games, Educational, Music, Utilities, Graphics and Demos.

Examples: (on 16 disk sides) \$32 posted
Gamepak 1 - 157 games
Gamepak 2 - 153 games
Edupak 1 - 267 Educational programs
Edupak 2 - 360 Educational programs

That's real value!

Libraries of disks available for Amiga, IBM and Compatibles and Apple II.

Send for details to:

Allan Crouch
 29 Happ St, Auburn NSW 2144
 Phone : 649 4904

MELTON MANUFACTURING

Freeze Machine's
 Limited quantity
 New low price
\$59.95

Available from:

Melton Manufacturing
 Phone: 088 252 643

or send cheque/money order
 to : P.O.Box 209
 Moonta S.A. 5558
 include's post & packing.
 Trade enquiries welcome

NOW available at leading
 Computer Outlets

COCKROACH SOFTWARE

TURBO ROM

CARTRIDGE ... \$39.95 R.Retail

GRAPHICS

UTILITY ... \$59.95 R.Retail

Dealer Enquiries to:

MULTICOIN AMUSEMENTS PTY LTD
 ph: 075 37 5711 Fax: 075 37 3743

ing high above our planet. Satellites such as Landsat are providing us with an exciting new view of Earth. Landsat transmits its data to an earth receiving station at Alice Springs, where it is recorded on computer tape. This tape is sent to a processing centre in Canberra, which corrects distortions in the data. The A-Image system is able to accept and process the data, so that it is capable of being examined and analysed on a personal computer. While "remote sensing" may not be a new technique, its full power has hitherto been unavailable to the home computer user.

The applications of the A-Image system are many and varied. For example, a farmer might use the images to detect salination or areas of waterlogging on his property. The information gained in remote sensing also has practical benefits in crop forecasting and land use patterns. It has already been used to map rainforest and estimate the extend of bushfires.

A-Image has applications in the marine environment, too: sea surface temperatures and currents can be extracted, identifying likely fishing grounds where the cool and warm currents meet.

Geologists and exploration companies have made use of A-Image in data analysis and display. Projects overseas include water use planning in Sarawak and land use in Thailand.

The A-Image package is designed to operate with the Amiga computer, selected because of its excellent graphics handling capabilities. Any Amiga can be used providing it has at least 1 megabyte of memory. The software makes full use of the Amiga's multiple windows, with pull down menus, mouse control and a display of 4096 colours. A second disk drive is recommended.

Cost of the data provided by Landsat is quite economic, especially considering the value of the hardware which provides it! An area of 30km x 40km costs a little over \$100.

A-Image is designed to help the user gain important information from a satellite image. To do this, it features a three colour display, grey level or pseudo colour display, together with various indices and filters.

From the original data, the computer could highlight areas of rainforest, or irrigations, etc. But it goes much further than that. The "negative zoom" allows users to pinpoint specific areas of interest, and the software will determine line and pixel coordinates and colour levels for any selected points.

Optional statistical routines can then determine a typicality index and the probabilities of certain "class labels". For instance an image could be classified to show the atypical areas of a region in a contrasting colour.



CHARLIE'S COMPUTER WORKSHOP

COMMODORE REPAIRS
& SPARE PARTS

★ MAIL ORDER PARTS ★

FAST SERVICE at
REASONABLE PRICES

★ REPAIRS by MAIL ★

Open weekdays 8.30 - 5.00

2A HARPER ST.
ABBOTSFORD VIC.3067.
PHONE: (03) 417 4644

C64 SOFTWARE

EXTENSIVE RANGE OF PUBLIC
DOMAIN SOFTWARE FROM UK,
USA, AUSTRALIA.
EACH DISK CONTAINS MANY
EXCITING PROGRAMS FOR ONLY
\$5 PER DISK.

● SPECIAL ●
INTRODUCTORY
OFFER

5 DISKS - \$20

+ FREE CATALOGUE DISK

● GAMES ● GRAPHICS
● UTILITIES
● TUTORIALS

IMMEDIATE DELIVERY

PLEASE SEND 5 DISK OFFER
\$20 CHQ/M.O. ENCLOSED

Please tick your preference(s):

Games Computing
 Art General

PLEASE SEND FREE
CATALOGUE

Name: _____

Address: _____

PostCode: _____

Post To: BRUNSWICK PUBLICATIONS
29 WATSON STREET
BONDI NSW 2026

Update

Well, we have been flooded with so much new stock I don't know where to start. Firstly, some great new education has arrived - Better Spelling for Ages 8-Adult, Better Maths for Ages 12-16, Maths Mania for Ages 8-12, and Magic Maths for Ages 4-8. These are all available on the Amiga, C64 and PC. Specifically for the Amiga The Three Bears, a great educational adventure for Ages 5-10, and Junior Typing for Ages 6-14.

Fun School 3 has just arrived for the Amiga. There are three great titles ranging from pre-schoolers up to secondary. Each title covers six different subjects to help the child in logic and reasoning.

In Entertainment, Atomix has just arrived and is a very addictive game where you move molecules around to construct the required atom. Available on Amiga, C64 and PC.

Don't forget our other great titles such as West-Phaser, Superman, Sherman M4, Tennis Cup and Emlyn Hughes Soccer.

Great new books such as The Leisure Suit Larry Story, which is a book of Hints, Tips & Tricks for all the Larry series. Also, Take Off, a book to help you with Micro Soft Flight Simulator. Remember Corish's Hints, Tips & Pokes, which is a book covering over 400 games and adventures.

For home and small business we have the Business Card Maker and a wide selection of Word Processors, Data Bases & Spreadsheets for all computers. Also, we have Scanners available for the Amiga and PC.

If you would like a complete copy of Packtronics price list please call on 7484700 or (008)227 465.

Advertisement

THE AMIGA 500 PC/XT IS HERE



**RUN PROFESSIONAL
MS DOS SOFTWARE
ON YOUR AMIGA 500
AT A PRICE YOU CAN AFFORD**

KCS POWER PC BOARD

WHY DID YOU BUY AN AMIGA 500?

Of course, because of its superb graphics, music and animation capabilities. However if you want to get serious, you soon realise that it is distinctly lacking in memory and professional software.

Well - They Said It Could Never Happen - But It's Here At Last!

You! In your own home can transform your Amiga 500 into a real IBM compatible PLUS up to **ONE AND A HALF MEGABYTE** Amiga memory expansion.

It's simple - No screwdriver, no soldering iron and no technical knowledge required. Just turn your Amiga over, open the cover, slide the Power PC Board into the connector, close the cover and your Amiga PC/XT is ready. (In other words, no loss of guarantee)

You are now ready to use a wealth of professional MS DOS software at speeds faster than a PC/XT (ind. review). **and in colour**, with compatibility thanks to Phoenix-Bios.

You can also rely on the correct date and time at any moment in Amiga and MS DOS mode (with the aid of a battery).

- ★ Video support: monochrome, Hercules and Colour Graphics Adaptor (CGA) (4 and 8 colours)
- ★ Disk support: internal 3.5" external 3.5" external 5 1/4" drive. (Software-upgrade to H/D A590 in pipeline)
- ★ Including MS DOS 4.01, MS DOS shell and GW Basic (market value approx £130.00)
- ★ Including English Microsoft books + KCS manual + FREE software
- ★ Further exciting software upgrades in the pipeline

- ★ Available memory: 704KB + 64KB EMS in MS DOS mode, 1 megabyte + 512KB RAM (disk) buffer in Amiga mode
- ★ No extra power supply necessary thanks to the most modern CMOS and ASIC technology
- ★ OK with TV. No special monitor required

Compatibility is excellent, but no-one can guarantee every single program available therefore if your purchase depends on a particular program, please ask us first or send in a copy of the program. (With suitable S.A.E. if to be returned). Price subject to change without notice.

★ OFFICIAL DISTRIBUTOR FOR K.C.S. ★

HPD Pty Ltd
5-7 Railway Terrace, Dry Creek, SA 5094
PO Box 121, Dry Creek, SA 5094
Phone: (08) 349 8486 Fax (08) 349 4667

DEALER ENQUIRIES WELCOME



News

Melton Manufacturing distribute Freeze Machine

Melton Manufacturing is now manufacturing and distributing Evesham Micro's products for Australia and New Zealand. The first of these products ready for sale is Freeze Machine for the Commodore 64. As this item has been on the market for some time before Melton took over manufacturing, they have started out with a price reduction to try and boost sales. The Freeze Machine will have an RRP\$59.95.

10,000 C64s to China

In the largest sale of C64 computers ever made in the Asia/Pacific region, 10,000 Commodore computers have been ordered by a Chinese trading house for distribution through the People's Republic. The deal was organised through

Commodore's Australian operation.

Managing Director of Commodore Australia, Mr Pat Byrne, said that he believed it was the largest order Commodore had received anywhere in the world for C64's. It is anticipated that the huge volume going into China will assist software developers and writers in the area.

"While there is a vast amount of C64 software around, we think the Chinese are going to need more specialised versions," said Mr. Byrne. "That's good for software writers who can tap into the market." Mr. Byrne did not rule out future orders of even greater magnitude. In fact, he anticipates exactly that. "When you look at the population of China," he said, "even 10,000 computers aren't going to go too far."

Mail List Manager

Keystone Software has released *Mail List Manager* for Commodore 64 and 128 (40 and 80 column). The program features drop down menus, easy to use en-

try windows, quick sorting on any field, view up to 15 records at a time. When loaded, you are given the option of standard US or International addressing, using post office specifications.

With nine pre-designed fields including two or three user defined, no set up time is required. Scrolling is fast, all records are in memory for fast access, fast sorts. Import and export functions, print labels, index cards, name badges. Can use your designs created by Keystone's *Label Maker* version 2 (including printer fonts and colours).

You can elect to print one record at a time, pick and choose for exporting or printing, or print the entire list - you have complete control. *Mail List Manager* features unique select before printing or exporting, use any disk drive at any address, fast Mail List load and save times, insert mode and true caplock mode, fast sorting on any field, find any record in less than a second, supports up to four disk drives and two printers. *Mail List Manager* is published by Keystone Software at a suggested retail price of \$49.95 (distributed by Computermate). Both 64 and 128 versions are included in the same package.



Phoenix

Microtechnologies Pty Ltd

Official Commodore Dealer

A500 Specials

512K internal memory, with clock	\$119.00
512K internal memory, without clock (both with disable switches)	\$99.00

A1000

8Meg Memory Expansion 0K	Super	\$299.00
8Meg Memory Expansion 512K	Specials	\$349.00
8Meg Memory Expansion 1Meg		\$399.00
Hard Disk Controller, Interface		\$350.00
As above Plus 40 Meg Hard Drive		\$950.00

A2000, A1000 and A500

5.25" 880K Drive	\$278.00
Drive Swap switch, Boot from DF1:	\$30.00
Kickstart Swap Switch	\$30.00
New - A2000 ST506 Autoboot controller card	\$250.00

* Amiga, 64 / 128 Repairs - Usual turnaround of 1 week

Visa/Mastercard/Bankcard accepted C.O.D. can be arranged

Call or Fax your order or inquiries through

Mon-Fri 9 am - 6 pm Thur till 9 pm Sat 10 am - 1 pm

Professional Systems & Professional Support

Phoenix Microtechnologies Pty Ltd

18 Hampton Road, Keswick, Sth. Australia 5035

Phone (08) 293 8752 Fax (08) 293 8814

POPULAR MODULE EXCHANGE SERVICE

PARCOM Pty Ltd

Whites Hill Shopping
Village
Samuel St
Camp Hill, Qld 4152
(07) 395 2211

GAINRUN Pty Ltd

7/27 Justin St
Smithfield
NSW 2164
(02) 757 1055

Send your PCB, PSU, Drive or Mouse for next day replacement.

Reconditioned Modules available for most models e.g.

C64, 64C, 1541II PCB	\$99.00
A500 PCB	\$129.00
AMIGA DRIVE	\$200.00
MOUSE	\$50.00
A500 PSU	\$75.00

ALL ITEMS MUST BE COMPLETE AND IN SERVICEABLE CONDITION

TWO MONTHS WARRANTY ON ALL MODULES PLEASE CALL FOR FURTHER DETAILS

Notepad

VideoCenter

Another budget genlock has entered the market from the U.K. G2's new VideoCenter combines the facilities of a Video Mixer, Genlocker and PAL Encoder at an economic price.

The VideoCenter mixes an incoming PAL video signal with the computer output, using sliding faders or under software control. It additionally provides a filtered RGB output and has YC inputs and outputs to take full advantage of S-VHS systems. An NTSC version also available.

MAST in Melbourne

Memory and Storage Technology have opened an outlet in Melbourne. Most popular items will be held in stock and, overnight delivery can be arranged. Ring Stewart Forster on (03) 347 4612.

Desktop Contacts

Desktop Utilities have released *Contact*, from Australian software company CMF

Software. *Contact* promises to make it easier to keep your list of contacts on computer rather than in an address book. *Contact* enables you to maintain a phone and address list of business and personal contacts. *Contact* will print address labels for any or all contacts and can automatically dial the phone for a given contact.

Contact provides automatic sorting of entries. It also has a facility for the user to customise sorting for each entry, using other than the default time in that entry for sorting. The Amiga clipboard is supported to enable addresses to be inserted in word processing documents. For applications which do not support the clipboard, there is also a Type facility to achieve this.

As with other products from CMF Software (*CalcKey*, *SmartKey*, *PostCode*), *Contact* is a pop-up memory resident program, meaning that access to any contact in your list is only a keystroke away. *Contact* has built-in support for ARexx, allowing data exchange between it and other ARexx-friendly applications,

enabling the user to write scripts for particular purposes.

An ARexx routine for selecting a particular class of entries is already provided and will serve as a helpful working example of ARexx scripting with *Contact*. This will become even more important with the advent of Workbench 2.0, which includes ARexx as standard. *Contact* supports all preferences printers, as well as PostScript printers (another first!).

Contact is 100% made in Australia, distributed in Australia by Desktop Utilities, RRP \$60. Contact Joanne Keighley at Desktop Utilities (06) 239 6658 or BBS (06) 239 6659 or Fax (06) 239 6619.

CanDo follow up

INOVAtronic is shipping the first *CanDo* follow up product, *CanDo Pro Pak 1*. *Pro Pak 1* consists of several outstanding, professionally designed decks (*CanDo* generated software applications), powerful utilities for use with *CanDo* and some extremely useful extensions to *CanDo* itself. Strategy and real time games and a paint program, all created in *CanDo*, showcase *CanDo*'s abilities as a multi-talented applications generator, while other new modules

highlight *CanDo* extensibility. The package includes a disk and manual, retails for \$64.95.

CanDo Intro Pak, a tutorial intensive guide to learning the ins and outs of *CanDo*, will also be available soon. This package includes seven decks on a disk, arranged in ascending order of complexity, and an extensive manual which walks the user through a step-by-step description of how the decks were created. *Intro Pak* was designed to bridge the gap between *CanDo* beginner and *CanDo* expert. Technical topics, general scripting, installation, and tool type settings are covered. *Intro Pak* will retail for \$64.95. *CanDo* products are distributed in Australia by Computermate Products - (02) 457 8388.

SuperClips 2

Desktop publishers will be happy to know there is now a range of professional structured clipart including credit cards, dots, equipment, music, industrial, unusual marks and attention getters. *SuperClips* can be used with *Professional Page* and *Professional Draw* desktop publishing software. Grey scale images may be coloured to taste for jaggie-free printing as well as full colour separations, grey scale, or

cont. on p12

<h3>AMIGA BBS</h3>		<h3>Desktop Publishing - File Transfers - Software</h3>	
<p>On-line BBS</p>  <p>Laser printing</p>		<p>Australian distributors - RRP prices inc. tax - ask your dealer or call us</p>	
<h2>Desktop Utilities</h2>		<h3>Consultron</h3> <p>CrossDOS 4.0 new version \$60 <i>The MS-DOS & ST file system for the Amiga. Access disks directly from Amiga applications & utilities.</i></p>	<h3>ASDG</h3> <p>Professional Scanlab \$1400 <i>interface card, cable & software for Sharp high resolution colour scanner.</i> Dual Serial Board \$355 <i>connect & use 2+1 serial devices at once.</i> RESEP 24-bit colour for PPage \$80. Facc II disk accelerator \$45. Cygnus Ed fast text editor \$135. The Art Department 1.0.2 \$150. <i>Fast 24-bit; loader modules also here.</i></p>
<ul style="list-style-type: none"> • 300dpi postscript laser, 180dpi colour inkjet • Amiga software distribution & support • File conversion Amiga/IBM/Mac/Atari/C64 • BBS: prices, news, files; up to 9600 baud • Sharp scanners, inkjet printers • Major Amiga packages supported 		<h3>CMF Software</h3> <p>Contact \$60 <i>Memory-resident contacts manager: phone dialling, address printing (incl. PostScript), clipboard support & A-Rexx port.</i> CalcKey \$30 <i>Memory-resident calculator; Type facility to send results directly to your application; has binary, hex, boolean, square, sqrt etc.</i></p>	<p>PO Box 3053 Manuka ACT 2603 Message Line: 06 - 239 6658 Bulletin Board: 06 - 239 6659 Facsimile: 06 - 239 6619</p>
		<p>Call our BBS - online 7 days/nights. Include \$7-40 \$9-25 in modem setup string to ensure successful connect. Dealer enquiries welcome.</p>	

Making Music is easy with the **KAWAI FunLAB MUSIC SYSTEM**

INTRODUCING THE
COMPLETE MUSIC
SYSTEM FROM KAWAI



- No technical knowledge of MIDI is required to operate the software.
- No external amplification is needed.
- System operates on Amiga 500, 1000, 2000 and 2500.

THE KAWAI FunLAB MUSIC SYSTEM

HERE'S WHAT YOU GET...

KEYBOARD-

A 61 note keyboard with full size keys (colour colour co-ordinated with the Amiga), built in stereo speakers, 100 different studio sampled instrument sounds, 100 accompanying rhythms, programmable One Finger Ad Lib feature, and lots lots more.

SOFTWARE-

Steinberg FunLAB software is a 5 track sequencer (allowing overdubbing and multitrack recording) with music notation display, song lyric display, jukebox feature, optional 'quantize' or error correct and three demonstration songs.

MIDI INTERFACE-

Compact MIDI interface which fits directly into your Amiga serial port.

MIDI CABLES -

Two MIDI cables for connecting the KAWAI keyboard to the MIDI interface.

AVAILABLE FROM:

Computermart Pty Ltd, WA (09) 328 9799

Computer Discounts, NSW (02) 281 7411

Hard Disk Cafe, NSW (02) 979 5833

Chanticleer Computer Centre, NSW (067) 72 8888

Casino Computers, NSW (066) 62 5220

Stephens Music Centre, NSW (047) 51 6196

Master Systems, Vic (03) 720 6722

Gray's Music, NSW (065) 72 1611

DEALER ENQUIRIES WELCOME

Contact:

KAWAI AUSTRALIA PTY LTD,

PO BOX 189,

WATERLOO NSW 2017

PH (02) 663 0571

FAX (02) 662 4726



KAWAI

Sounds great!



Please send me more information on the Kawai FunLAB Music System

Name:

Address:

I own a: Phone:

black and white. Images may be resized at will without loss of definition for magazine quality output. Deeply detailed art features professional quality not found in simple silhouette cutout clipart.

Unusual images unique to the marketplace guarantee the personal touch to your publications. 3D effects are used throughout for full visual impact. An optional Encapsulated PostScript format also available. From Computermate Products (02) 457 8388 RRP \$49.95.

Gold Disk Type

A new selection of high quality AGFA Compugraphic outline fonts are available. This versatile collection of fonts can be used at any point size, presenting new creative opportunities for Amiga artists, designers, video producers and desktop publishers. You can use them as Bitmap Fonts in any Amiga program. You can now create Amiga fonts at virtually any point size. These can be placed in any Amiga product supporting Amiga fonts - paint, animation, video titling, presentation or desktop publishing. Because you can create bitmap fonts at arbitrary point sizes,

you won't suffer the jaggies which occur from scaling regular Amiga fonts. With *Gold Disk Type*, you can dramatically improve screen fonts in any Amiga application.

The fonts boast high resolution dot matrix, plus Postscript compatibility. They may also be used in *Professional Page* version 1.3 or higher and *Professional Draw*. And, because they are outline fonts, they will output to the highest resolution of your printer: 9 or 24 pin dot matrix, colour inkjets, LaserJets, Deskjets or any PostScript device including high resolution imagesetters. *Gold Disk Type* is distributed by Dataflow Products on (02) 331 6153, RRP \$79.95.

Gold Disk Office

With the release of a number of new Gold Disk products not too far away, it looks like the existing range can look forward to new life as part of *Gold Disk Office* - a bundled, semi-integrated package combining desktop publishing, wordprocessing, spreadsheet and flat-file database. The package takes some advantage of ARexx and compatible data formats to allow reasonable levels of integration.

For example, you can add

notes to cells in *Calc* using *Write*, incorporate graphics from *Graph* within documents in *Page*, merge customer lists in *File* with letters created in *Write*. From the preliminary manual we saw, it appears these renamed programs are in fact *Transcript*, *PageSetter II* (now with Postscript output), *The Advantage* and a graphics program called *Chart*. No doubt additional features have been added to these programs to keep them competitive. Features according to the press releases are:

Office Write - high performance, lightning fast word processor featuring fast and smooth text editing, easy to use text operations; 90,000 word spell checking with "guess spelling" technology; auto index and mail merge capabilities; and low memory usage for efficient multitasking. *Office Write* may also be called directly from within *Office Calc* or *Office Page*.

Office Calc - complete business spreadsheet featuring intelligent recalculation for increased speeds; spreadsheet sizes of 32,000 rows by 32,000 columns; comprehensive ARexx support for sophisticated spreadsheet programming; 18 digit internal precision; over 100 statistical, financial, and trigonometric functions; multiple spreadsheets and views; and on-line support to *Office Write* for adding notes to any cell.

Office Page - Integrate text and graphics to create stunning handouts, flyers, brochures, ads, newsletters and more. Features easy to use interface, full typographical control over typeface, point size, style and line spacing, AGFA Compugraphic outline fonts for high resolution output on any printer - from dot matrix to laser, full PostScript support, a complete set of page layout tools - ruler, grid, snap-to, column, and margins; compatibility with IFF graphics, *Professional Draw* clips, and most Amiga word processors; and on-line support for *Office Write* for extensive text editing.

Office File - powerful, easy

to use, flat file database with ultra fast sorting and indexing; up to 32,767 records per file; up to 256 fields per record and 254 characters per field; unlimited user defined indices, and a full featured report and form generator.

Office Graph - a powerful business graphics package with high resolution, multi-colour, two and three dimensional charts and graphs and compatibility with *Office Calc* spreadsheets. Graphs can be saved as standard IFF format pictures or structured clips for importing into *Office Page*.

Distributed by Dataflow, (02) 331 6153, RRP \$399.95

Still Video Player

The just released Canon RV-321 still video player is the latest addition to the rapidly expanding range of still video technology, and is an ideal resource for conferences, presentations and desktop publishing. (For an updated review of the Canon Still Video Camera see the October/November issue of *Professional Amiga User*).

Equipped with a special interface capability, the still video player can be connected to a Canon Interface Adaptor (IA-V32) and then to a personal computer via an RS-232C interface. The personal computer can then send signals to the player to rapidly control which still video images are displayed. For conferences and presentations, one or more still video players can provide quality high resolution images quickly and efficiently either on to a large screen or to video monitors.

The Canon RV-321 features high quality image playback, horizontal video resolution of 500 lines or more, an S-video terminal, instant image erase capability, original mode and frame recognition, and automatic repeat playback (interval playback). Canon Australia, (02) 805 2337.

C.A.P.E. 68k Assembler

INOVAtronic has released the new 2.5 version of the

COMPUTER PRODUCTS

New KDV anti-virus program \$25.

External Slimline disk drives, with switch, 12mths warranty, for Amiga \$199.

Memory Boards in stock from \$160.

Starcursor joysticks \$54.00

All Pacronics and ECP products available. New Abacus Amiga manuals in stock.

Quality Computer and printer accessories.

Latest Amiga Magazines, Australian Commodore and Amiga Review, other overseas publications and software available.

Bi-monthly Amiga workshops. Next meetings on Sunday 2/12/90. Ring for details.

Mail and Phone orders welcome

WHITE'S COMPUTERS

"Service is our motto"

(02) 634 6636

37 Daphne Ave. Castle Hill 2154.
Bankcard/Mastercard/Visa Welcome

C.A.P.E. 68k assembler for the Amiga. This release adds several significant improvements to CAPE's already impressive feature list.

New in CAPE 2.5 are three external modules, designed for increasing efficiency, in both development time and source code. HLink, CAPE's new assembler-specific linker, is small, simple to use, and FAST. PMD (Program Module Dismemberer) disassembles code and data from object modules. And, finally, HProf is CAPE's new profiler, for pinpointing relatively inefficient sections of code in a program. HProf, combined with CAPE's outstanding optimization capabilities, makes it easier than ever to write outstandingly efficient assembler code.

The primary improvement to the assembler itself is a major increase in assembly speed: 70,000 lines per minute, with bursts up to 100,000 lines per

minute. Also, CAPE's documentation has been greatly enhanced to include basic assembler tutorials, a complete 68000 directive list, and other reference material.

"When you consider the quality of this extended environment and the code it produces, and the INOVAtronics commitment to peerless technical support, it's not surprising that CAPE is the assembler of choice for the Amiga development community," said president Martin Murray.

24-bit colour from local developer

Colourburst is a new totally transparent module that plugs into the RGB Video port of any Amiga. It has 772k on board, and using a custom gate array can display up to 16.8 million colours simultaneously without relying on HAM techniques. You may display

as many colours on the screen as there are pixels, and (unlike HAM) each pixel is independently definable.

Colourburst also allows you to digitally genlock on a pixel by pixel basis, a normal Amiga screen over a high resolution, Amiga generated multi-colour backdrop. Colourburst has a special Imagefreezer that lets you create or import a 16 million colour image and dump it to Colourburst, freeing up your Chip RAM to generate high speed blits for spectacular animation. This effectively provides you with a third hardware playfield, complete with transparent colour that, after it is formed, uses very little Chip RAM.

Colourburst has a variety of screen modes, including high and low resolution, interlaced or non-interlaced, and 16,256,4096 or 16.8 million simultaneous colours. Colourburst also supports the 256 col-

our mode used on the less expensive Colourtease. These modes can be changed dynamically on a line-by-line basis.

Output can be saved to video, and may also be genlocked. Because the graphics data originates in the Amiga's Chip RAM, it can be manipulated using the Copper and Blitter. Colourburst will be supplied with software to display *Sculpt* and *Digiview* images in full 24 bit colour. The developers are contacting suppliers of paint programs to have them make modifications to support Colourburst. A version of Blitz Basic will also be released to support the fantastic colour modes now available to Amiga owners. Some very colourful games will be released using this technology.

Colourtease is the budget version of Colourburst. In its normal mode it can display 256 colours on screen at once. The image can be manipulated

We're Guaranteed CHEAPER at Quadrant Computers, Perth

AMIGA ACCESSORIES

4Way Joystick Adsp	\$22
ACTION REPLAY CART	\$175
Aglier Mouse	\$58
AMAS Adv Midi & Sampler	\$268
AMAX inc Crips	\$515
AMAX V2.0 Software	\$358
AUDIO ENGINEER +	\$388
DIGI-VIEW GOLD V4.0	\$278
Dr. T's Model A Midi	\$135
EASYL A500 S750 A2000	\$850
FRAMEGRABBER	\$1200
HIT-EX Monitor Filters	\$38
Hitchi B&W Camera	\$635
GENIUS MOUSE	\$48

GVP PRODUCTS

SERIES II HARD DRIVES A2000	Call
ACCELERATOR CARDS A2000	Call
KAWAI Funiaio Music Sys	\$950
KCS POWER PC BOARD	\$688
MARCUS TRACKERBALL	\$148
Microswitch Kits	\$17
MKGRAPH Hand Scanner	Call
MNIGEN	\$478
MODEMS all types from	\$299
MOUSE MASTER now only	\$55
PHILIPS Series II Mon	\$485
Radical MIDI	\$75
SHARP Laser Printers	Cheap
Sound Express	\$110
SUPER AMI CARD II	\$138
VIDI AMIGA	\$338
3.5" Ext D/D & switch	\$170
501 Mem inc switch/ck	\$125
4Mb Baseboard 1Mb Pop	\$350
4Mb Baseboard 2Mb Pop	\$475
4Mb Baseboard 3Mb Pop	\$655
4Mb Baseboard 4Mb Pop	\$735
1.8 A500 INT MEM EXP	\$430
2Mb Minimega 1000/500	\$488
8-UP 8Mb A2000 2Mb Pop	\$578

AMIGA SOFTWARE

3-D TEXT ANIMATOR	\$74
3-D PROFESSIONAL	\$488
AMI DDRIIVE ALIGN SYS	\$55
AMIGA VISION	\$188
AMOS The Creator	\$110
AUDIO ENGINEER	\$168
BABY 100,000 SPELLER	\$45
BAD DISK OPTIMISER	\$58
BARS AND PIPES	\$378
BROADCAST TITLER II	\$378
CAN DO PRO PACK	\$58
CREDIT TEXT SCROLLER	\$55
DELUXE MUSIC CONST	\$97
DELUXE PAINT II	\$97
DELUXE PAINT III	\$97
DELUXE PHOTOLAB	\$97
DELUXE VIDEO III	\$97
DISKMASTER V1.4	\$55
DOO 2 DOS	\$58
DR T'S MUSIC SOFT	CALL
EASYLEDGERS Accountings	\$375
EXCELLENCE V2.0	\$278
GOLD DISK OFFICE	\$375
MAGINE	\$415
KAT'S FARM	\$55
MAX PLAN PLUS	\$215
McGEE	\$55
MUSIC X JUNIOR	\$185
PAGESTREAM V2.0	\$375
PARAGON BBS V2.07	\$375
PEN PAL	\$185
PERSONAL Finance Man	\$55
PRINT MASTER PLUS	\$55
PROFESSIONAL Draw II	\$258
PROFESSIONAL Page 1.3	\$
PROWRITE V3.0	\$178
QUARTERBACK Hd Us!	\$78
QUARTERBACK TOOLS	\$88
QUARTET	\$88
SAXON PUBLISHER	\$55
SHOWMAKER	\$378
SUPERBASE PRO V3.0	\$275
SUPER TRACKER AMI	\$110
TEXT ED PLUS	\$110
WORKS PLATINUM	\$185
YOUR FAMILY TREE V2.0	\$110

AMIGA PUBLIC DOMAIN

FRED FISH TO 370
NZ AMIGA CCC AMICUS
T-BAG FAUG AMIGAN
\$1.85 EACH INCLUDING DISK

1-10 DISKS \$2.00 P&P
10-20 DISKS \$2.50 P&P
20-40 DISKS \$5.00 P&P
40+ PLEASE CALL

NO ONE CAN BEAT OUR PRICES!!!!

AMIGA GAMES

ADV DUNGEON & DRAGON	\$
A-10 TANK KILLER	\$65
APPRENTICE	\$45
BACK TO THE FUTURE II	\$55
CHRONO QUEST II	\$50
CORPORATION	\$55
DAYS OF THUNDER	\$55
DRAGON STRIKE	\$64
DUCK TALES	\$65
FLOOD	\$55
FIRE & BRIMSTONE	\$55
F-19 STEALTH FIGHTER	\$85
IMPERIUM	\$48
MICROLEAGUE WRESTLING	\$55
MIGHT & MAGIC II	\$
NEW YORK WARRIORS	\$45
PRINCE OF PERSIA	\$55
RED STORM RISING	\$55
SIMCITY	\$65
SHADOW OF THE BEAST	\$75
SPY WHO LOVED ME (007)	\$45
SUBBUTO	\$55
TANK PLATOON	\$85
WINGS	\$74

AUSTRALIA WIDE AIR FREIGHT

3KG FOR \$8.00
CALL FOR APOST SURFACE RATES

COMMODORE 64/128

ANIMATION STATION	\$118
APROTEK CART EXPANDER	\$55
APROTEK MOEEM ADAPTOR	\$37
APROTEK USER PORT EXT	\$23
AZIMUTH DATA ALIGN	\$27
FREEZE MACHINE	\$60
GEOPRINT CABLE	\$65
INKWELL LIGHTPEN	\$110
POWER CARTRIDGE	\$60
SUIMLINE CONIV CASING	\$15
SUPER SHAPESHOT V5.0	\$74
TURBO LOAD CART	\$38
VSI BM TO 64 ADAPTOR	\$75
GEOS V2.0 C64 \$55 128	\$85
GEOCALC 128	\$45
GEOCALC 64/128	\$37
GEODEX 64/128	\$37
GEOPLE 64 \$37 128	\$45
GEOPROGRAMMER 64/128	\$37
GEOPUBLISHER 64/128	\$47
GEOS DESK PACK 64/128	\$47
GEOS FONT PACK	\$37
GEOS INTERNAL FONT PK	\$37
AWARD MAKER PLUS	\$37
BILLBOARD MAKER	\$38
BLAZING PADDOLES	\$49
FLEET SYSTEM II	\$55
FLEXI DRAW	\$55
PRINTER MASTER +	\$55
SUPERBASE 64 OR 128	\$55
SUPERSCRIPT 64 OR 128	\$55
STAR CURSOR JOYSTICKS	\$48
KEYBOARD SKINS ONLY	\$38
COMPUTER COVERS	\$15
COPY HOLDERS FROM	\$25
QUADRANT BRAND DISKS	\$13
LASER PRINTING \$1 PER PAGE	

CATALOGUE OFFER

FREE 100 PAGE PRODUCT CATALOGUE
SEND \$1.00 FOR POSTAGE CHARGES
OR A C5 POSTAGE PRE PAID ENVELOPE

PLEASE STATE IF YOU OWN A C64/128 OR AMIGA

PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Quadrant



COMPUTERS

26 Rochester Way Dianella
P.O. Box 380 Morley WA 6062
Discovery 069005050
Pager (09) 483 3195
Facsimile (09) 375 1113
Telephone (09) 375 1933

TRADING HOURS WEST COAST

8.00am-6.00pm Mon-Friday
8.00am-9.00pm Thursday
8.00am-5.00pm Saturday
TRADING HOURS EAST COAST
11.00am-9.00pm Mon-Fri
11.00am-12Midnight Thursday
11.00am-8pm Saturday



MAIL ORDER WELCOME

by the custom chips, saved to video, and overlaid with a genlock. Each colour can be chosen from the palette of 16.8 million colours, however it lacks the storage capabilities of Colourburst, and does not support Imagefreeze.

It does have a Supertease mode - you can display 16.8 million colours, just like Colourburst. However, that's as far as it goes; you cannot save to video or Imagefreeze, and the image flickers. *Digiview* images look quite spectacular, but there are limitations.

Some features of Colourburst include the ability to change video modes on any scan line with no limitations. This lets you freely mix Colourburst with Amiga video, or have (for example) the top third of the screen showing 16.8 million colours, the next third showing 256 colours, and the bottom third pure Amiga graphics. Also, Imagefreeze any picture into Colourburst

memory and overlay Amiga graphics in front or behind the image. Fully compatible with PAL, NTSC, genlocks and all external video accessories.

Amiga 3000 and Workbench 2.0 compatible. Expected Australian shipping date is late November in time for Christmas with an expected price of around U.S. \$600.

For information contact M.A.S.T. on (02) 281 7411. Dealer enquiries welcome. M.A.S.T.'s forthcoming digitiser and framegrabber/genlock will support the Colourburst.

Pro Video Post

Shereff Systems Incorporated have released its newest character generator *Pro Video Post* in a PAL version. The PAL version of *Pro Video Post* maintains the high standards and power of its NTSC counterpart by offering two generations of enhancements over *Pro Video Plus - PAL*.

Designed with post production in mind, *Pro Video Post - PAL* adds a screen size of 720 horizontal pixels by 576 can lines, real time digital video effects (DVE's), full screen picture manipulation tools, high resolution anti-aliased fonts, voice prompts, audio cues and Workbench compatibility.

Pro Video Post - PAL's on-line features include 16 resident fonts with English, German and Swedish character sets. Seven new on-line transitions, two or four colour font patterns, character by character style, size and a choice of 16 colours per page selectable from 4096. Drop and cast shadows plus independent outline, 100 pages in memory for immediate access (up to 2600 pages with expanded memory). Design tile, wallpaper or mirror backgrounds or import graphics from paint or digitising options.

Pro Video Post - PAL begins shipping September 1990. It requires 1Mb of Chip RAM and two MB of fast RAM. Accelerator card is recommended.

PAL Broadcast Titler II

Broadcast quality video character generator for the Amiga. Breaks the Amiga resolution barrier. Four level anti aliasing eliminates jaggies. Includes 16 anti-aliased fonts, 15-100 scan lines, high multiple styles, sizes and colours on a line. Adjustable border, cast and shadow in 8 directions.

Dazzling colours - 4,096 colour palette up to 320 colours per page RGB and HSV colour sliders for easy selection, displays IFF or built-in background patterns, automatic patterned text fill with IFF brushes, colour effects include flash, fade and colour cycling.

Super smooth effects - page effects include roll, crawl, corner, push, pull, erase, wipes, flip, tumble, date/clock and many more. Or create your own effects using line-by-line Transitions playback. Modes include loop, random, access and GPI control. Installs easily on Hard Disk.

Super-Card Ami II

Super-Card Ami II is a combination hardware/software backup system. It allows you to make backup copies of any 3.5" floppy diskette. It consists of a small unit that plugs between your external floppy drive and your Amiga (any model - another version fits between two internal drives on an A2000), and a disk. The disk contains documentation and the copier itself.

Super-Card Ami "steals" the signal from the internal drive (df0:) and converts it into the necessary signal for writing identical data on the Destination disk (df1: or df2:). This process is called "DupliFlux" (Patent Pending), and gives you an exact copy of your original disk. Other products either change the clock rate (externally, via the VIDEO port), or just "force feed" the read signal into the write line with NO conversion at all. Using this method, a lot of data can be shifted and lost, causing erroneous results.

The software has a variety of options, including verify. It will copy using a number of modes, including DOS, INDEX, SPLICE or AUTO. DOS is very fast, and will copy standard Dos disks, including many older protected titles, as it switches to AUTO if it encounters an abnormal format track. INDEX mode will copy all software that uses the Index hole to mark the start/end of the tracks, while SPLICE uses intelligent routines to try and locate the start and end of tracks for non-indexed disks. AUTO is the default, and will automatically pick the most suitable copying mode.

Super-Card Ami II will copy all 3.5" disks, including Mac, IBM, Atari ST and MIDI keyboard disks, as well as Amiga software. It will even copy 5.25" disks for Apple, Atari, Commodore 64/128 and IBM (this requires two Amiga 1020 5.25" drives.) It has a verify option, has a transparency switch for when the unit is not in use and is available for Amiga, in NTSC or PAL. From M.A.S.T., RRP \$169.00.



Shop 9 Akuna Lane
Mona Vale NSW 2103

Phone: (02) 979 5833
PO Box 879

AMIGA 500 - AMIGA 2000 COMMODORE COLT - PC 10 SOFTWARE - HARDWARE COMPUTER ACCESSORIES

AMIGA VIDEO TUTORIAL FOR BEGINNERS
FEEL AT HOME WITH YOUR NEW AMIGA

COST \$29.95

HINTS & TIPS

LEARN HOW TO BACK-UP
COPY - FORMAT DISKS - SAVE - LOAD

MAIL ORDER FORM

BANKCARD/MASTERCARD/CHEQUE/POSTALORDER

NAME:

ADDRESS:

PHONE: PC:

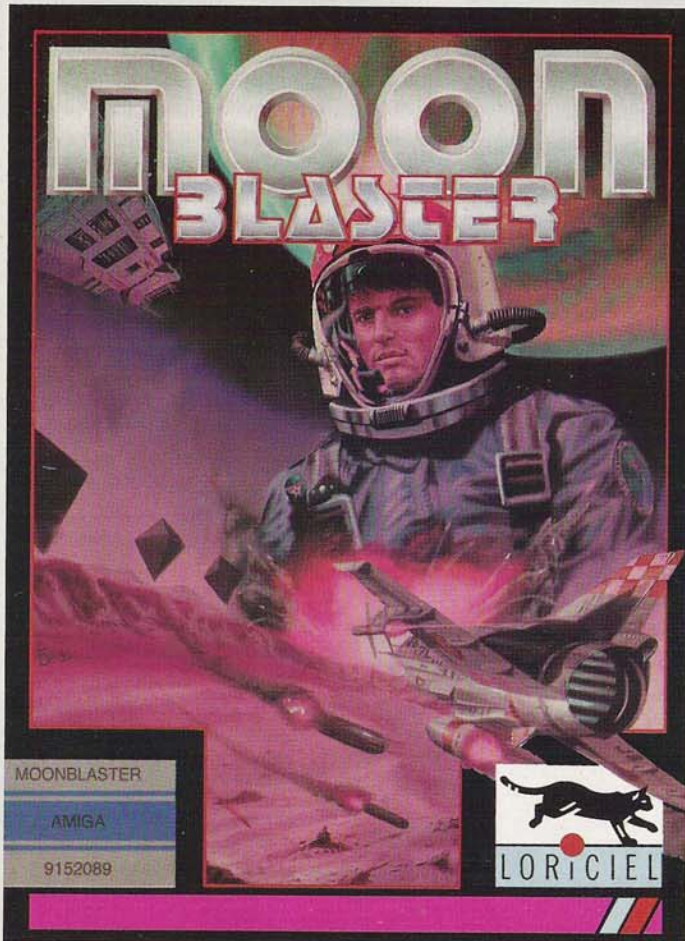
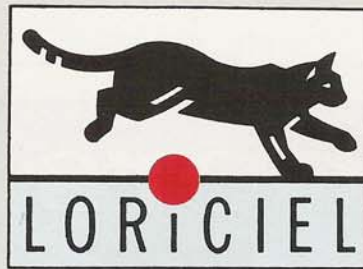
PAY BY CHEQUE: B/C: M/C:

P/ORDER:

CARD NO:

EXPIRY DATE:

SIGNATURE: DATE:



Moonblaster will dazzle you with its perfection. It has all the necessary elements for an outstanding arcade game: FULLVISION is a completely new method designed by LORICIEL, 3D animations bustling action and superb graphics...
DISCOVER IT NOW.
 Available on Amiga, ST, PC.

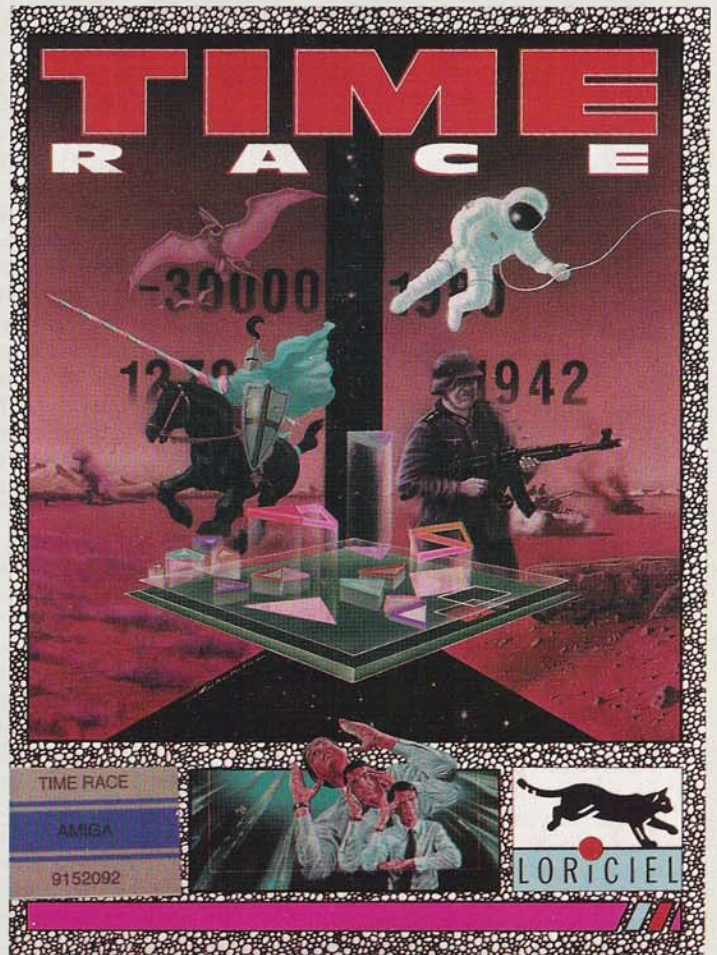
Proudly Distributed By



Mindscape International
 5-6 Gladstone Rd Castle Hill
 NSW 2154
 Phone: (02) 899 2277
 Fax: (02) 899 2348

Time Race is a fantastic puzzle game which makes you travel through history from prehistoric times to the fall of the Berlin wall.

This game is composed of 2 sets of 15 historical periods. There is a specific graphic and musical environment for each period of history. The goal is simple: you have to fill an area by assembling small colored triangular pieces in order to make it disappear square by square. Get ready for a game so addictive you will not be able to put it down!



Available on Amiga, ST, PC.

**Coming Soon: Magician
 Gem Stone Legend
 Outboard**

Beginners I start here



by Andrew Leniart

The Amiga is a complex and powerful machine which is quickly closing the gap between the home computer and a business machine. But with its ever increasing power and continued development, it is also becoming increasingly difficult for a beginner to come to grips with its complexities.

During the course of this article, we will look at various aspects of the Amiga and its DOS operating system and try to clear up some of the more common problems that a newcomer to the machine might have.

As soon as you tire of using the Amiga's workbench setup and decide to delve further into what the Amiga can do, you will find yourself turning to the Amiga's CLI (or SHELL in 1.3). The Amiga's Command Line Interface gives you access to all of the files and commands which you simply can't see or take advantage of when working in Workbench. You need a way of manipulating those files and commands to take advantage of setting up the Amiga to do what you want it to do, so Commodore supplied everyone with a simple text editor which lives in the "C" directory of your Workbench disk. Its name is Ed and you call him from the Cli simply by typing his name. Alternatively "Ed Any_File" will start Ed with the text file you wish to edit already loaded.

Using Ed, the editor

Probably the most common use for Ed would be rearranging the startup sequence of your boot disk. Creating various batch files is another common use. But a lot of people get put off (quite rightly) from using Ed because of its many commands, all of which must be accessed through various combinations of keyboard strokes. The mouse is not ac-

tive when working with Ed, so there are no pull down menus with which to select commands. Here is a rather obvious, but not so commonly used method of jolting one's memory when working with Ed; or for that matter, any text editor which has keyboard input for commands.

Ed uses two types of commands, so you first must decide which type of command works better for you. Briefly, the two types are "Direct Commands" and "Command Mode Commands". Direct commands execute immediately the appropriate key combination is pressed while Command Mode commands consist of pressing the Escape key first and then the key which corresponds to the command you want executed followed by the return key. You can tell when you are in Command Mode by an asterisk which appears in the lower left corner of the editor's screen.

Once you've decided which style you're going to use, get hold of a couple of plain ruled stock cards available at just about any newsagency. On one of these cards, jot down the key sequences which you will need to execute the most commonly used commands when working with the editor. You can find all of these in the back of the users manual (for want of a more suitable and printable term for it) which you should have got with your Amiga. Having done this, fold the card in half; or if you've used the whole card, stick one to the back of it with a bit of tape on top so that it can free stand. Keep this reference card in a handy and easily accessible place so that when you use Ed, all you need do is sit it on top or beside your computer where it will serve to jolt your memory at a glance. Simple, but effective!

Other options to Ed

As I said before, Ed is not the best choice one could make for a text editor. There are many excellent editors available for the Amiga which will cost you virtually nothing. I am of course talking about the Public Domain.

Prime Artifax have a theme disk which I put together devoted to text editors and of the many available on it, one goes by the name of Qed. Qed is a shareware (try before you buy) text editor which was programmed by a chap named Darren M. Greenwald in America who is continually updating and improving the editor to suit requests from registered users. It's a totally different and considerably more powerful beast compared to Ed and is far more user friendly. Nearly all of its features are accessible via the mouse and menu method which is far more easier to use. Keyboard equivalents can also be used for those that prefer to work this way and it has the capability to take advantage of AREXX macro's, which serves to make it a totally user configurable editor. Note that you would need to become a registered user to take advantage of this capability.

I can highly recommend you try this editor as I am a heavy user of it myself. I use Qed for all my text editing as well as for most of my word processing needs. As a matter of fact, this article along with all of my others was produced using Qed. Briefly, some of Qed's capabilities include:

- an extremely fast search and replace function
- automatic back up of files
- overstrike and wordwrap mode
- text formatting
- hard and soft tabs
- block and document editing
- printing capabilities and many other features too numerous to mention here.

Probably the best feature of Qed in my opinion is its ease of use and excellent documentation written by the author. Being able to use the mouse to position the cursor and scroll through a document is a great boon after you've been struggling with something like Ed, so do yourself a favour and check it out. I've seen many come and go and tried the best percentage of them and haven't looked back yet. One problem with using text editors such as Ed or Qed is that when they save files, they don't supply an icon for the file. You can view any text file from the Cli simply by TYPEing it. Type My_Text will scroll the contents of

the My_Text file in the Cli window. The scrolling can be paused by pressing any key and resumed with the backspace key. Another technique is just to hold the right mouse button to pause the scrolling. But what if you want to be able to read the file from workbench?

Viewing text files from Workbench

This is not as difficult as it might seem. If the editor you use to create files does not supply an icon for workbench, simply supply one yourself. While it is possible to make an appropriate icon with a tool like Icon Ed (also on your Workbench), it is far easier to simply pinch one from another file which already has one. Everybody who has an unmodified Workbench disk will also have a copy of Notepad. This is a type of joke which Commodore decided to include on your system disk and call a word processor. To be fair, it is very simple to use and probably a fair introduction to word processing for the utter beginner, albeit lacking somewhat in documentation. When Notepad saves a file, it supplies the file with a Project icon. This is just the thing you need to view your own creations from Workbench.

Notepad is a type of joke which Commodore decided to include on the system disk and call a word processor

Here's how to go about it:

Let's say you have a file on your Workbench disk created with Notepad called My_File. If you do a "Dir" of the disk in Cli, you will notice that there is also an entry named "My_File.info". This .info file is the actual icon which you see on WorkBench. You could simply RE-NAME the .info file to that of the file you want to use, but that would effectively leave you without an icon for the My_File file! (I'm sure that there's a better way to word that, but anyway...) To avoid this problem, go through the following steps in a Cli, assuming the file you want to create an icon for is called "Other-File":
Copy My_File.info to Ram:Cd Ram:
Rename My_File.info as Other-File.info
Copy Other-File.info to df0:

And that's all there is to it! Next time

you click open your disk on Workbench, you will notice another icon named Other-File in it. However, because this icon was a Notepad created icon; when you double click it, the Amiga will begin to load Notepad and display your file in it. In order to use a text viewing utility like "Most" or "Less" to view Other-File, you must change the icon's default value appropriately. To do this, click once on the Other-File icon and select Info from the Workbench menu bar. A screen will appear which gives you various information about the icon you have selected. Click in the box named "Default Tool" and press the Amiga key and X simultaneously. The contents of the box will disappear. Now type in :C/less and click on the save gadget in the bottom left corner. Now the icon will default to the public domain "Less" text viewer in the disks c directory. (Less is available on any Fred Fish disk in the public domain libraries).

You can use any text viewer you choose simply by changing the icon's default value appropriately. Just make sure you have a copy of the viewer you wish to use on the disk, otherwise you will get an error message.

Fixing slow working disks

Once you've done a fair bit of writing and saving to any given disk, you will notice that it seems to take more time to access anything from it. The reason this happens is that things tend to go a bit all over the place when saving to a disk. This will be particularly noticeable on Workbench with the appearance of icons.

There are a few programs around that speed up disk access, and one which comes to mind is B.A.D. This is a commercial program which does an excellent job by re-organizing any disk's contents for optimum performance in either Cli or Workbench. However there is a cheaper and reasonably effective way of getting a similar result simply by using the COPY command. First of all you will need to format a blank disk. Either choose "Initialize" from the Workbench menu or type in the Cli:

Format Drive DF1: Name anyname

Assuming the slow disk is in Df0: and the anyname disk is in df1: You now just *copy* the slow disk to the newly formatted disk using this procedure:

Copy Df0: to Df1: all

The Amiga will take a fair bit of time to complete the procedure if the disk is fairly full, but once it has done its job, you should find that the newly copied disk has much quicker disk access

speeds. Why? Because when you copy a whole disk's contents to another disk, the Amiga reorganizes the structure of the destination disk and puts files relating to each other nearer to each other.

A couple of tips for Workbench users

Most will know that if you click on a text icon from a word processor, hold down the shift key and double click the "More" icon in WB 1.3, then the file will be displayed by the More viewer. But did you know that you can also do the reverse? Let's say you have a document produced by Notepad and you wanted to work on it in your *KindWords* word processor. All you need do is click once on the Notepad icon, hold down the Shift key and double click the *KindWords* Word Processor icon. *KindWords* will then load with the document in question already loaded on screen.

Pointing a Preferred pointer

Pointers and Workbench go together like bread goes with butter. One often sees various creations on other disks and it is possible to have any type of pointer you may see without the need of spending ages trying to re-create it with the preferences program.

For example, if you see a pointer which particularly impresses you on a public domain disk or whatever, simply copy the System-Configuration file from that disk to the devs directory of the disk you wish to use that pointer with. You will first need to delete or rename the system-configuration file on your own disk. Once you have the other disk's configuration file on your own disk, re-boot and you will find your preferred pointer now exists on your own disk. However, as the System-Configuration file also contains details of screen colours, printer settings etc, you will still need to enter Preferences to reset all of these to your own personal liking. Still heaps simpler than having to draw a complicated pointer from scratch!

Anyway, that's about it from me for now. I hope you enjoyed what was written here and got some value out of it. Till the next time...

MS-DOS

meets the Amiga 500

Turbo KCS Power PC Board

by George Kimpton

have a 500 sitting on the table.

What to do? How do you get the best of both worlds? Recently, visiting John Fonhof of Fonhof Computers, I was introduced to the answer, the KCS Power PC Board (V1.32) which plugs into the memory expansion slot under the Amiga 500. Now quite frankly I usually avoid MS-DOS like the plague but, watching John kick up both the Amiga format then the MS-DOS so easily, I was impressed by the performance of the PC Board or Turbo XT as it is sometimes called. It is everything it is claimed to be.

In this day and age of miniaturisation we tend to take many things for granted. The KCS Power PC board is quite a package when you consider what it provides and then remember that the expansion slot it fits into was only intended to hold 500K of memory. It also lives up to the tag "Turbo", being tested at 3.3 times faster than an IBM XT.

What you get

The board uses an NEC V30 processor and contains a custom chip, a battery operated clock and 1Mb of RAM, half of which can be set up as a RAMdisk for Amiga use. The V30 chip is a 16 bit 8086 clone running at 7.14MHz. (Most XT Turbo clones now run at between 8 and 10 MHz). It all comes in a neat package containing the PC board, five 3.5 program disks, an MS-DOS Handbook, a MS-DOS shell handbook and an instruction manual for the installation and use of the board.

The disks include one for normal Amiga booting, two for MS-DOS installation, one for shell installation and the PC Work Disk. The Handbooks For MS-DOS and shell are official Microsoft publications and quite substantial. MS-

DOS version is 4.01.

The PC Board manual, though small (16 pages) is well written and easy to follow. It takes you step by step through the installation and setting up. Even someone like me who steers clear of MS-DOS found it very easy to convert the Amiga 500 to an MS-DOS PC/XT and have it up and running.

At that point I let John take over and demonstrate the running of some MS-DOS software like *Lotus 123*, *Word Perfect* and others. They all looked to be running well and tests with *Norton Integrator* indicated a speed of 3.3 times a normal XT.

Setting up

To get back to the setting up, when you first start-up with the Amiga disk you can make use of an installation program to set various preferences simply by holding down the left mouse button during start-up. This brings up a language menu, in case your English is not good, and then an option menu.

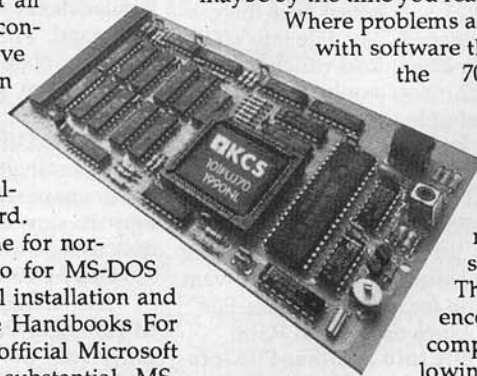
This option menu allows you to install a hardware clock or a 512K RAMdisk or both, remove the RAMdisk, set the PC Preferences or Quit. The Clock operates on both the Amiga and PC modes. The KCS power PC board contains 1 Megabyte of memory in addition to the normal 512K in the Amiga 500 thus allowing you to install a 512K RAMdisk. With the current version there is some conflict with the A590 Hard Disk and this RAMdisk in the PC mode but John assures me this is to be corrected very soon, maybe by the time you read this.

Where problems are encountered with software that doesn't like the 704K memory

available, switching is available to reduce the available

memory to the standard 640K.

The PC Preferences are very comprehensive, allowing for up to four



drives which can be either 3.5 or 5.25 and set in a variety of configurations. Be careful here with overloading of the Power Supply, an external supply may be needed if more than one external drive is required.

Provision is also made to set up Video, Sound, Printer, Mouse, RS232 Ports, Joysticks and the keyboard.

Some very specific adjustments are possible on the drives for those who know what they are doing like Step Times, Initialising times etc. but don't touch unless you know you are doing. All adjustments to these preferences are by the usual Amiga point and click.

In fact the setting up is pure Amiga friendliness, the tough part comes when you are up and running as MS-DOS as usual. These settings are then saved for future use as with normal Amiga operation. One very interesting point here is that the PC set-up can be changed on the fly with Hot Keys. Very useful in a tight spot.

Monochrome (MGA) 720 X 348 pixels and Colour (CGA) 640 X 200 or 320 X 200 pixels are supported. The MGA is Hercules compatible and allows three shades of grey. CGA supports 8 colours. Interlace mode is possible but not recommended unless you need it for video work. Character pixel height is adjustable at 8, 9 or 10 to correct for the propensity of some monitors to produce distorted text if size doesn't suit the screen density.

Printing

Three printer ports are supported (LPT1, LPT2 and LPT3). Buffer size will be adjustable up to 256 Kbytes in Version 2.0 of the software. The Mouse Systems mouse is currently supported with it being necessary to load a mouse driver (not supplied). Others will be supported later. A number of connection choices are available with two possible serial ports (COM1 and COM2) and the Amiga JOY1 and JOY2 are also available. The manufacturer claims that the maximum serial baud rate on the RS-232 output so far is 4800 in the PC mode for modem work.

Both sound volume and keyboard key response or delay times are adjustable by on screen sliders. A number of other facilities are adjustable such as Screen blanking, Colour/Black & White switching, Key clicks, Number of screen colours and colour adjustments.

You do not need MS-DOS disk drives, standard Amiga drives will do. While this is very convenient, many MS-DOS programs will be available on 5.25 disks and therefore you will still need a 5.25 drive which must be configured as Drive A.

While MS-DOS programs can be read in the PC format the Amiga mode will not recognise them. If you need your Amiga mode to read or write PC data to

or from files you will still need to use *CrossDos* or *Dos to Dos*. Both the Amiga and PC modes are totally independent. There is no multi-tasking in the PC mode, data must be saved to disk if you wish to bring it into the Amiga mode. There it can be transferred with *CrossDos* or *Dos to Dos* to the Amiga mode.

Because of the limitations put on operations by the way the Amiga is converted it is not possible to interface with special PC cards such as Scanners, Fax or special mouse cards. This is a small price to pay for what you are getting as just about everything else is possible.

While the KCS Power PC Board may have some limitations, to me it seems very good value, certainly doing what the lower priced PC clones may do and more. Add to this the access to your Amiga with all its capabilities for other work and the fact that the PC side runs 3.3 times faster than a standard XT and you have a potent little package.

Distributed by:
Fonhof Computers
 (02) 639 7718
 R.R.P. \$699.00
 and by:
HPD Pty Ltd
 (08) 349 8486

PCM COMPUTERS

VDrive70	70 Meg A500 Hard Disk Drive - ST506 28mS NEC mech. \$1095 64K RAM buffer /FFS. Formatted, installed, ready to run. Very fast, non-autoboot, external power. 12 months warranty.	AMIGA 500	A500 Computer system with 1 Mb RAM ChipRAM/FastRAM switchable. Full warranty	\$990
1.2/1.3	Mod to install Kickstart 1.2 and 1.3 in A500's/A2000's \$60	A500	Monitor stand all-steel	\$40
1Mb	Convert your A500 to access 1Mb chipRAM. REV.6. A500 \$30	EPSON	LQ-400 10" 24-pin 360 dpi hi-res 180cps printer	\$530
ChipRAM	Switchable 0.5M/1Mb REV.5. A500 \$110	EPSON	LQ-550 10" 24-pin 360 dpi hi-res 180cps printer with push tractor / paper park / semi auto-load	\$620
256x1 RAM	RAM chips 41256 - 256K x 1 150ns - min qty. 16 each \$2-20	DISKS	3.5" DSDD box of 10	\$11
GVP	PCM supplies the full range of GVP products including all hard drive systems, tape drives and accelerator boards.		5.25" DSDD pack of 10	\$5
RANGE		PD Disks	Public Domain Software - per copy (excl. disk) each over 500 disks to choose from.	\$2

VDrive 5.25 5.25" Ext. Floppy Drive \$240

70cm 12mm round shielded cable, DB23's, Pass-Thru, Drive disable and write protect switches. 12mths warranty.

PCM501 A500 0.5 Meg Expansion \$80

0.5 Meg expansion board to suit A500 expansion slot. Compatible with A501 but with no clock.

PCM501+ (with clock) \$90

2 / 28 Ashton Rise Doncaster East VIC 3109

34 Mac Dougall Road Golden Square VIC 3555

PO BOX 70 Noble Park North VIC 3174

FAX or Phone (03) 841 8889 018 322 920

Phone (054) 416 277

Phone (03) 701 0343 Fax 701 0077

An introduction to Synthesisers

by Daniel Rutter

Due to the lack of coverage in the Amiga media regarding the other end of Midi - the bit you connect to the end of the plug - we thought it was time to take a quick look at synthesisers in general, and help new entrants to the music scene safely bridge the cultural gulf.

This article is written in as close to plain English as I can manage in between psychedelic fugue states and bursts of jet pipe reheat volume rock, and it aims to give you enough knowledge of synthesisers to hold your own in a trendy conversation.

Synthesisers evolved out of the primitive electric organs that sprang up not long after the invention of the transistor. Before that, electric organs had valves in their amplifier circuits, cost a mint and were seldom seen.

The first real synthesisers were analogue machines. This meant they had continuous level sliders and dials to make whatever sound you wanted. Thus, you had no way of creating a sound, making another, and then going back to the first, precisely. The official method for "saving" sounds was to pencil lines on a small paper picture of all the sliders, write on the name of the sound, and go back to that when you wanted the sound again. This was a major pain in stage performances - even if you could remember all of the settings, it took more time to set it than the audience would applaud.

One example of these pre-Midi beasts that can still be found today is the Korg MS-20 (with patch cords to shunt oscillators to filters etc). Another example is the bewildering ARP 2600, built into its own vinyl covered suitcase. I'm talking OLD. It wasn't even necessary to connect the keyboard to make a noise.

Analogue synths spoke to each other via Control Voltages, very unreliable compared to MIDI. One of the last true analogue synths to appear was the Roland SH-101 (circa 1984).

Later on I'll get to what all the sliders actually did - for now I'll just rip on through the history of the keyboard.

These earlier synthesisers were not MIDI machines - which had not yet been invented. Instead they were linked by control voltages, where one patch cable carried a voltage representing pitch and a second the pulse that triggered each note.

The obvious problem here was that it took two cables for each note to be triggered, leading to tangles of patch cords.

Then came the Great Leap Forward - digital technology. With the rise of the PC, it occurred to the keyboard manufacturers that a microchip stuck inside a synth might not be a bad idea. You could save your new sounds in RAM and have a library of preset sounds in ROM which wouldn't take much memory as a set of numbers. More importantly, the manufacturers could save costs by dropping the multiple knobs and sliders for a few multiple purpose buttons.

With the new machines came MIDI, the Musical Instrument Digital Interface, which defines a common language for all synthesisers and computers. Which is where we came in.

As the workings of the synthesiser came to depend on system software there emerged the varieties of synthesis which currently compete in the music market. Most are variations on 'traditional' analogue synthesis - Linear Arithmetic, Crossfade Wavetable, Advanced Integrated and others are related variations. However Frequency Modulation is a unique system with a separate evolution, which can't really be properly covered here.

The Traditional Synthesiser

On the traditional analogue synthesiser, the sliders and buttons are arranged in a set order, mapping the creation of the sound from raw tone to the

final output.

First, there's two (usually) buttons for the waveform of the VCO or Voltage Controlled Oscillator. This can be a square wave, giving a bell tone, or sawtooth wave, giving a rasping sound. Some synthesisers also have buttons for sine and triangle waves. More recent synthesisers replace the VCO with the DCO or Digitally Controlled Oscillator. Besides patch memories, this was the first benefit that digital electronics brought to music synthesis. The previous oscillators went out of tune on a regular basis.

Here too is a control for the octave range of the waveform. It is measured in feet, and can be stepped between 4' and 32' on most machines. The higher the number, the deeper the tone, one octave for each doubling of the number. There is also a slider to add white noise, which controls the volume of "ssshhh" in the tone from none to pure noise.

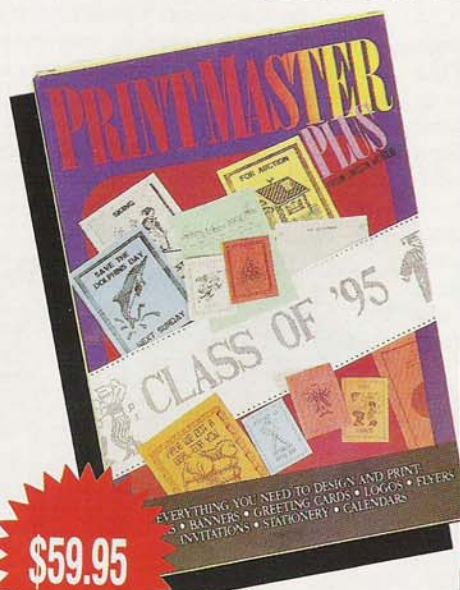
Next is the Voltage Controlled Filter, which usually provides controls for the Cutoff Frequency and Resonance of the sound. The VCF is a favorite of players of slow, spectacular chords. The cutoff controls the brilliance of the tone, changing it from a clear bright sound at high frequency to a dull booming sound at the bottom end of the scale. What it does to the waveform is round it off towards a sine wave, removing all the higher harmonics that brighten the sound. The resonance control increases the volume of the sound at the point where the cutoff takes effect - making it more 'nasal'. This allows the famous "resonance sweep", which gives the sort of strange, spacy "cheeeeeaaaooouuuuwww" sound beloved of cheap splatter movie makers.

After this comes the envelope controls which shape the volume of the sound, its pitch and the cutoff frequency. There are four controls for each envelope which are: **Attack** - how long it takes the sound to get to maximum volume after you hit the key. **Decay** - how much, if at all, it falls off in volume as you hold the key. **Sustain** - the level to which the volume falls and **Release** - how long the noise hangs around after you lift your finger.

Now we get to the LFO - Low Frequency Oscillator. This controls the tremolo and/or vibrato of the sound, modulating the volume, pitch and filter settings. There are two sliders, one for how fast the vibrato is and one for how far up and down it goes.

continued on p22

SENSATIONAL SOFTWARE



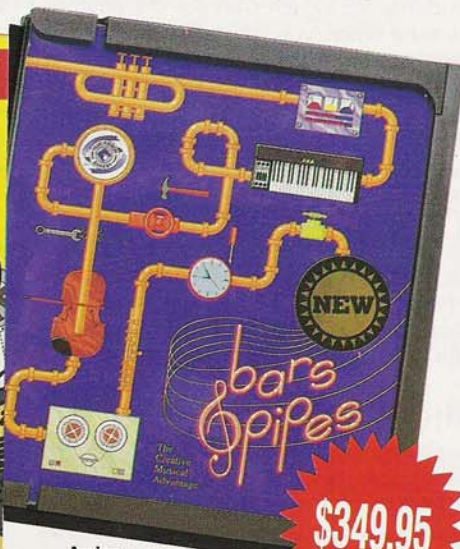
\$59.95

Amiga



\$29.95

Commodore 64



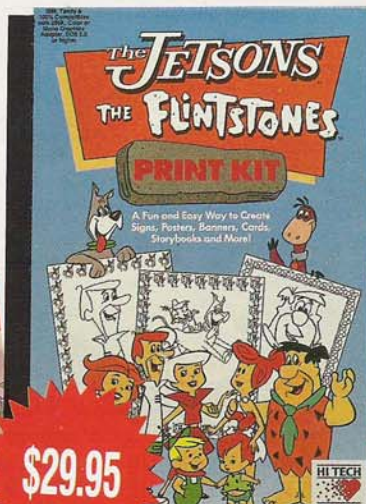
\$349.95

Amiga



\$69.95

Commodore 64



\$29.95

Commodore 64



\$69.95

Commodore 64

dataflow

Bringing you the Best!!

AVAILABLE FROM YOUR LOCAL DATAFLOW DEALER

Dataflow Computer Services Pty Ltd. 134 Barcom Avenue,
Rushcutters Bay 2011. Tel: (02) 331 6153 Fax: (02) 331 3665

On the left side of the keyboard is the bender lever, which changes the pitch of the tone when you move it right or left. Some bender levers can be pushed forward to kick in some extra tremolo - pricier synthesisers have full joysticks for pitch and tremolo control, cheaper ones wheels set vertically, with the edge sticking out.

There are also a few other controls, like transpose buttons to move the pitch up or down an octave and finer transpose buttons that do it in semitones, and hold buttons, which do the same as a sustain pedal but are much clumsier.

The Digital Synthesiser

Now, your digital synth has all the above, but it's controlled with buttons and a few sliders that can be assigned to multiple controls. Bigger digital synthesisers are also likely to have PCM waveforms, which stands for Pulse Code Modulation. These are complicated, but

short, sampled sounds that supplement the usual square and sawtooth waves. They range from digitised drums to special effects like explosions and telephones, right through to whole backing tracks that loop in a couple of seconds. PCM waveforms are a blessing to the lazy musician, and also help enormously in the creation of realistic sounds.

The reason is not complicated - when changed in pitch a simple waveform sounds fundamentally the same. This doesn't happen with real instruments. For example a piano's high notes are completely different in timbre and envelope characteristics to its lower register. A simple waveform might sound perfect on high C, but if you try to do the thump-baseline from the Peter Gunn theme

you sound like you're playing the stalactites in Jenolan Caves. So you use a PCM waveform digitised from a piano's high notes for the upper register, and tell the synth to cut the volume of that tone as the pitch drops, while raising the volume of another PCM wave that sounds like a piano bass. This is called multi-sampling.

One method of achieving this is Linear Arithmetic Synthesis, which sounds complicated but just means the synth can devote more than one oscillator at a time to each note. Which brings me to a big issue when talking about synthesisers - voices. The number of voices a synth has determines how many

So dials were brought back in on little machines like the Roland Synth Plus 10, and sliders on huge ravaging monsters like the Korg flagship machines. These gizmos work surprisingly well, and make life easier.

One gadget you'll often find on expensive synthesisers is a sequencer which al-



lows you to compose tunes and save them to RAM or, on even more expensive machines, disk. These vary widely in capabilities, but I still haven't found one that beats Doctor T's Keyboard Controlled Sequencer for the Amiga. Of course, you get fewer hookup hassles when the sequencer's part of the machine itself.

Last but definitely not least, are the keys themselves. These are usually thin plastic organ style objects, tough but unlovely. On pricier synthesisers they sense how hard you're hitting them, and from this data you can change the tone or, more usually, the volume. This is called velocity sensitivity. The keys can also be weighted, to make them feel like piano keys. This helps in delicate control of volume, but makes fast, hard playing very nasty after a while. Lightly weighted keys take a little getting used to for pianists, but most agree they make everything easier, provided you're not nuts on amazingly delicate classical stuff where the difference between *molto pianissimo* and *pianissimo* matters.

y notes it can play at once. In the case of a LA machine, the number of voices divided by the number of tones ("partials") in each note tells you how many notes you can play at once. My little Roland D-5 has 32 voices, but with a 'four partial' sound that hops down to 8, which is still adequate for most work.

Recently there has been a re-introduction of levers and dials following the manufacturers' realisation that buttons are a pain in the proverbial when it comes to a quick change from the bottom end of a scale to the top - moving one unit at a time takes a while.

Buying a Synthesiser

by Daniel Rutter

Synths come in all shapes, sizes and price brackets. Old (read antiquated) analogue synths can be had for a song (boom, boom) but the newer devices can run into the \$1000's. I'll run up the price brackets with a few examples in each for your delectation.

First, down the bottom, are the toys, with under size keyboards and one voice. The keyboard is usually around two and a half octaves, and if you think that isn't much, you're right. These are not worth a damn to any serious musician. Best used as paperweights or doorstops. Example: Realistic Concertmate 350 (\$60).

A little better are the 4-voice, 3-octave gizmos, with gimmicks like stereo speakers. Still in the "You bought a WHAT?" department. E.g. Concertmate 450, \$90.

For a bit more you can get a keyboard that samples - i.e. you can burp into the

of these creatures are not really synths, since you can't do much of an editing job on the tones. They do, however, all have automatic rhythm buttons for assorted twee bump-tishtish, BUMP-tishtish noises. At the top end, you get about four octaves and six voices on the keyboard, customised rhythms and lots of tones. There's still no MIDI hookup and if you want a velocity sensitive keyboard you can go whistle. E.g. Concertmate 660, \$280.

Between the grown-up synths and the risible idiot machines, you get a number of bare-bones machines from about \$400 to \$700, with modifiable tones but nothing much in the way of PCM wave forms or big, velocity sensitive keyboards. Manufacturers like Yamaha and Casio go a bundle on these infant-genius machines, but they don't pack a lot of punch compared to the better keyboards.

Now we jump into the real synths,

mike and play three octaves of burp, if such things give you a charge. Big deal. Still a gimmick - you can't save the sounds or manipulate them much. E.g. - Concertmate 500, \$150.

Here we hit the top end of the baby synths. All

and also hike the price a bit. About the cheapest real machine you can lay your hands on, with velocity sensitive keyboard, plenty of PCM sounds and a proper LCD display to tell you what you're doing is the Yamaha DS55. This little number is excellent value - I haven't played it much, but its manual sounds good, and it's got a lot of bells and whistles which generally are not a lot of use by themselves, but all together make it a damn good machine for the money (\$850).

Another price hike, and we hop up to about the best synth without a sequencer. The Roland D-5 is the synth I use, and it's good, if not fantastic, value at under \$1,300. It's got a five octave velocity sensitive keyboard, the standard for most synths, lots of useful PCM's, and it's multi-timbral, which makes it a beautiful synth to use with a sequencer. The Roland D-5 can behave like 8 synths and a drum machine, and with 32 one-partial voices to play with, which means an absolute flat minimum of eight tones at a time, the music you can make with it kicks very nicely.

And up, up, up screams the price again as we break the sequencer line. About the cheapest synth with a sequencer, disk drive, and trimmings, would be the old faithful, the Roland D-20, which is effectively a D-5 with bits on. The guts are much the same, but it's an older machine so it doesn't have patch effects, but which don't make a whole hell of a lot of

Desktop Utilities

CMF Software
An Australian product
Contact 1.1
\$60 RRP

Memory-resident pop-up contacts manager: phone dialling, address printing (including PostScript), clipboard support, custom sorting, selective batch printing & A-Rexx port.; Workbench 2.0 compatible.

Software Distributors - New Products

Consultron
CrossDOS 4.0
\$60 RRP

The MS-DOS & ST file system for the Amiga. Access disks directly from Amiga applications & utilities. Faster data handling in this new version.

ASDG
The Art
Department 1.0.2
\$150 RRP.

Fast 24-bit image processing; now includes Sculpt & Turbo loaders; Workbench 2.0 compatible. Other loader modules also here.

PO Box 3053 Manuka ACT 2603
Dealer enquiries welcome.

Message Line: 06 - 239 6658
Bulletin Board: 06 - 239 6659
Facsimile: 06 - 239 6619

Our BBS is online most hours/7 days. Use S7=40 S9=25 in modem setup string to ensure successful connect (up to 9600).

Roland's E-30 Synth: LA Synthesis, drum beats, six track sequencer, speakers, MIDI. State of the art but aimed at the domestic market.



difference. It sells for around \$2,000 and is reasonable value at the price, although starting to show its age a little. The price will drop, just as with computers, as newer models show up.

Now we come to the huge, hairy, man-eating ravening monster machines, for people with big bank balances or foolish bank managers. And in this category there's one big, solid, established name. Korg. The simplest Korg is the international top-selling M1, an impressive rounded creature that sets back its lucky owners \$3,150, and is worth every penny. The keyboard is a joy to play, the most responsive I've ever touched that costs less than \$20,000. And the sounds are digitised, perfectly. The only thing the M1 lacks is a disk drive - it can talk happily enough to memory cards, as can most synths over \$1,000.

Up another step, we enter the Korg T-series, which kicks off with the T3, which sells for a paltry \$5,500. Every T synth has 8 megabytes of ROM, with an optional 512K RAM for faster and bigger opera-

tion. These monsters are not to be taken lightly - they're the best you'll ever see in any numbers. The little T3 has a standard 5 octave keyboard, but it's the same one that's on the M1, and that just about says it all. The T2 (\$6,500, can you believe it?) has a bigger keyboard at a little over 6 octaves, and, oddly enough, the keyboard starts on an E and ends on a G (pianos start and end on A and most synths on C). Extra frills are minimal - it's the keyboard you're paying for, and it's lovely. The T1 (wait for it... \$7,500) has a seven octave keyboard, starting on A and ending on C (88 notes), and it's piano weighted. This makes it a bit of a workout to play, but I really can't say a bad word for it. That predatory smooth, black look, with little round transparent buttons and the back lit display glowing out at you like a winking demon... it makes you feel you're unworthy of the machine; everything you play it says "that the best you can do?". Still, I can stand an insult like that.

Now we blast into the stratosphere, of

price and capabilities, with the planet busting Fairlight (discontinued) and Synclavier, which are really computers with both sorts of keyboard, play and sound like dreams and cost like small houses or huge cars. You name it, they do it. If you can afford one of these, I don't know why you've got an Amiga and not a Mac II, or indeed a Cray 3.

One important thing to remember is that you don't need another synth if you've already got one - with MIDI, you can buy a module, which is essentially a synth with no keyboard that plugs into a sequencer or other synth. You can get modules for almost all real synths, and they work out a lot cheaper - for example, the M3R, the module version of the Korg M1, actually has more sounds, but sells for (only!) \$2000.

So there we have it, a brief rundown of some of the synths available. Obviously budget constraints dictate your choice, but the golden rule is: Try before you purchase, acquire, invest, attain



"ACCURACY"

Commodore and Amiga Review 24

GoldenIMAGE Optical Mouse Competition Winner

Congratulations to: **RAY HUGGETT, 95 BORROWDALE WAY
CRANEBROOK NSW 2749**

It was a hard decision to make, wading through the thousands of entries that came flooding in to the office of the overworked layout staff, but we found a winning entry. There were poems and other soulful dissertations on the myriad benefits of the optical mouse, multiple entries, even a reference to that most painful of computer related ailments, Rodent wrist.

**Thanks to Computa Magic (03) 326 0133
for supplying our prize.**

Maxwell's 24 HOUR MAIL ORDER

SOFTWARE GALORE

GUARANTEED SERVICE * SAME DAY DESPATCH *

SOFTWARE... FIRST WITH THE LATEST... NEW TITLES DAILY

1000's OF TITLES ☆ AMIGA ☆ IBM 5.25" AND 3.5" ☆ C 64 ☆ C 128

☆ C64 TOP HITS ☆

- SHADOW WARRIORS ✓ 35.95
CLOUD KINGDOM ✓ 36.95
SKATE WARS ✓ 38.95
PANZER BATTLES ✓ 39.95
QUEST MASTER ✓ 62.95

- CHAMBERS OF SHALIN 59.95
CHASE HQ 59.95
CHESSPLAYER 2150 79.95
CHRONO QUEST II 79.95

- NORTH & SOUTH 59.95
OVERRUN ✓ 49.95
OOZE ✓ 49.95
P 47 79.95

- FUN SCHOOL 2 UNDER 6 49.95
KIDS COLLECTION 59.95
KINDERPAMA 52.95
MASTERTYPE 54.95

- MATH BLASTER PLUS ✓ 62.95
MATCH IT 49.95
MATH-BLASTER PLUS 69.96
MEDAL MULTIPLICATION 64.95

- KARIA FONTS II 104.95
MASTERTRACKS PRO 549.00
MOVIE SETTER 136.95
MUSIC 399.00

- PAGE RENDER 199.00
PERFECT SOUND DIGIT A1000 199.00
PIXEL SCRIPT (POSTSCR DRV) 199.00

- PRO-VIDEO PLUS 499.00
PROFESSIONAL DRAW 375.00
SOL'PT-ANIMATE 4D 799.00

MOST AMIGA TITLES AVAILABLE IN C64 FORMAT

☆ PRICE MATCH! ☆

Any dealer's regular price advertised in this issue

AMIGA DATABASE

- DATA RETRIEVE 99.00
FREELANCE ✓ 49.95
MAILSHOT 99.95

AMIGA WORD PROC.

- ELECTRA SPELL CHECKER 49.95
EXCELLENCE V2 ✓ 299.00
KINDWORDS V2.0 99.95

AMIGA SPREADSHEET

- ADVANTAGE ✓ 299.00
ANALYSE I 139.95
HAL CALC 99.00

AMIGA GAMES

- ADIDAS TIE-BREAK TENNIS ✓ 59.95
AFTER THE WAR 54.95
AMIGA CHAMPIONS 59.95
ANARCHY ✓ 59.95
A.P.B. 49.95

- DATA PACK LEADERBOARD 49.95
DUNGEON MASTER ASSISTANT 49.95
DUNGEON MASTER EDITOR 49.95

- SPRAGL TH FIGHTER ✓ 59.95
SPACE QUEST I & II HINT DISK 34.95
SPACE QUEST III HINT DISK 34.95

- MAXIPLAN PLUS V1.9 ✓ TBA
MAXIPLAN III ✓ TBA
SUPERPLAN 199.00

AMIGA BUSINESS

- BEST 485.00
DESKTOP BUDGET 99.00
CRITICS CHOICE 199.00
ELECTRONIC CASH BOOK 199.00

AMIGA UTILITIES

- AMAX MAC EMULATOR ✓ CALL
AMAX II ✓ CALL
AMIGADOS 1.3 ENHANCER PK 30.00

AMIGA SPECIAL INTEREST

- BIBLE READER 99.95
CELEBRITY COOKBOOK 99.95
DISTANT SUNS EXPANSION DISK 49.95

☆ AMIGA HARDWARE ☆

- A3000 / 25 ✓ CALL
A2000 V2.2 ✓ CALL
A500 DELUXE PACK 1199.00

AMIGA GRAPHICS/MUSIC

- ANIMAGIC 179.00
ANIMATE 3D 229.00
AUDIO ENGINEER 179.00

AMIGA EDUCATION

- A B ZOO 29.95
ALGEBRA 79.95
ANIMAL KINGDOM 62.95

10 GREAT REASONS TO SHOP MAXWELL'S FROM HOME

- 1 TOLL FREE HOTLINE
We offer toll free ordering outside metropolitan Melbourne, 24 hours order line and a customer enquiries line.
2 RELIABLE SERVICE
All goods despatched within 24 hours when stock is available.

4 CUSTOMER PROTECTION

Credit cards are not charged until goods are despatched. All products carry manufacturer/distributor's guarantee.

5 BETTER BACKUP

Friendly advice and after sales support from experienced staff. Plus special offers and priority service for existing customers.

6 EASY PAYMENT

We accept Bankcard, Visa, Mastercard, Money Orders, Bank Drafts and cheques. Allow ten days for cheques.

9 UP-TO-DATE

At Maxwell's we take pride in keeping up-to-date with the latest hardware and software developments.

10 MAXWELL POLICY

Our main aim is to provide a fast efficient and worry-free mail order service Australia-wide.

ORDERS ONLY

008-334-634

ALL QUERIES

03-419-6811

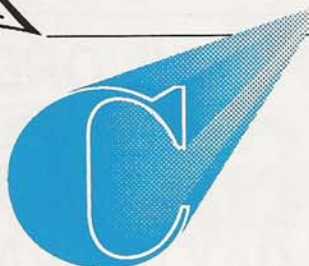


AFTER HOURS CALL 03-417-1480 FAX 03-419-0160
Or write to: FREEPOST 2, MAXWELL EXPRESS
162-164 NICHOLSON ST, ABBOTSFORD, VIC 3067



ESTABLISHED 1968

RETURN & REFUND POLICY All items must have a return authorisation number. Call customer service to request a R.A. Defective merchandise under warranty will be repaired or replaced. Returned products must be complete with original packing. We do not offer refunds for products that do not perform satisfactorily. We have no guarantee for product performance.



Compilers

A comparison of Public Domain offerings

by Michael Taylor

When the Amiga was first released the programming language supplied with it was ABasic (back in the days of Kickstart 1.0), a Microsoft Basic look-alike. The operating system was written using BCPL, a C like language, and all the Amiga's system libraries were documented for C or Assembly programmers. Added to this was the fact that calling system functions from Basic was not easy.

With Amiga Basic and Kickstart 1.2 it is easy to call external routines but any programs written in Basic will not run except while being interpreted by Amiga Basic. This means that Basic programs are slow and limited in size. The Amiga was in need of an inexpensive C compiler. There are a number of commercial C compilers on the market; but in Australia these cost over \$400, far too expensive for the average Amiga user who probably saved up for an Amiga for quite a while.

What's available

There are a growing number of Public Domain or Shareware C Compilers available for the Amiga. However the biggest advantage of public domain software, its price, is also its biggest disadvantage. There is no guarantee of quality and support is dependent on the goodwill of the (unpaid) programmers who have probably already spent many long evenings and nights working on the programs. To help overcome this limitation I have evaluated four public domain and shareware C compilers for completeness and usability.

The first C Compiler released was on Fish Disk 53 and could only compile the most rudimentary C programs. It also had no support libraries and did not support floating point maths. This version was re-released on Fish Disk 110 along with an assembler and was more useful although still very limited. It still had no support libraries and did not support floating point. After this was released the Public Domain C Compiler, Sozobon C, from the Atari St was transferred over to the Amiga and appeared on Fish Disk 171. This compiler was ported fully on to the Amiga and appeared as Version 1.01 with floating point maths support and support libraries on Fish Disk 314.

About the same time PDC V3.3 was released. This was derived from the C Compiler on Fish Disk 110 but had been enhanced with floating point maths support, bug fixes and support libraries. NorthC was released on Fish Disk 338. This compiler originated from the Sozobon C Compiler on Fish Disk 171 but has had Floating Point Maths and support libraries added. The newest release of NorthC is V1.1 on Fish Disk 353.

Later PDC V3.33 was released on Fish Disk 351 and DICE V2.02 (Dillon Integrated C Environment) on Fish Disk 359. The last compiler is a shareware product (suggested donation \$40) and will become a commercial product in the future.

So at the moment the C Compilers available in the public domain are:

- PDC V3.33
- Sozobon C V1.01
- NorthC V1.1
- DICE V2.02

Table 1:
General Information and Features

	PDC	Sozobon	NorthC	DICE
Version	3.33	1.01	1.1	2.02
Includes:				
Driver (eg CC)	Yes	Yes	Yes	Yes
Integrated Preprocessor	Yes	Yes	Yes	No
Separate Preprocessor	No	No	No	Yes
Integrated Compiler and Assembler	No	No	No	No
Make Utility	Yes	Yes	Yes	Yes(1)
Disassembler	Yes	No	No	No
Integrated Environment	No	No	No	No
Own special Assembler	No	No	No	Yes(2)
Editor Supplied	No	No	No	Yes
Source Code Supplied for:				
Start-Up	Yes	Yes	No	Yes
Libraries	Yes	Yes	No	Yes
Compiler	Yes	Yes	No	No
Disk Requirements in kilo bytes:	500	300	300	500

(1) DICE comes with DMAKE which is not a UNIX compatible make.

(2) The assembler with DICE does not handle all the M68000 op-codes but A68K is supplied with it if you wish to write assembly programs.

Table 2:
ANSI features

	PDC	Sozobon	NorthC	DICE
Prototypes	Yes	No	No	Yes
New Preprocessor	Yes	No	No	Yes
Directives	Yes	No	No	Yes
<stdarg.h>	Yes	Yes	Yes	Yes

NOTE: This table does not attempt to show how closely the C compiler conforms to the ANSI C standard. There are validation suites of programs available for testing ANSI C conformance (for example the PLUM-HALL validation suite) but the aim here was to show which compilers have had ANSI features added by looking at the a couple of the most commonly used features i.e. Prototypes and the Preprocessor features such as #if and the macro "defined ()".

continued on p28

THE BEAST IS BACK . . .



SHADOW OF THE BEAST II

The sequel to the Top Selling Amiga game of 1989

THE CONFLICT CONTINUES . . .

Your deadly struggle for freedom against the dark forces of the Beast Lord is now but a painful memory. You try to forget the anguish of the past by concentrating on your prize for success in the bloody battle: the return of your humanoid body.

But as you slowly adjust to your newly-won physique, the pain you thought gone is about to return . . . The Beast Mage has kidnapped your sister! She must be rescued before she falls foul of his dark arts. You journey to a hostile alien world to face the malevolent hosts of the Beast Mage and interact with more friendly characters to learn of your unfamiliar surroundings.

You must fight your way through many enemy-infested levels collecting and using weapons and objects to aid your crusade towards conflict with the Beast Mage . . . before he makes your sister his own!

Amiga £34.99



AND ON THE OTHER CHANNEL . . .

THE KILLING GAME SHOW

THE KILLING GAME SHOW . . .

. . . WILL HAVE YOU CLIMBING THE WALLS - IT'S THE ONLY WAY OUT!

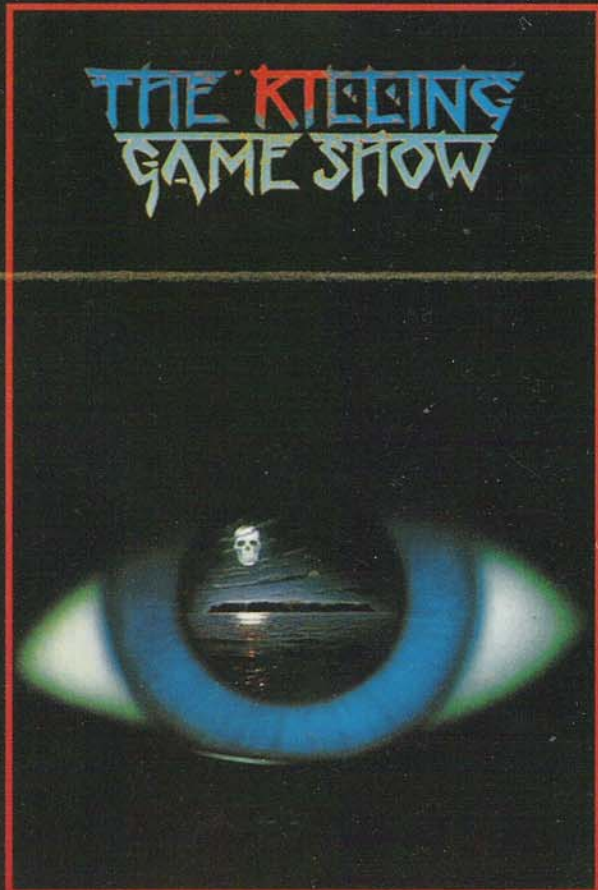
Suited in limited-protection armour you're the unwilling contestant on THE KILLING GAME SHOW. In front of a TV audience of millions you must battle your way to the top of 16 Pits of Death infested with Hostile Artificial Life Forms specially created by THE KILLING GAME SHOW's manic scientists to give you a hard time.

But . . . don't forget the rising fluid or it's "next contestant time". You must give the viewers their value for money - collect the awesome weapons and tools - if you can.

THE KILLING GAME SHOW will have you climbing the walls - it's the only way out! First prize is your life - Don't waste it.

Amiga/Atari ST £24.99

Amiga Screen Shots



**Table 3:
A comparison of Compiler Usefulness**

	PDC	Sozobon	NorthC	DICE
Will Compile Itself	Yes	No(7)	-(3)	Yes(4)
Floating Point	Double Only	Single Prec Only	Single Prec Only	
Compiled				
Microemac V3.10	No	No	No	No
Compiled A68K V2.61	Yes	Yes	No	Yes
Resultant Executable				
Size in Bytes	77500	85820	-	56336
A68 Executable Ran Correctly?	No	Yes	-	Yes

(3) No source was supplied and the documentation did not comment either way.

(4) The documentation made special mention of the fact that DICE is used for all the author's development work including DICE itself.

(7) Sozobon C was obviously compiled with Aztec C and some of the new code does not compile properly with the Sozobon Compiler. I tried editing the source code but the final executable did not resolve all the externals. At this point it was obvious that Sozobon C is not used to compile itself. The original version on fish disk 171 was also unable to compile itself even when cross-compiled on an IBM PC.

What you get

The PDC V3.33 compiler comes compressed onto one disk and when decompressed occupies two megabytes of disk space. Full source is supplied and a working compiler environment will require about half a megabyte of disk space. A two floppy disk setup with at least one megabyte of Ram is really the minimum setup for reasonable use of this compiler. The documentation is adequate to get you up and running.

A knowledge of C is not essential but a reasonable understanding of the Amiga's Command Line Interface (CLI) is necessary. There is incomplete documentation of the supplied libraries and adequate documentation concerning the use of the CC front end.

All source code is supplied so anything not mentioned in the

**Table 4:
Support Libraries**

	PDC	Sozobon	NorthC	DICE
AmigaDos Functions	No	No	Yes(5)	No
String Functions	Yes	Yes	Yes	Yes
Math Functions	Yes	Yes	Yes	No
Standard IO Functions	Yes	Yes	Yes	Yes
UNIX functions(6) e.g. open()	Yes	Yes	No	Yes

(5) NorthC supplies front ends to many of the AmigaDos library functions so that all the parameters are consistent. In my experience the parameters are consistent in most cases but the occasional exception does catch you unawares.

(6) Many people have used the UNIX-like low level functions such as open(), read() and write(). It makes the compiler more usable if it supports all or many of these functions.

**Table 5:
UNIX Compatibility**

	PDC	Sozobon	NorthC	DICE
access	Yes	Yes	No	Yes
chdir	No	Yes	No	Yes
chmod	No	Yes	No	No
close	Yes	Yes	No	Yes
creat	Yes	Yes	No	Yes
dup	No	Yes	No	No
dup2	No	Yes	No	No
execl	No	No	No	No
fileno	No	Yes	No	No
ioctl	No	No	No	Yes
fseek	Yes	Yes	Yes	Yes
mkdir	No	Yes	No	Yes
open	Yes	Yes	No	Yes
read	Yes	Yes	No	Yes
rename	Yes	Yes	No	Yes
rmdir	No	Yes	No	Yes
stat/lstat	No	Yes	No	No
unlink	Yes	No	No	Yes
time	Yes	Yes	No	Yes
write	Yes	Yes	No	Yes
varargs.h	Yes	No	No	Yes

This table lists important functions for UNIX compatibility but is not all-inclusive.

UNIX compatibility is important when attempting to compile programs which originated on a UNIX system or which use the low-level UNIX I/O functions. A68K is an example of the second case. It is clear that NorthC would have been unable to link A68K even if it had compiled it. To put the compilers through their paces I used two public domain programs as tests for major C source projects and a number of small one module C source files. The two large multi-module programs were A68K V2.61 (on Fish disk 314) and MicroEmacs V3.10 (on Fish disk 193). Each compiler was used to compile and link a number of programs. The first is the "Sieve" program (see Listing 1). This is a benchmark program often used to test compilers. It is a single source module. The next program is "Wc", a text file word count program. Again only one source module. The next program was "A68K" Version 2.61 by Charlie Gibbs. This comprises nine source modules and is a good test of memory requirements as some of the source modules contain very large functions. In fact two of the compilers required the use of disk storage for their intermediate files rather than the RAM: disk. I also attempted to compile MicroEmacs V3.10 but none of the compilers could handle this. When each program was compiled they were executed, using a test file where necessary, to get an idea of the efficiency of the code produced by each compiler. The results are summarized in the following table (Table 6).

All the tests were run on an Amiga 500, Workbench 1.3, Kickstart 1.2, one megabyte of memory and a IBM-PC type Hard Disk Drive.

documentation can be gleaned by carefully inspecting the source code. Extra utilities supplied with PDC are make, libr (an object-module librarian), dasm (a disassembler) and bind (a utility used to build a stub file from .fd files).

Sozobon C V1.01 is supplied on fish disk 314 in compressed form along with Charlie Gibb's A68K assembler Version 2.61. All source code is supplied along with documentation. You will

continued on p30

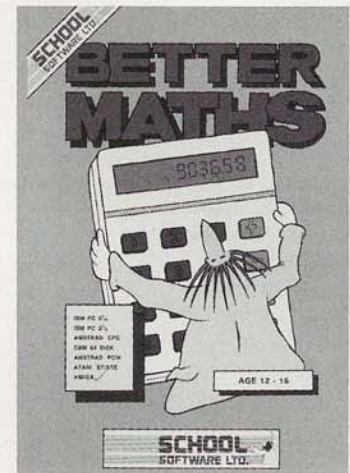
Pactronics Perfect Products

Pactronics has a great range of Education, Business and Entertainment Software.

Here are just some of the Latest Releases.

Education

BETTER SPELLING	Ages 8 to Adult	Amiga, C64, PC
BETTER MATHS	Ages 12-16	Amiga, C64, PC
MATHS MANIA	Ages 8-12	Amiga, C64, PC
MAGIC MATHS	Ages 4-8	Amiga, C64, PC
THE THREE BEARS	Ages 5-10	Amiga
JUNIOR TYPIST	Ages 6-14	Amiga



Business

HOME ACCOUNTS SYSTEM 3	A flexible Cash Accounting System Debtors, Ledgers, Stock Control, Invoicing, Statements	Amiga, PC, ST
DG CALC	A Powerful Spreadsheet	Amiga, PC, ST
MAIL SHOT PLUS DAY BY DAY	Label Printing Program	Amiga, PC, ST
MINI OFFICE	Diary & Appointment Scheduler, Project Planner Wordprocessor, Spreadsheet, Database, Label Printing + More	Amiga, PC, ST PC, C64

Entertainment

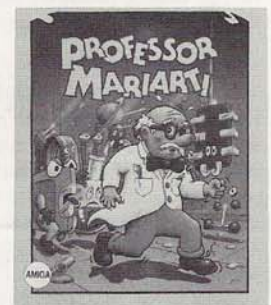
ATOMIX	Addictive Puzzle Game	Amiga, PC, C64
WHEEL OF FORTUNE	Family Feud is also available	Amiga, PC, C64
NIGHTMARE ON ELM ST	Help remove Freddy from Elm St.	PC, C64
SHERMAN M4	Superb Solid 3D Tank Simulation	Amiga, PC
MAD PROFESSOR	Guide the Professor through this Arcade Maze	Amiga
MARIARTI		Amiga
WEB OF TERROR	A Great New Arcade Game	Amiga

We have over 1,000 items of Software and Accessories.
If you would like a complete list of our products for your Computer,
please call us on (02) 748 4700 or (008) 227 465.

For your nearest retailer please contact:



N.S.W.: Pactronics Pty Ltd, 98 Carnarvon Street, Silverwater (02) 748 4700
VICTORIA: Pactronics Pty Ltd, 51-55 Johnston Street, Fitzroy (03) 419 4644
QUEENSLAND: Pactronics Pty Ltd, 12 Stratton St, Newstead 4006 (07) 854 1982
SOUTH AUSTRALIA: Contact N.S.W. or Victoria Office
WESTERN AUSTRALIA: Pactronics, Unit 13, 113 High Rd, Willetton 6155 (09) 354 1122
TASMANIA: ESP Marketing, 52 Elphinstone Road, Mt Stuart 7000 (002) 78 1606
NEW ZEALAND: Micro Dealer NZ Ltd, 60 Terakau Drive, Palupanga, Auckland. 274 0757



INSIST ON PACTRONICS PRODUCTS FOR VALUE AND QUALITY

**Table 6:
Benchmarks**

	PDC	Sozobon	NorthC	DICE
SieveCompile and Link (Minutes)	0:28	0:22	0:21	0:15
Execution (Minutes)	0:05	0:07	0:07	0:04
Size (bytes)	8408	8796	10120	5352
WcCompile and Link Execution	0:49	0:41	0:45	0:22
Size (bytes)	11956	11868	(-2)	8276
A68KCompile and Link Execution (no screen i/o)	13:48	10:00	10:49(3)	5:12
Execution (screen i/o)	(-1)	0:39	(-3)	0:35
Size (bytes)	(-1)	0:57	(-3)	0:50
Required Extra Disk Space For Temporary Files	77500	85820	(-3)	56332
	Yes	No	No	Yes

(1) PDC compiled A68K correctly but the executable did not correctly execute.

(2) NorthC compiled Wc but the link failed due to unresolved references. The low-level UNIX-like system functions read (), and open () were missing from the standard libraries. (2) NorthC failed to compile one of the source modules for A68K so the final link failed and no executable was produced.

require about three hundred kilo bytes of disk space and I would recommend at least two floppy disks and one megabyte of memory.

You can run Sozobon C with just the one floppy disk drive and half a megabyte of memory but it does limit the size of the programs you can compile. Memory limits would stop compiles from using RAM disk for temporary files and the amount of room available on a single floppy would restrict the number of Amiga-Dos commands and other utilities available without constant disk swapping. The documentation describes setting up the compiler in reasonable detail.

The main thing to watch out for is that installation is discussed in two files. Follow the instructions in the file "Getting Started" as it is the more complete.

The documentation of the supplied libraries is very clear and is the best of all the compilers. A make utility is supplied along with an assembly source level optimiser, top. No object-module librarian is supplied as the standard libraries are built by concatenating object modules together. This technique will work for all the compilers and is standard to the Amiga and many other machines.

NorthC V1.1 is supplied compressed on Fish Disk 353. When decompressed you will need about three hundred kilo bytes of disk space. The same system considerations should be followed as discussed for Sozobon C. The documentation is a little hazy about how to set-up the compiler but there is a file called "hello.doc" which takes you through the steps required to create a "Hello World" type program. This is probably a good place for the beginning C programmer to start.

Documentation for the supplied libraries is extensive and clear. You will require a working knowledge of C to use this documentation however. Also included is an explanation for using the Amiga's shared library routines. An object-module library is supplied to interface NorthC programs to the Amiga's support

routines.

A make utility is supplied along with a simple program to aid in the building of object-module libraries. NorthC comes with some example source files including a program to display dimensional models. This is a good example of using the Amiga's graphics capabilities.

DICE V2.02 or Dillon's Integrated C Environment is supplied on Fish Disk 359 in compressed form. When decompressed it requires about four hundred kilo bytes of disk space. The documentation is clear about installation. Using the Compiler front end is also explained clearly and there is documentation for each of the compiler stages if you would like to use a different preprocessor, for example. The supplied libraries are not documented in this version unfortunately.

There is a make utility supplied and, this is the only Compiler Package that did, an editor. The editor supplied (DME) is public domain and could be used with any of these packages so the omission of an editor does not seem important.

Source code is supplied for the libraries but not for the compiler itself (this is a Shareware Compiler!).

PDC V3.33 is a very solid C compiler. The integrated preprocessor had a few problems when compiling MicroEmacs V3.10. Some #defined symbols were not replaced and caused the compile to fail. The CC front-end works well but using the -Y switch to use a different preprocessor did not work. In fact it did nothing. The documentation clearly stated that using "-Y" would invoke the stand alone preprocessor CPP (on fish disk 338). The compiled version of A68K did not execute properly either.

Taking everything into consideration this is a solid public domain C compiler and is being supported by Lionel Hummel and Paul Petersen in the United States. The compiler will compile itself so is a useful tool for studying compiler design as well as learning C itself! It has some of the new ANSI standard features such as proto-typing and I can recommend it along with Sozobon C as a good "value-for-money" (it's free!) learning tool.

Sozobon C, although lacking many of the new ANSI standard features this C compiler produced a working A68K executable. Compile speed is nothing special and the final executable size is quite large. However it comes with an assembly optimizer called "top" and the final executables will run faster than those produced by PDC when optimized using it.

Along with PDC I can recommend it as a learning tool especially as full source is included. It is only a Kernighan and Ritchie Compiler (the original specification of the C language as described in "The C Programming Language By Kernighan and Ritchie, Prentice Hall, 1st Edition, 1978).

NorthC, this compiler, although derived from the same source as Sozobon C, failed to compile A68K or MicroEmacs. It does have floating point maths and a fair implementation of the standard libraries but the supplied cc front-end is not very solid and I cannot recommend it when the PDC and Sozobon-C compilers are available especially as the source code for the libraries and compiler are not supplied, a fact I thought was odd for a public domain offering. It is also missing the low-level UNIX system functions and so is limited in the number of programs it will be able to compile.

DICE, finally we come to what I consider to be the best overall compiler. Although there was a bug (reported in the documentation that came with the compiler) that prevented it compiling MicroEmacs it compiled quicker than the other compilers

continued on p36

One Good Book deserves Another and Another, and Another, and A...

Amiga for Beginners

An introduction to learning the popular C language. Explains the language elements using examples specifically geared to the Amiga. Describes C library Routines, how the computer works and more.

SUPPLEMENTARY DISK \$19.95

\$49.95

Best Seller

Amiga DOS Inside and Out (Book 8)

Complete, comprehensive guide to the Amiga operating system. This book even goes down to the chip design level. Revised for Amiga DOS 2.0.

\$49.95

Amiga BASIC Inside & Out

- the definitive step-by-step guide to programming the Amiga in BASIC. Every AmigaBASIC command is fully described and detailed. Topics include charts, windows, pull down menus, files, mouse and speech commands. Includes Workbench 1.3

SUPPLEMENTARY DISK \$19.95

\$49.95

Amiga Machine Language

- is a comprehensive introduction to 6800 assembler machine language programming and is THE practical guide for learning to program the Amiga in ultra fast ML. Also covers 6800 microprocessor address modes and architecture, speech and sound for ML and much more.

SUPPLEMENTARY DISK \$19.95

\$49.95

Amiga Advanced Systems Programmers Guide (Book 7)

This is the second volume detailing the "internals of your Amiga. This book includes the latest information on Kickstart and Workbench 1.3. If you work with the Amiga often, you'll quickly see how helpful this book will be in uncovering important information that you need.

SUPPLEMENTARY DISK \$19.95

\$69.95

New

Amiga More Tricks and Tips (Book 12)

This is the follow up to the best selling Tricks and Tips book. It contains detailed information on the new workbench 1.3 and Preferences 1.3. It also has information on modifying disk drives and extra memory.

SUPPLEMENTARY DISK \$19.95

\$49.95

Amiga Disk Drives Inside & Out

- is the most in-depth reference available covering the Amiga's disk drives. Learn how to speed up data transfer, how copy protection works, computer Viruses. Workbench and the CLIDOS functions, loading, saving, sequential, and random file organization, more.

\$49.95

SUPPLEMENTARY DISK \$19.95



Available from all major book shops (Dymocks, etc) and your local computer store (Grace Bros, Myer, Computerspot, etc)

Amiga 'C' for Advanced Programmers

C

Abacus

Amiga for Beginners

Abacus

Amiga 3D Graphics Programming in BASIC

Abacus

AmigaDOS Inside & Out

Abacus

Amiga Graphics Inside & Out

Abacus

Amiga Machine Language

Abacus

Amiga Desktop Video Guide

Abacus

Advanced System Programmer's Guide for the Amiga

Abacus

Take Off With Microsoft's Flight Simulator

Abacus

More Tricks & Tips for the Amiga

Abacus

The LARRY Story

Abacus

Amiga Disk Drives Inside & Out

Abacus

New

Amiga (For Advanced)

When you're ready to go beyond tutorials, examples and simple programmes, this book is your complete guide to programming in "C".

Amiga 3D Graphics Programming in BASIC

- shows how to use the powerful graphics capabilities of the Amiga. Details the techniques and algorithms for writing three-dimensional graphics programs: ray tracing in all resolutions, light sources and shading, saving graphics in IFF format and more.

SUPPLEMENTARY DISK \$19.95

\$49.95

Amiga Graphics Inside and Out (Book 13)

This is a comprehensive guide to understanding and using Amiga graphics. AMIGA GRAPHICS INSIDE AND OUT shows you simply and in plain English how to access and harness the graphic power of your Amiga. There are examples given for both AmigaBasic and C Languages.

SUPPLEMENTARY DISK \$19.95

\$49.95

New Release

AmigaDOS Quick Reference Guide

- an easy-to-use reference tool for beginners and advanced programmers alike. you can quickly find commands for Amiga by using the three handy indexes designed with the user in mind. All commands are in alphabetical order for easy reference.

Includes Workbench 1.3

\$19.95

THREE GREAT NEW TITLES

Amiga Desktop Video Guide (Book 14)

This is THE consummate reference guide to producing video and display material on your Amiga. It has been authored by Guy White, the founding editor of Amiga World, and covers every facet of Desktop Video.

\$49.95

Take Off with Microsoft Flight Simulator

Most players realise that Flight Sim is more than just a game. It's your passport into a whole new world. This detailed manual quickly and easily teaches you about turns, rolls, take-offs and landings. It also covers differing weather conditions and scenarios.

\$39.95

The Leisure Suit Larry Story

Follow the ups and downs in the life of Larry Laffer, star of Sierra-on-Lines hilarious adventures, Land of the Lounge Lizards, Looking for Love In All The Wrong Places and the latest, Passionate Patti And The Pulsating Pectorals. Hints and Tips, Problem Solving or the complete solution.

\$29.95

N.S.W. : Pactronics Pty Ltd, 98 Carnarvon St, Silverwater. (02) 748 4700

VICTORIA : Pactronics Pty Ltd, 51-55 Johnston Street, Fitzroy. (03) 419 4644

QUEENSLAND : Pactronics Pty Ltd, 12 Stratton St, Newstead, 4006. (07) 854 1982

SOUTH AUSTRALIA: Refer Head Office or Victoria.

WESTERN AUSTRALIA: Pactronics, unit 13, 133 High Rd Willeton 5155. (09) 354 1122

HOT!

DELUXE SOFTWARE

AMIGA
Deluxe Paint III
Deluxe Video III
Deluxe Print II
Deluxe Music
Deluxe Photolab

IBM
Deluxe Paint Enhanced
Deluxe Paint Animation

all only

\$99.95 each!



Computer Spot



MAIL ORDER

Unit 3, Metro Centre,
38-46 South Street, Rydalmere, NSW 2116

Phone (02) **638 2897**
TOLL FREE (008) 252 130. FAX (02) 638 0793

Prices subject to change without notification

HOT!! STOP PRESS! HOT!!

SOUND BLASTER CARD

\$385 - **SAVE \$114**

Add stereo sound to your P.C. Works with most software.

Commodore **AMIGA 500**
Starter Kit
\$899



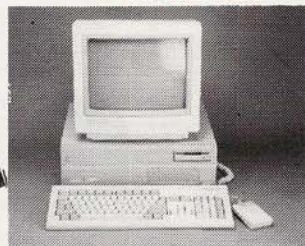
- Amiga 500 computer
- Kindwords 2.0
- Fusion Paint
- Interceptor
- Indiana Jones
- Kick Off
- Joystick

Commodore **AMIGA 500**
Deluxe Kit
\$1099



- Amiga 500 computer
- 1 Meg of RAM
- Kindwords 2.0
- Fusion Paint
- Maxiplan Plus
- Deluxe Music
- Info File
- Plus 2 games

Commodore **AMIGA 2000**
\$1699



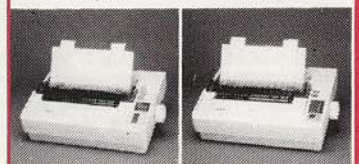
- Amiga 2000 computer
- 1 Meg RAM
- 9 expansion ports
- Workbench 1.3
- Extras (basic and manual)

Inc. 40 Meg Hard Disk **\$2499**
Monitor not included.

CITIZEN
Colour Printers

GSX140 200GX

\$799 **\$499**
24 pin 9 pin



SUITS AMIGA AND PC

- UNBELIEVABLE VALUE!
These printers have features that put others to shame.
- Push/Pull/Bottom feeding
 - Superior paper handling
 - High speed/light weight
 - 2 YEARS WARRANTY!

SEGA

Master System II

\$99



Includes game console, built in free game plus 1 free controller.

Lots of great games available!

Plugs into your TV

Commodore **64 Test Pilot Pack**

\$489



- Commodore 64 computer
- 1541 disk drive
- Joystick
- 4 air combat games

Plugs into your TV

Nintendo
Control Deck

\$149



Popular games console includes controllers

Games now available! (Ninja Turtles in stock)

Plugs into your TV

Nintendo
Game Boy

\$149



Fantastic new hand-held portable games system. LCD screen.

Includes free game. Others available.

Commodore **AMIGA**

A590

Hard Disk

\$699

- 20 Meg Hard Disk for Amiga 500
- Options for adding 2 Meg of RAM.

The professional addition to the growing Amiga 500 system!

Commodore **1084 Monitor**

\$449

SAVE \$50

- Suits Amiga computers
- PC compatibles CGA
- SEGA
- NINTENDO
- C64 and C128 computers

Cables for some systems extra

AMIGA 500
512K RAM

\$169

Inc. on/off switch and clock

AMIGA
External Disk Drive

\$179

Inc. on/off switch and pass through

STAR NX1000
COLOUR
PRINTER

\$399

Star's 9 Pin Colour Printer suits Amiga PC

SAVE \$100

C64/128 SOFTWARE

Computer Spot

Unit 3, Metro Centre, 38-46 South St, Rydalmere, NSW 2116

TOLL FREE (008) 252 130
MAIL ORDER
 Phone (02) 638 2897

ART AND GRAPHICS

Award Maker Plus	44 95
Award Ware	29 95
Looney Tunes Print Kit	29 95
Print Power	29 95
Print Shop	79 95

ARCADE ACTION

All Time Favourites	39 95
Back to the Future 2	35 95
Chase HQ	35 95
Cosmi Top 20	35 95
Double Dragon 2	39 95
Dragon Ninja	35 95
Escape Planet Robot Monsters	39 95
Fallen Angel	39 95
Flimbos Quest	35 95
Ghosts & Ghosts	35 95
Heroes	35 95
Hot Rod	39 95
Milestones	29 95
Ninja Spin	39 95
Ninja Warriors	39 95
Shoot 'Em Up Construction Set	34 95
Shadow Warrior	35 95
Turbo Outrun	35 95
Turrican	39 95
Vendetta	39 95
Vigilante	35 95
Wonder Boy in Monster Land	35 95
X Men	35 95

ADVENTURE

Bards Tale 1/2/3 Pack	54 95
Bloodwych	39 95
Castle Master	39 95
Champions of Krynn	54 95
Die Hard	39 95
Dragons of Flame	39 95
Might & Magic 2	44 95
Pirates	49 95
Secret Silver Blades	39 95
Starflight	34 95
Ultima 4	79 95
Zombi	39 95

SPORTS

Test Cricket	29 95
Wide World Sports	39 95
World Class Leader Board	39 95
International 3D Tennis	39 95
Italy 1990	39 95
Kick Off 2	39 95
Pro Tennis	49 95

Pro Tennis	49 95
TV Sports Football	49 95
Winners Italy 1990	35 95
World Cup Compilation	49 95

STRATEGY/SIMULATIONS

Battle Chess	39 95
Battletech	44 95
Blockout	44 95
Chessmaster 2100	49 95
Curse of Azure Bonds	39 95
Demons Winter	44 95
Dynasty Wars	35 95
Hillsfar	39 95
Pool of Radiance	39 95
Reach for the Stars	39 95
Rommel	39 95
Sargon 3 Chess	29 95
Star Trek Rebel Universe	29 95
Storm Across Europe	34 95
Ultima 5	79 95
Ultima Trilogy	69 95
Vegas Gambler	44 95
Stealth Mission	59 95
Chuck Yeagers Flight Simulator	34 95
Europe Ablaze	39 95
F14 Tomcat	44 95
F16 Combat Pilot	49 95
F18 Hornet	44 95
Ferrari Formula 1	39 95
Fighter Bomber	39 95
Hunt for Red October	39 95
Project Stealth Fighter	49 95
Red Storm Rising	49 95
Russia	39 95
Test Drive 2	39 95
Test Drive 2 Cars	29 95
Test Drive 2 Scenery	29 95

BUSINESS & UTILITIES

Data Manager	39 95
Kwik Write	24 95
Mini Office 2	44 95

Newsroom	39 95
Paperclip Publisher	54 95
Swiftcalc	39 95
Top 20 Software Tools	39 95
Word Writer 5	69 95
Action Replay Mk 6	134 95
Fast Load Cartridge	49 95

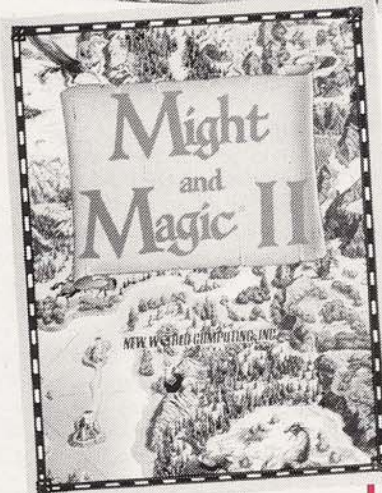
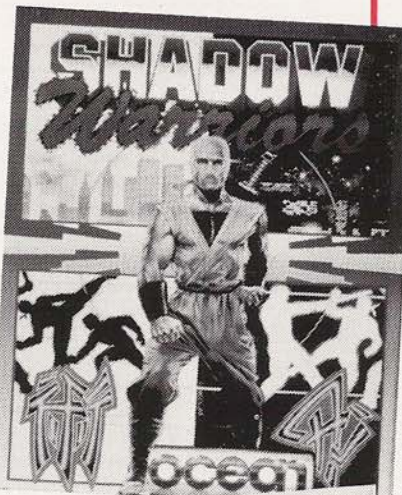
EDUCATIONAL

Alge Blaster	69 95
Designasaurus	44 95
Family Feud	29 95
Funschool 2-6, 6-8 or 8 up	24 95
Math Blaster	59 95
Mavis Beacon Teaches Typing	49 95
Race Car Rhythmic	39 95
Sim City	59 95
Type	39 95
Wheel of Fortune	29 95
Where in Europe is Carmen	69 95
Where in USA is Carmen	69 95
Where in World is Carmen	69 95

C64 HARDWARE

C64 Test Pilot Pack	489 00
1541 Disk Drive	299 00
Datasette	49 95
1084 Colour Monitor	449 00
Printer CBM MPS1230	299 00
Printer Citizen 5800/1800	369 00
Action Replay Mk 6	134 95
Cable RF C64	14 95
Cable Serial 1 5M C64	14 95
Disk Notcher	14 95
Fast Load Cartridge	49 95
Power Supply C64	59 95
Star Cursor	59 95
Xetec Super Graphics Interface	129 95
M3 Mouse	69 95
Budget Joystick	9 95

Prices subject to change without notification



BRISBANE
 225 George Street
 Brisbane, QLD 4000
 Phone: (07) 229 8011

BURWOOD
 185 Burwood Road,
 Burwood, NSW 2134
 Phone: 744 8809

CHATSWOOD
 Shop G9, The Gallery,
 Endeavour Street,
 Chatswood, NSW 2067
 Phone: 419 2333

CITY
 165 Castlereagh Street,
 Sydney, NSW 2000
 Phone: 261 4344

HURSTVILLE
 185E Forest Road,
 Hurstville, NSW 2220
 Phone: 570 7333

LIVERPOOL
 Shop 4, Westfield
 Shopping'n, Macquarie
 St, Liverpool, NSW 2170
 Phone: 601 7700

NEWCASTLE
 180 Pacific Highway,
 Charlestown, NSW 2290
 Phone: (049) 42 1522

NORTH SYDNEY
 Shop F1, Tower Square,
 155 Miller Street,
 North Sydney, NSW 2060
 Phone: 954 9116

PARRAMATTA
 Shop 21a, Greenway Arc.,
 222 Church Street,
 Parramatta, NSW 2150
 Phone: 891 1170

PENRITH
 Shop 1, Carvan Arcade,
 389 High Street,
 Penrith, NSW 2750
 Phone: (047) 32 3377

Please send me FREE regular issues of Chip Chat magazine
PHONE FOR LATEST NEW RELEASES

MAIL ORDER FORM

PRODUCT/PROGRAM NAME	COMPUTER	DISK TYPE	QUANTITY	PRICE

For Software only, add \$3.00 for post or \$15.00 for courier. For hardware, call to arrange.

Send to: Micro Computer Spot, Unit 3, Metro Centre, 38-46 South St, Rydalmere, NSW 2116

We will exercise all reasonable care in the processing of your orders but we accept no responsibility for orders, monies or products lost or delayed in transit. Your order will normally be processed within 48 hours, but please allow 14 working days for the fulfilment of orders. Telephone orders are, of course, welcome.

Whenever possible, please supply a phone number where contact can be made within normal working hours. **PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE. DO NOT SEND CASH.**

When paying by cheque please supply your home address and home telephone number together with normal working hours telephone number.

Method of payment, tick for Cheque Postal Order
 Tick for Bankcard Mastercard Visa AGC

Credit Card No.

Valid from Until end

Name as per card

TOTAL \$

POSTAL CHARGE \$

GRAND TOTAL \$

For delivery:

Name

Address

Postcode

Telephone () Date Sent

Signature of cardholder



and produced smaller executables.

Floating point maths is not yet implemented but this is in the works and if you register you will receive a version with floating point maths when it is available. DICE is by Matt Dillon, a programmer who has become a legend in the Amiga public domain marketplace, and is his first shareware release. It will also be released as a commercial product in the future but not for the next six months to a year. The question is would I pay the shareware fee? If it had compiled MicroEmacs V3.10 as well as A68K I would be very tempted to send my fee in now. As it is I will send it in as soon as I can evaluate a version with the bug I mentioned fixed and floating point maths added. Anyway you can get V2.02 on fish disk 359 and try it out for yourself! Recommended with only a few minor reservations. This is a very solid product and rivals the commercial versions in many ways.

Which version would I use?

Both Sozobon C and PDC come with full source code and would be useful for learning compiler design. Sozobon C even has an assembly source code optimizer - interesting for assembly programmers as well. Unfortunately NorthC has too many problems for me to consider at the moment and does not come with source. So if I wanted to develop programs on the Amiga I would choose DICE. If, however, I was learning C then either PDC or Sozobon C would be good choices. Bear in mind that PDC did produce an executable (for A68K) which did not work properly and is the slowest of the two when it comes to compiling and linking.

The other consideration is memory. PDC is memory hungry and so on systems with limited memory it will be limited in the size of the programs it will handle. Sozobon C might just edge out PDC on its performance in the benchmarks and it does require less disk space. Feel free to experiment as both compilers are free and either one will be a good choice!

Discography:

PDC V3.33	Fish Disk 351
Sozobon C V1.01	Fish Disk 314
NorthC V1.1	Fish Disk 353
DICE V2.02	Fish Disk 359

Listing 1: Sieve.c

```
/*
Sieve.c
```

Based on the ubiquitous Sieve program used in many magazines to evaluate Compiler and machine performance

```
*/
#include <stdio.h>

#define true 1
#define false 0
#define SIZE 8190

char flags[SIZE+1];

int
main()
{
    int i, p, k, cnt, iter;

    printf("10 iterations\n");

    for (iter = 1; iter <= 10; iter++) {

        cnt = 0;

        /* initialize array of prime / non-prime indicators */
        for (i = 0; i <= SIZE; i++)
            flags[i] = true;

        /*
        find primes in first SIZE integers
        */
        for (i = 0; i <= SIZE; i++) {
            if (flags[i]) {
                p = i + i + 3;
                k = i + p;
                while (k <= SIZE) {
                    flags[k] = false;
                    k += p;
                }

                ++cnt;
            }
        }

        printf("\nNumber of primes was %d\n", cnt);

        exit (0);
    }
}
```

KICKBOARD FOR YOUR A500/2000

Now, you too can experience the benefits of running an Amiga computer with onboard dual kickstart rom's, either 1.2 & 1.3 or the new, soon to be released 2.0 kickstart rom. KICKBOARD comes with easy to follow fitting instructions, No soldering needed, the board holds both your ROMs and comes to you complete with cable & switch ready for you to simply plug it in, inside your Amiga! Phone orders by Mastercard/Bankcard welcome. Post & pack add \$2-40 anywhere in Australia same day despatch **KICKBOARD...\$37-50** 12 Month warranty

UNITECH ELECTRONICS PTY. LTD.
10Am-6Pm Mon-Fri. Tel:02-603-4318
Dealer inquiries welcome :Fax:02-603-8685

CHEST - TOP PUBLISHING

WITH "ROMAC" HEAT TRANSFER RIBBONS

Earn extra income by supplying custom printed t-shirts etc. in vivid colours on your dot matrix printers by simply ironing on. Supply to friends, clubs, schools etc. Print in colour on your mono printer. Available in 7 individual colours or multi-colour for

colour printers. Fully washable and colourfast. Ring now for prices and availability.

Romac Computers
PO Box N122
Petersham Nth 2049
Ph: (02) 547 2306
Fax: (02) 547 2813

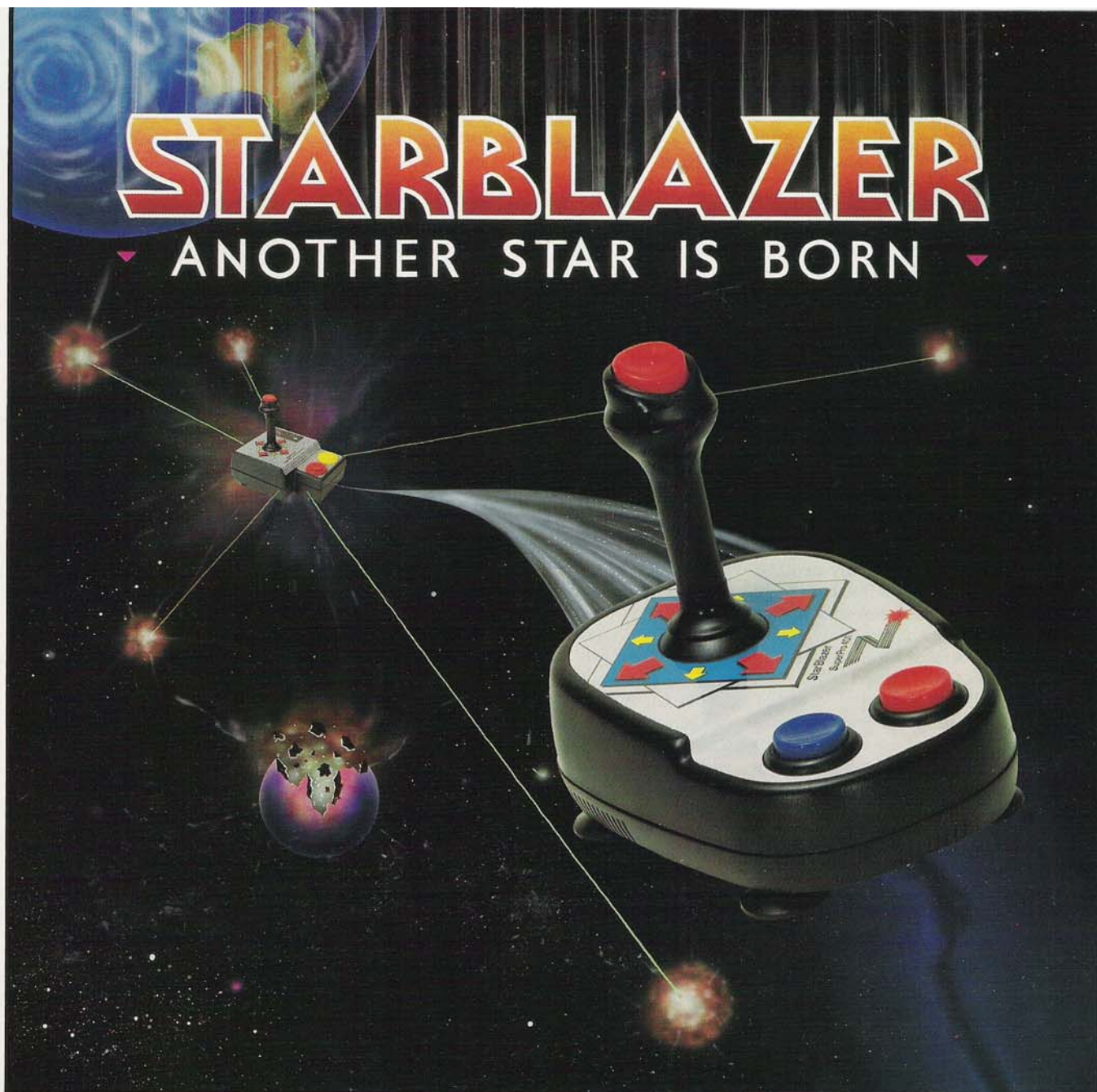


DEALER ENQUIRIES WELCOME

" IF YOU CAN PRINT IT YOU CAN WEAR IT "

STARBLAZER

ANOTHER STAR IS BORN



From the manufacturer of the legendary "STARCUSOR" joystick comes the second addition to the Australian made range of joysticks.

The "STARBLAZER" joystick is packed with features in a compact and sturdy design.

The right joystick for our times . . . fast and accurate, for the games enthusiast who wants the best in feel and response.

PACKED WITH FEATURES

- Full microswitch action.
- Microswitch fire buttons . . . dual on the base and one on the grip.
- New ergonomic pistol grip . . . just the right angle for extended play and quick response.
- Compact design . . . great for both hand held and desk top operation.
- Effective non slip suction cups . . . put it in place and know the joystick will not move.
- 180° swivel handle . . . for easy comfort game control.
- Three way switching . . . lets you decide where you want your firepower.
- Sega adaptable . . . easy switch over to Sega.
- GUARANTEED FOR 12 MONTHS . . . by the manufacturer Multicoin Amusements Pty. Ltd.



SEGA is a registered trademark of Sega Enterprises Inc.

Dealer Enquiries: MCA Phone: (075) 37 5711 Fax: (075) 37 3743.

180° SWIVEL HANDLE

For easy comfort game control

MICROSWITCH OPERATION

BUTTON CONTROL SWITCH

(X) (X) (X) (X) (X) SEGA

Left Position:
Buttons 1, 2 & 3
Middle Position:
Buttons 1 & 2 operate
Right Position: Sega operation



THREE PUSH BUTTONS

Can be used with any game

SOLID CONTROL

Four fast grip suction caps

A Desktop Publishing system for the C-64

by Eric Holroyd

I'm continually surprised by the high quality of new items for the 64 which continue to appear in spite of the industry gurus who keep insisting that it's dying off. I know the Amiga has sold in vast numbers and a lot of 64ers have traded in on it, but the fact remains that there were over 1,000,000 pieces of 64 software sold in the last financial year. This shows that there are many dedicated users still out there and it's these folks who, I'm sure, will be interested in this package.

Having an Amiga as well as my trusty 64 means that I've already gotten used to the so called 'graphical interface' where files are loaded, programs are run and pictures displayed etc all by directing the on-screen pointer and clicking a button. Berkeley Softworks excellent GEOS has brought this same environment to the 64 and 128, and so many non-Amiga users will have seen the system in action on their machines too.

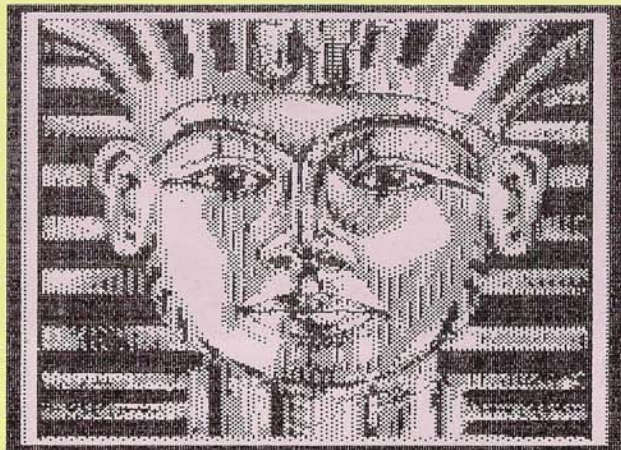
Pagefox uses just such a 'point and click' system with icons (pictorial representations) of various tasks in its various menus. There are keyboard alternatives for many of the icons too and much use is made of the C= key for this. In my experience with various Amiga programs I've ended up using a combination of point and click and the keyboard commands. Like anything else, whatever works best for you, once you've actually got used to the program, MUST be right.

The actual pointing and clicking can be done with either a joystick or the Commodore 1351 mouse, with *Pagefox* automatically recognising which device is being used. I found the joystick method (waggle the stick around to move the pointer and press the firebutton to select) to be a little clumsy, just as I did when I was using GEOS a lot. I don't have a 1351 mouse to try it out with unfortunately, but I've got no doubt that it would work well as *Pagefox* seems to have been designed with the mouse in mind.

You could either get the mouse yourself or go for the miniature 'joystick' de-

vice called the 'Icon-troller' which was made specifically for GEOS users to point and click with. I used one for quite some time and found it perfect. It sticks to the front corner of your keyboard and is finger operated to move the pointer around the screen and I think it's a quite viable (and inexpensive) alternative to the mouse.

Pagefox comes from Germany and is produced by the Scanntronik company (who also make a great graphics scanner for the 64, and more about this later) and has in fact been available there for some time. It was first copyrighted in 1987 and the version I looked at was the latest update.



The entire *Pagefox* program is on a cartridge which means that it doesn't use any of the 64's memory, plus it loads instantly when you switch on the computer. At power-up you're automatically in the 'Layout Editor' which is one of the three main areas of the program. The other two are the Text Editor and the Graphic Editor. There's a chapter dedicated to each of the Editors in the manual which gives you a rundown of the various features and explains just what each icon does. The cartridge may be left in place whilst you use other programs if you wish, with C= and Q allowing you to exit to BASIC.

Pagefox

The manual recommends that you fit a Reset switch too, if you haven't already done so. That way, if you quit to BASIC accidentally you can get back into *Pagefox* by pressing the Reset switch and have all your data still intact in memory.

Graphic Editor

The Graphic Editor is a full-featured drawing program with its features spread over three different menus. It lets you create drawings, sketches and other graphics using Lines, Boxes, Circles, Ellipses etc. It has Spray and Fill features and allows you to enter text in a variety of font styles and sizes. The MOVE command deserves a special mention as it allows you to move a graphic object around the screen for absolute 'pixel perfect' placement wherever you want it.

There's a Zoom command to magnify the picture for accurate detail work, plus you have Erase and Undo features too. Graphics may be overlaid with 'And', 'Exor' and 'Or' icons and whilst you're drawing you'll know exactly where you are in relation to the finished full page thanks to the 'Display of Coordinates' readout.

Freehand drawing is allowed too, as are 'Stamps' and 'Brushes' where you pick a section of the picture out and use it as a Brush to paint with or a Rubber Stamp to make patterns with. A good example of this might be a 'Smiley' face with which you could paint all around the picture to make a border for a kid's greetings card.

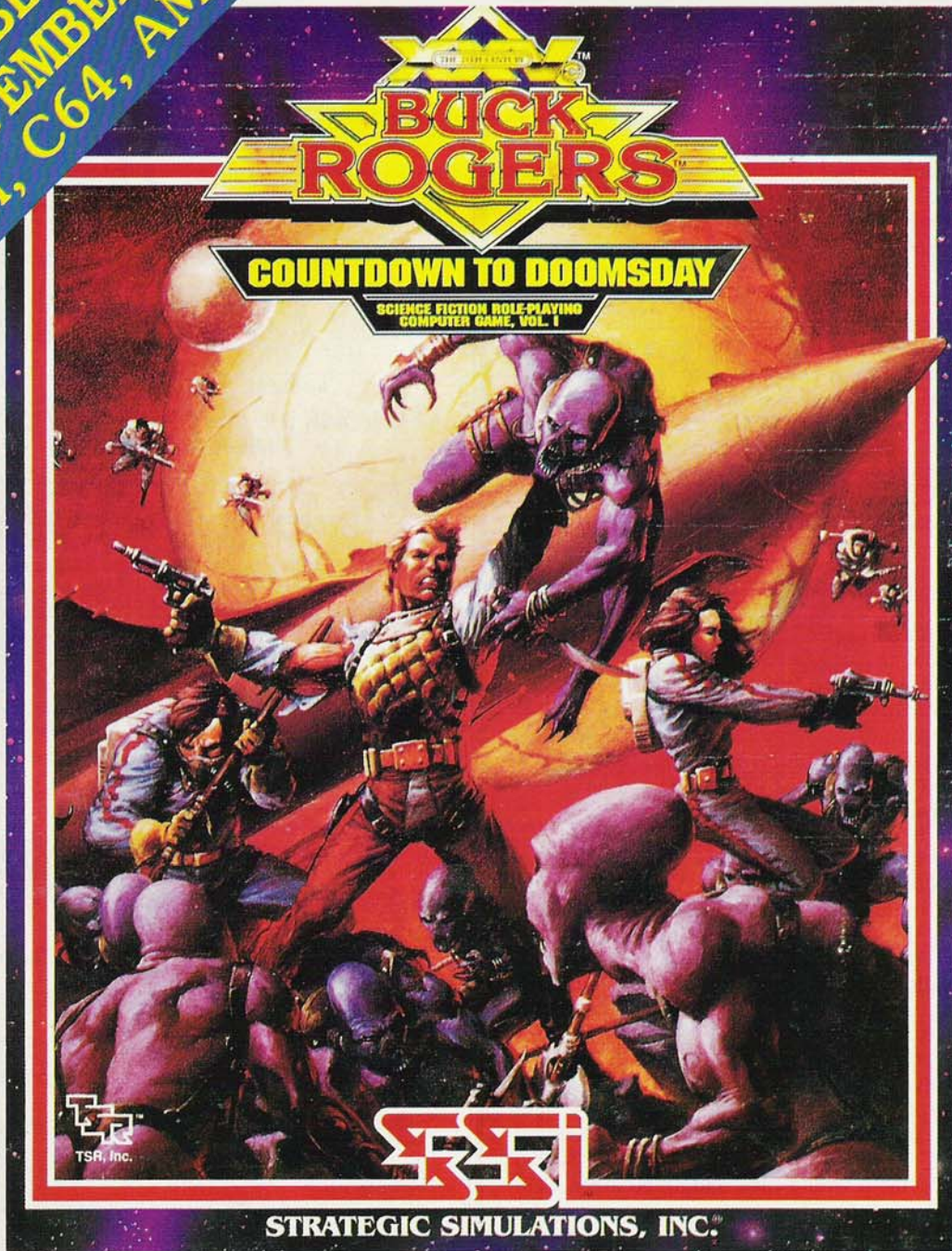
There's a Sprite Editor built in to the Graphics Editor too as well as a kind of Photo Laboratory where you set the size and shape of your graphics and store them on disk for later use. This section is also where you integrate your graphics into the text and make a complete layout, such as a newspaper page for instance.

Then, before sending it to the printer, you can see the fully finished job right there on screen EXACTLY as it will be on paper. This is known as WYSIWYG -

**AVAILABLE IN
NOVEMBER**
For IBM, C64, AMIGA

THE BUCK

STARTS HERE !!!



* A detailed computer role-playing game based on TSR's new BUCK ROGERS XXVc game system.

* Uses a specially enhanced version of SSI's award winning AD & D computer fantasy role-playing system.

* Pilot your spaceship across the entire inner solar system. Engage in ship-to-ship combat using lasers, missiles and kinetic cannons.

* Battle a myriad of strange beings, including lightning reflexed Terrine battle gennies, galactic pirates and assault robots.

* Spacesuits, Battle Armor, Breather helmets, special defense grenades and even a rocket belt, for quick movement in tactical combat, will help protect your characters from the elements and from their enemies.

**Dealer enquiries, please contact ECP/Electronic Arts
Ph: (075) 963 488 Fax: (075) 963 512**

which is an acronym for What You See Is What You Get - and is really quite an amazing feature. What's more, you can actually produce a full A4 page - viewable over eight screens - due to the enlarged memory made available by having *Pagefox* on cartridge.

The *Pagefox* format is 600 x 800 points pixels and is automatically compressed during Saving both to reduce load time and to save disk space, whilst the other (earlier and uncompressed) formats are 600 x 400 due to their lower memory constraints.

Printouts are done directly from the Layout Editor, and multiple documents with mixed text and graphics may be printed automatically (this feature is also known as 'global' printing). When in the Graphic Editor you may also do a print-out, but it's restricted to whatever is in the graphic memory, or you may opt to print just a section of it. A good range of 9-pin dot matrix printers is supported - Star, Commodore, BMC80, Shinwa, Mannesmann etc etc - and in three quality levels. The highest level is quite acceptable for newsletters, brochures, flyers etc and with a good printer ribbon you can get some pretty high class results.

Text Editor

The Text Editor is a sort of word processor where you enter and edit the text you'll be using in your finished job. The manual says that it's very similar to *Vizawrite* and is a logical follow-on (with some improvements naturally) to their *Printfox*. It uses 'embedded commands' to control features such as: Bold-face, Double Height, Double Width, Underlining, Sub- & Super-scripts, Italics etc and your text may also be done in 3D-Outline, Relief, or Shadow styles too.

All the regular word processing functions are included, such as: Cut, Copy and Paste, Indent, Tabs, Insert or Overwrite, Search & Replace etc. Entry into the Text Editor is by clicking onto the 'T' in the Layout Editor menu or by pressing C= and T together. (Incidentally, there's an appendix in the manual of all the keyboard equivalents along with other useful information). A really nice Text Editor feature is the CAPS function which you can activate during a Search & Replace to allow case sensitivity. For instance, if you want to search for 'the' and activate CAPS then *Pagefox* will find both 'the' and 'THE'. If it's not activated then it'll only find the word in the case in which you typed the word to Search for.

There's another nice one in Search and Replace in that you can use CTRL and J as a 'joker', eg, if you enter the Search word as "s(CTRL/J) me it would then find all occurrences of 'some' and 'same'.

Disk access from within the Text Editor is quite straightforward as regards Loading and Saving of files either via icons or keyboard commands (C= and L for load, C= and S for save) but there's a special Save command which lets you save just a part of the text by first marking it as you do for Cut and Paste. This can be very useful if you're putting together a special job using portions of text from several previously created documents. It certainly saves you a lot of re-typing! Reloading of these saved portions is a breeze as you're given a choice between 'Load' and 'Mix' with the first one being a normal load whilst the second lets you load a file on top of the current file with the new one being inserted at the cursor position. Using 'Mix' it's quite easy to load a number of short files to build up a complete document.

Other nice features incorporated into the Text Editor in-

continued on p42

Power hungry? Want to control your Amiga?

Now you can create your own GAMES, GRAPHICS, PRESENTATIONS and EDUCATIONAL PROGRAMMES without any programming experience.

It's NEW, it's ULTRAFast, it's EASY to USE and it's here!!

BLITZ BASIC

by BLACK BOX SOFTWARE.

UNLEASH THE AWESOME POWER OF YOUR AMIGA HARDWARE!!!

BLITZ BASIC puts you in control over the Amiga's GRAPHIC CHIPS. Not just another slow interpreter programme like others on the market, BLITZ BASIC is a FULLY INTEGRATED BASIC programming language that makes you the expert. Spectacular graphics can be generated with a minimum of commands.

Programmes generated are LIGHTNING FAST and FREELY DISTRIBUTABLE with the RUN TIME LIBRARY INCLUDED on BLITZ BASIC.

BLITZ BASIC enables you to produce QUALITY COMMERCIAL CODE that can run FASTER THAN 'C', yet is so SIMPLE TO USE that you are now able to take control of your Amiga's hardware powers.

FEATURES:

- * LIGHTNING FAST COMPILER - 6,5000 lines/minute.
- * BLINDINGLY FAST OPTIMISED OBJECT CODE. Complete re-write of AMIGA LIBRARIES. Where AmigaDOS takes 5 blits to move an object, BLITZ BASIC does it with one.
- * INTEGRATED EDITOR/COMPILER
- * SPECIAL EFFECTS such as FADE IN, FADE OUT and many more
- * Basic commands to handle IFF pictures, BRUSHES, ANIM BRUSHES, and SOUND samples
- * Handles DUAL PLAYFIELDS, EHB and HAM with speed and ease
- * DIRECT ACCESS to and CONTROL OF SPRITES (16 colours)
- * DIRECT CONTROL OF BLITTER and COPPER CHIPS
- * DIRECT CONTROL OF AUDIO HARDWARE
- * Brilliant new QUEUE SYSTEM makes Blits as easy to programme as Sprites
- * Display UNLIMITED SCREENS, as memory allows, IN ANY SIZE
- * Includes single-action SMOOTH SCROLLING of screens
- * SUB-ROUTINES can be run off VERTICAL INTERRUPT
- * DOUBLE BUFFERING/PAGE FLIPPING/VERTICAL SCREEN UPDATES
- * An entire SOUND SEQUENCER is included
- * BUILT-IN DISK FUNCTION LIBRARIES
- * ABILITY FOR MACHINE LANGUAGE PROGRAMMERS to add their own commands.

BLITZ BASIC is now available. Includes membership on our international BBS located in USA, Australia and West Germany. Send \$5 for the best Public Domain disk available - a sampler disk packed full of BLITZ BASIC DEMOS including source code.

Find out just how powerful you can be!

Black Box Software

Distributed by M.A.S.T

19-21 BUCKLAND ST. BROADWAY. N.S.W. 2007

PH: (02)281-7411

RRP \$149

GIANT ANNUAL CLEARANCE SALE

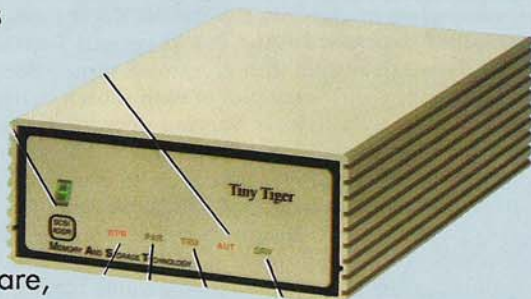


Large stock software - many at cost!!

Hardware - huge savings

all this month..

- * Floppy drives, hard drives, SCSI controllers, removable drives
- * Memory boards - 512k to 8MB, M.A.S.T. and U.S. brands
- * Music hardware & software - samplers, keyboards
MIDI interfaces, Dr. T range, Kawai FunLAB
- * Video - genlocks, framegrabbers, titling, 3D effects
- * Accelerators - GVP, Mega Midget Racer
- * Graphics/DTP /CAD solutions - hobbyist to professional software,
Laser printers, Flicker Fixer, graphics tablets, 3D and 4D multisync
monitors, 24-bit colour cards, digitizers, scanners



SAVE BIG MONEY ON HARD DRIVES

New products weekly from the USA. Latest US magazines by air.

HOT NEW PRODUCT

quality, Aussie-made, full-featured

GENLOCK \$799

treat yourself to a QUALITY genlock at half the price of the competition

FEATURES:

- * DIGITAL and ANALOGUE key capability with variable analogue key levels for special effects
 - * KEY ON/OFF vertical interval switched
 - * SMOOTH DISSOLVE CONTROL
 - * ALL PAL SCREEN RESOLUTIONS supported
 - * Advanced CMOS, low power circuitry
 - * Can remain plugged in without video signal
- ASK FOR A DEMONSTRATION

NEW STOCKS JUST ARRIVED!!

SUPER CARD AMI II

\$169

The hardware device for archiving. Copies Amiga, IBM, Atari and MAC 3.5" and 5.25" and MIDI keyboard disks.

KCS POWER PC BOARD FOR A500

\$699

KAWAI FUNLAB KEYBOARD - Come try it!

includes FREE MIDI interface, programmable keys
100 Rhythm and 100 Sound Library settings
A great Xmas gift for all the family
Stocks limited - be quick! X-mas Lay-By available

OPTICAL MOUSE - 3 button smooooth action \$129

THE LATEST.....

- CAMERON SCANNER \$729
- NERIKI GENLOCK \$1150
- SUPERPIC-Genlock/Framegrabber/
Digitizer in one unit \$1599
- ULTRACARD PLUS - latest
- CAN DO and CAN DO PRO PACK
- BARS & PIPES and MULTI MEDIA KIT
- MUSIC X and MUSIC X Jnr.
- GOLD DISK OFFICE - w/p, spreadsheet, DBase

BLITZ BASIC

\$149

Control your Amiga hardware. Write games, multimedia presentations with ease. Fast and powerful.

Why not enrol in a weekend class?
music graphics, video...a great gift!

Extended trading hours
Now open 7 days!!

ONLY THE BEST....save 50%

Japanese 3.5" disks

DSDD \$1.20 ea

Box of 50 - \$1 each

Mon-Fri 8:30 - 6 Sat-Sun 10 - 4

COMPUTER DISCOUNTS

19-21 BUCKLAND STREET, BROADWAY.Ph:(02)281-7411

clude hyphenation and automatic formatting. The latter is a form of right justification, which means that you get a nice straight line at the right hand side rather than ragged line endings. Hyphenation means that the program splits up a word and inserts a hyphen to make it all look right and you have a great deal of control over where and when it does this. The 'Joker' (CTRL & J) is used here to let *Pagefox* know that it can (if necessary) split a word with a hyphen. If the text formats OK without the need for Hyphenation then the Joker is ignored. Neat!

A feature only found previously in high level DTP programs is that of 'Kerning' which is best described as the adjustment of spaces between specific words as a final 'fine tune' to give your text that professional look. Really fine control down to just a couple of pixels is possible and of course, Kerning really comes into its own when using the larger fonts.

I'd talked earlier about the use of various fonts and there are 12 different ones built into *Pagefox* - Antiqua, Bocklin, Sans Serif, Futura etc - with examples of each shown in the manual. Each of these can be used in varying degrees of Outline and Shadow and there's FULL user control over the degree of outline shading used so that you can get some stunning effects. What happens is that you set the distance between the shadow and the character itself with an embedded command - one that you can see on screen but which doesn't get printed. The manual claims over 6000 possible combinations of font and style variations!

As I mentioned at the start of all this, when you switch on the 64 with the *Pagefox* cartridge in place you automatically go straight into the Layout Editor. This uses the 'rubber band' box system which *Koala Pad* and GEOS users will already be familiar with, and for the uninitiated this simply means that you set the top left corner of the box with a click and move the pointer to where the bottom right corner is to be and click again. The box then appears on screen and is all ready to receive your text and graphics.

It's quite easy to define a 'newspaper page' as a large box and you can have 1, 2 or 3 columns inside it. You can then load or enter data into the page with the text automatically flowing around graphics. The various icons on the menu let you select the different functions as in the other Editors and it's basically a question of following the manual as you're learning how to use the program so as to fully understand it all.

Like any other worthwhile 'productivity' program it's going to take a little while to learn to use and there's such a wealth of facilities built into *Pagefox* that it would take a mini-manual to explain it all here. Suffice it to say that it's a high class, full featured, professional Desk Top Publishing program, the like of which I never thought I'd see on the Commodore 64. The results from an ordinary 9-pin dot-matrix printer are excellent and if you have a requirement for advertising brochures, fliers, school newspapers, user group newsletters etc, then I can't think of any program that will do it as well as this one.

Manual

My only complaint about the whole thing is the manual. It's a 100-page effort, produced entirely with *Pagefox* itself, and was apparently translated from the original German by someone who's not all that good with English. It took me a little while to understand some of the features due to the quaint phraseology used here and there.

My major complaint with the manual was that whoever had compiled it had done a nice index but had omitted any page numbers alongside it. Pages are numbered, but there's no

Commodore and Amiga Review 42

reference in the index to a specific page so that if you're looking up, say 'Global Printing', you have to thumb through the book to find it! Most unusual, but I believe the distributor is currently having talks with Scantronik about a manual revision to cover the points I've raised.

The accompanying Demo disk has numerous files to help you get started with *Pagefox* and it's useful to load them up one by one and study the various commands to see how they work when you do the printout. I find this method of learning a program most useful and recommend that users take a little time to work through each demo file.

Graphics from Handyscanner 64 (the other Scantronik product I mentioned earlier) are completely compatible with *Pagefox* and I see this as a terrific combination of hardware for your 64. Imagine producing your newsletter with pictures of various personalities mixed in with the text, or detail from product brochures or magazines scanned in *Pagefox*. Or how about your own Christmas cards with photos of the kids?

The possibilities are endless and I'm sure that readers could think up a personal list of things to do with a scanner and a good DTP.

Best feature: Its power & versatility.

Worst feature: The manual.

Price: \$225

Distributed by: Romac Computers (02) 547 2306

Other products mentioned above:

Handyscanner 64 \$399. From Romac Computers

Icontroller \$40. From Computermate Products (02) 457-8388

Commodore 1351 Mouse \$69. Computer Spot (02) 891-1170



is NOW in AUSTRALIA

AMIGA hardware from ICD and Maxdrive Systems
GET THE ADVANTAGE FOR YOUR AMIGA

PRODUCT	DESCRIPTION	PRICE
Amiga 500 internal memory expansion		
AdRAM506	512KB RAM expansion card (unpopulated).....	\$85.00
AdRAM 505 K	AdRAM505 populated with 512KB.....	129.00
Ad RAM540	Up to 6MB of RAM and clock (unpopulated).....	250.00
AdRAM 540-K	Populated with 512K.....	326.00
AdRAM540-1	Populated with 1MB.....(with Super Agnus	399.00
AdRAM540-1.5	Populated with 1.5MB.... AdRAM 5-40 provides	475.00
AdRAM540-2	Populated with 2MB..... an additional 512KB	660.00
Ad RAM540-2.5	Populated with 2.5MB..... of Chip RAM)	626.00
AdRAM540-3.0	Populated with 3MB.....	700.00
AdRAM 540-3.6	Populated with 3.5MB.....	775.00
AdRAM 540-4	Populated with 4 MB.....	850.00
AdRAM 560D	Increase the capacity of an AdRAM 540 to 6MB (populated with 2MB RAM).....	450.00
SCSI Controllers A2000		
AdSCSI2000	Autobooting SCSI controller.....	299.00
2000+O40	AdSCSI 2000 and 42 Quantum hard disk.....	950.00
AdSCSI 2080	Autobooting SCSI and 8MB RAM controller (ok)	399.00
2080+O40	AdSCSI 2080 and 42MB Quantum hard disk (ok)	1050.00
Ad1IDE	Autobooting IDE hard disk controller for A500...	250.00
AdIDE+40	AdIDE with 40MB hard disk.....	799.00
Ad SPEED	Accelerator,suits all models.....	450.00
AdFlicker	Flicker Free Video, suits all models.....	599.00
ExtFDD3.5"	External FDD with ON/OFF switch.....	155.00
ExtFDD5.25"	5.25" External FDD with 80/40 track select.....	199.00

Prices Including Sales Tax

Prices and Specification subject to change without notice

Australian Distributor and Registered AMIGA Hardware Developer

Maxdrive Systems Pty. Ltd.,

P.O. Box 56, Darling Heights, Qld. 4350

Phone: (008)076301 - Orders Only

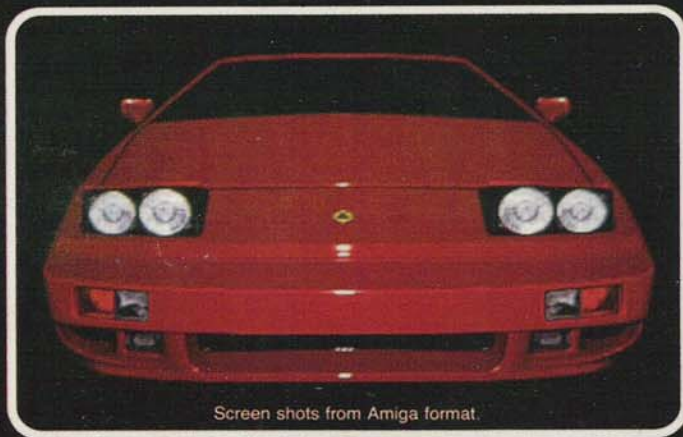
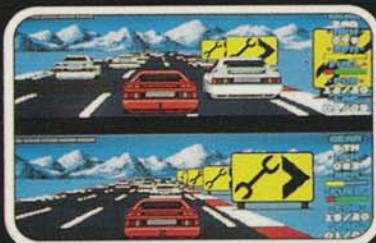
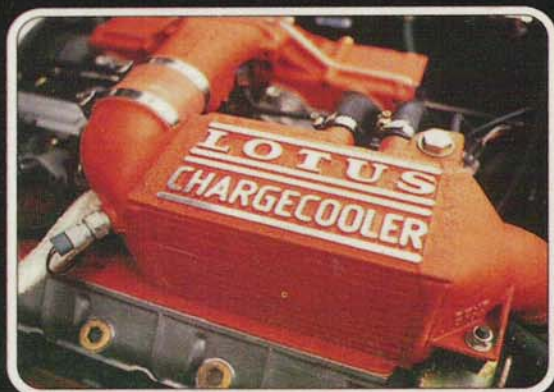
Enquiries: (076)302012. Fax: (076) 361458

VISA - MASTERCARD - BANKCARD - CHEQUE - Accepted



LOTUS ESPRIT

TURBO CHALLENGE



Screen shots from Amiga format.



Approved and licensed product of Group Lotus Plc.

ONLY GREMLIN CAN DO THIS

AVAILABLE ON
ATARI ST/STE & AMIGA
CBM 64/128, SPECTRUM &
AMSTRAD CASSETTE & DISK



Gremlin Graphics Software Ltd.,



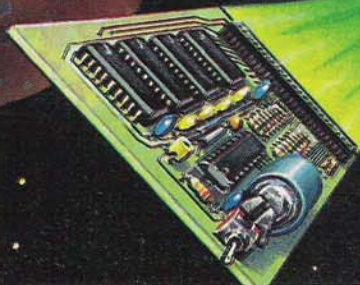
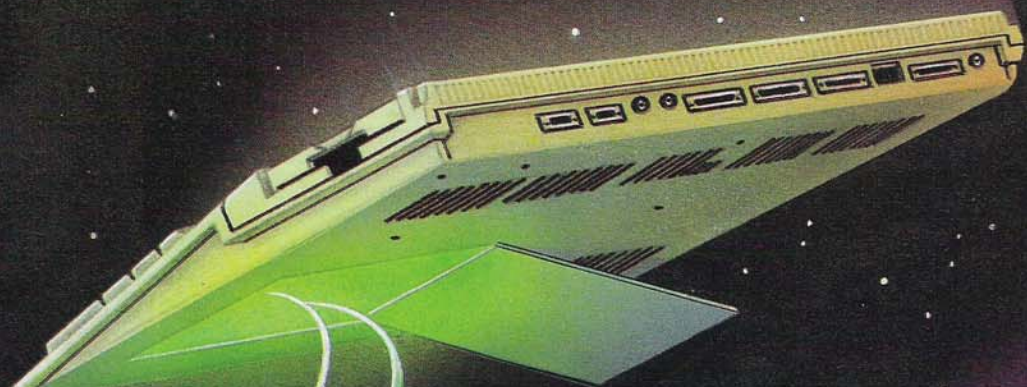
Proudly distributed by
Mindscape International
5-6 Gladstone Rd
Castle Hill, NSW 2154
Phone: (02) 899 2277
Fax (02) 899 2348

512KB RAM EX

AMIGA 500 MEMORY EXPANDER

- **EXPANDS** the Amiga 500 memory to over 1 megabyte allowing the user to play some of the latest games with enhanced sound and graphics.
- **SIMPLE** to install, just plug it in.
- **REALTIME** clock/calendar with **NICAD** battery backup.
- **NEW ENABLE SWITCH** — this switch allows you to turn off the extra ram at your leisure. **NOTE:** Some games require the extra ram to be turned off otherwise they won't run.
- **COMPATIBLE** — fully compatible with the AMIGA 500.
- **VERY LOW** power consumption.
- **12 MONTHS GUARANTEE.**

This product has been built in Australia by Home Entertainment Suppliers Pty. Ltd., using the latest **state of the art** technology. Only the best local and overseas components have been used to give you a highly efficient and compact component.



Proudly made and distributed in Australia by:
HOME ENTERTAINMENT SUPPLIERS PTY. LTD.
Unit 1/128 Bords Road, Riverwood 2210 NSW (02) 533 3277

PANSION CARD

For Commodore Amiga 500

Clock/Calendar and Enable Switch

AVAILABLE AT:

NSW

COMPUTER SPOT

Sydney Ph: (02) 221 1910
Liverpool Ph: (02) 601 7700
Hurstville Ph: (02) 570 7333
Burwood Ph: (02) 744 8909
Paramatta Ph: (02) 891 1170
Penrith Ph: (047) 32 3377
Hornsby Ph: (02) 477 0885
Chatswood Ph: (02) 419 2333
Charlestown Ph: (049) 42 1522

GAMES WIZARD

Granville Ph: (02) 882 1288

HARVEY NORMAN DISCOUNTS

All stores - Metro and Country

SHOP 4

Wollongong Ph: (042) 26 2688

STEVE'S COMMUNICATIONS

Fyshwick Ph: (06) 280 6877

THE GAMESMEN

Penshurst Ph: (02) 580 9888

QLD

HARVEY NORMAN DISCOUNTS

All stores - Metro and Country

PICK & PAY HYPERMARKET

Aspley Ph: (07) 263 1588

UNITED COMPUTERS

Ashmore Ph: (075) 97 3260

Bundamba Ph: (07) 292 6233

East Brisbane Ph: (07) 393 0300

Stafford Ph: (07) 356 9599

Underwood Ph: (07) 808 3366

ACTIVE COMPUTERS

Townsville Ph: (077) 72 3793

CITY COMPUTER CENTRE

Rockhampton Ph: (078) 27 3618

PCB ELECTRONICS

Cairns Ph: (070) 54 7305

DELTA ELECTRIC

Ayr Ph: (077) 83 1566

TROPICAL TV SERVICES

Townsville Ph: (077) 79 1421

TAS

ANGUS & ROBERTSON

BOOKSHOPS

Hobart Ph: (002) 34 4288

Launceston Ph: (003) 34 0811

QUADRANT COMPUTER CENTRE

Launceston Ph: (003) 34 3436

BIRCHALLS

Launceston Ph: (003) 31 3011

ROBBIES TELETRICIAN

Wivenhoe Ph: (004) 31 2560

SA

JOHN MARTINS

All Stores

HARRIS SCARPE

Rundle Mall Ph: (08) 203 4444

PLAZA COMPUTERS PTY. LTD.

Wadbury Ph: (08) 264 9399

VIC

MAXWELLS

Abbotsford Ph: (03) 419 6811

MEI SOFTWARE

Dandenong Ph: (03) 794 9813

Ferntree Gully Ph: (03) 758 9494

MIDI-MOUSE COMPUTERS

Werribee Ph: (03) 749 4138

Altona Ph: (03) 314 4669

Chadstone Ph: (03) 569 0278

WA

COMPUTER CORNER

Maddington Ph: (09) 459 0650

STANBRIDGE GAMES

Balcatta Ph: (09) 345 1922



WITH
**NEW
ENABLE
SWITCH**

HandyScanner 64

Preview

Serious C64 desktop publishers will be looking at filling their designs with graphics and illustrations. What better way than to use a scanner. Eric Holroyd managed a quick preview of the C64 Handy Scanner.

Handyscanner 64 looks like an oversized mouse and it works by being rolled over the picture to be scanned. It reads the picture as data into the 64's memory and once scanned, the picture can be 'tweaked' in various ways by Handyscanner's associated software which comes on a single disk.

A whole host of graphics manipulation features are provided. You can scale the picture to various sizes, make it darker or lighter or clip bits of it for use by themselves. If you own the *PageFox* program you can scan a picture directly into a document - which is pretty incredible when you come to think of it - not to mention time saving.

Both black and white or colour artwork may be scanned and of course if you have a colour printer you'll be able to print everything in just like the original from which you scanned. This would be nice for say, calendars with family photos, party invitations or thank you cards.

Whilst Handyscanner is fully compatible with *PageFox* (they were designed to work together) it IS a complete 'stand alone' unit too and you can scan all kinds of pictures and save them to a data disk for later use in slide shows and video displays as well as in DTP work.

Interface

Handyscanner comes with an interface which needs a small amount of current to drive it, and this is provided by a very sturdy West German power supply which has a two-pin plug on its cable. Naturally, this won't fit our domestic power sockets so the kit also includes a very handy multiple adaptor which you first of all plug into the wall, then plug the power supply into that. There are two sockets on the back of the interface which take the output from the power supply and the scanner itself. All this should be done with the power off at the wall and the computer switched off, of course.

This unit seems like a world first to me as I'd never heard of a scanner like this for the 64 before and it certainly pushes the computer to new heights of technical capabilities as far as I can see. Pictures are scanned with a resolution of 200 d.p.i. (dots per inch) on the Commodore 64, which is quite a respectable definition.

What I really think is a great feature is that the Handyscanner is completely compatible with the IBM PC (and its clones of course) which means that this single unit can be used at the office for business applications and taken home at evenings and weekends for the family to use on the Commodore 64! There's a PC Board required for IBM use and the resolution on the PC is at 400 d.p.i. The IBM compatibility is a great feature and I can imagine many households with both computers, or at least a 64 at home and a PC at the office.

Handyscanner 64 RRP: \$399

IBM PC Board: \$195

Pagefox: \$225

All are distributed by Romac Computers (02)546-2306

Commodore and Amiga Review 46

KEEP UP TO DATE WITH



Get your favourite magazines (air freighted), hot off the press each month, by ordering now and paying in advance for 12 months' issues.

Not only do you save, you're also first with all the overseas news.

MAGAZINES - Computer Related	12 MONTHS
ACE All Formats (U.K.)	\$ 96.00
AMAZING COMPUTING Amiga (U.S.)	\$ 96.00
AMIGA ACTION (U.K.)	\$120.00
AMIGA COMPUTING Inc. Disk (U.K.)	\$120.00
AMIGA FORMAT Inc. Disk (U.K.)	\$120.00
AMIGA PLUS Inc. Disk (U.S.)	\$ 96.00
AMIGA WORLD (U.S.)	\$120.00
COMPUTE! All Formats (U.S.)	\$ 96.00
INFO Amiga (U.S.)	\$120.00
PC LEISURE IBM (U.K.)	\$ 96.00
PC TODAY IBM Inc. Disk (U.K.)	\$108.00
RAMPAGE Amiga Mag on Disk (U.K.)	\$150.00
RAZE All Formats (U.K.) [was Games Machine]	\$ 96.00
ST ACTION Inc. Disk (U.K.)	\$120.00
ST FORMAT Inc. Disk (U.K.)	\$120.00
STRATEGY PLUS All Formats (U.K.)	\$ 96.00
THE ONE All Formats (U.K.)	\$120.00
VIDEO GAMES & COMPUTERS (U.S.)	\$108.00
WARGAMER (U.S.)	\$144.00
ZERO All Formats (U.K.)	\$120.00
ZZAP 64! (U.K.) Commodore/Amiga	\$ 96.00

MAGAZINES - General Interest

FANTASIA Fantasy/Role Play (U.K.)	\$ 84.00
FEAR Dungeons & Dragons (U.K.)	\$ 84.00
GAMES MASTER D&D/Strategy (U.K.)	\$ 96.00
GAME PLAYERS Board Games (U.S.)	\$108.00
INTER ZONE Sci-Fi (U.K.)	\$ 96.00
WARGAMER (U.S.)	\$144.00
WHITE WOLF Fantasy/Role Play (U.S.)	\$120.00

Get your magazines hot off the press each month!

Please send me the next 12 months' issues of:

Cheque

Credit Card No:

Exp. Date _____

Name Signed

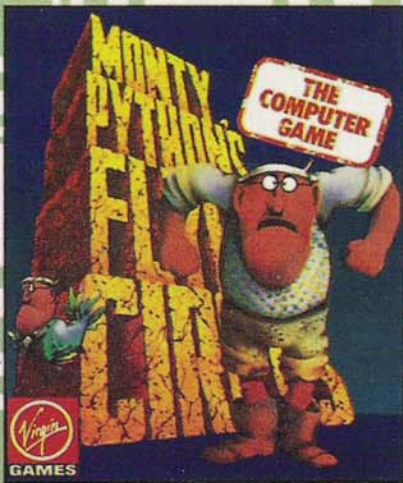
Address

Postcode Telephone

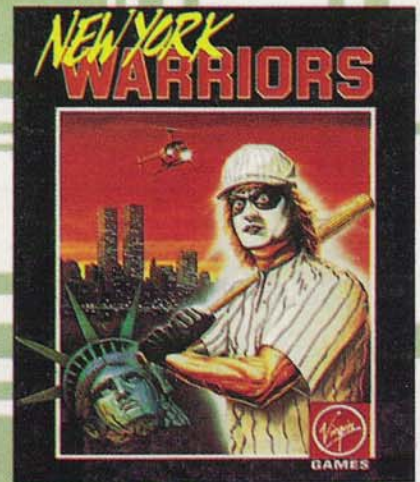
You can also order by phone. Just call 02 457 8388 and give your name, address and credit card number.

COMPUTERMATE
products (australia) pty. ltd.

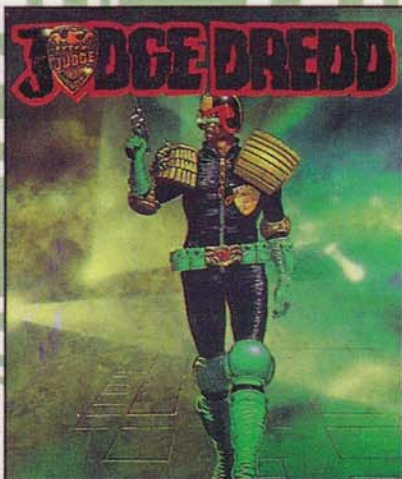
P.O. Box C64, Mt. Kuring-Gai, N.S.W. 2080



THE OFFICIAL MONTY PYTHON Computer Game has been internationally praised for its playability and humour, can **YOU** find Mr Gumby's Brain?



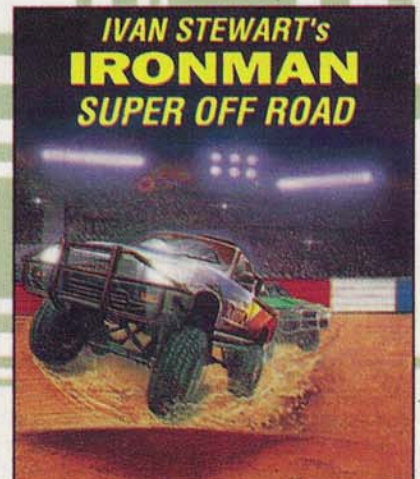
NEW YORK IN THE YEAR 2005. Terrorists are holding the city to ransom by planting a nuclear device in the World Trade Centre. Someone is needed to get rid of the Terrorists and defuse the bomb. Will it be **YOU**?



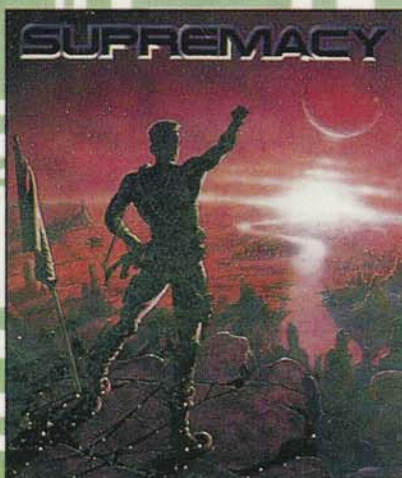
FROM THE COVER OF 2000 AD to the computer screen the Judge is sent to clear up the dregs of society in Mega-City One



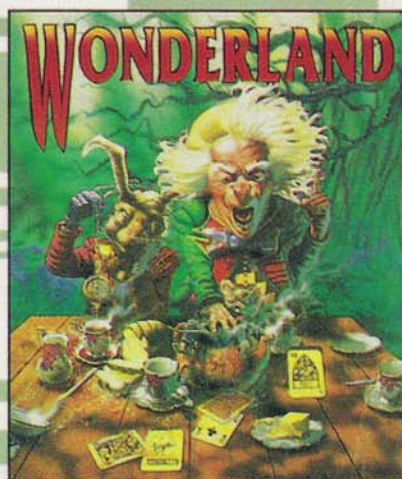
THE No. 1 ARCADE GAME! Now for computer. Mighty warriors, sword-swinging heroines, magic potions and dragon-riding knights are all part of this arcade hit



GRAB THE WHEEL and hit the Gas! Based on the No. 1 arcade game Super Off-Road is as close to genuine short-course racing as you can get



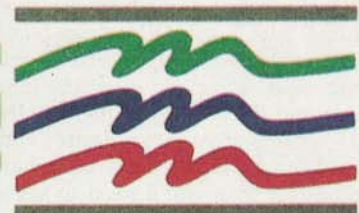
A STRATEGIC SPACE OPERA which thrusts the player into a head to head battle for domination against four enemy races



THE LARGEST EVER ANIMATED GRAPHIC ADVENTURE from *Magnetic Scrolls* draws you into *Lewis Carroll's* spellbinding imagination and never lets go!

MONTY PYTHON: © PYTHON PRODUCTIONS 1990
 NEW YORK WARRIORS: © ARCADIA SYSTEMS INC
 WONDERLAND: © MAGNETIC SCROLLS LTD 1990
 JUDGE DREDD: © FLEETWAY PUBLICATIONS 1989/90
 SUPREMACY: © VIRGIN MASTERTRONIC LTD 1990
 GOLDEN AXE: © SEGA ENTERPRISES LTD 1990
 SUPER OFF ROAD: LELAND CORPORATION 1989/90
 © 1990 VIRGIN MASTERTRONIC LTD

also Classic Games:
 DOUBLE DRAGON II
 DAN DARE III
 WORLD CUP SOCCER ITALIA '90
 EDITION ONE (Compilation)
 NINJA WARRIORS
 SHINOBI
 WAR IN MIDDLE EARTH



MINDSCAPE
 INTERNATIONAL

MINDSCAPE INTERNATIONAL
 PTY LIMITED
 INCORPORATED IN NEW SOUTH WALES
 5/6 GLASSTONE ROAD
 CASTLE HILL NSW 2154
 AUSTRALIA PH (02) 899 2277
 FAX (02) 899 2348

Using

Tiger Cub

by Eric Holroyd

This little gem from Dr T's Music Software was recently reviewed in ACAR and judging by the number of comments we've had, it's already proving to be very popular with Amiga musicians. The package is billed as "the music program for the rest of us" - which is a fair summation as it's an easy-to-use yet powerful music processor that works with or without a MIDI synthesiser connected.

As the band of *Tiger Cub* users seems to be growing so rapidly we thought it would be useful to run a series of tutorial articles on it, both with and without the MIDI keyboard connected. To avoid confusion with terminology I'll be referring to the MIDI keyboard from here on in as a synthesiser (or synth) rather than an instrument because that particular word is already used by *Tiger Cub*. Also, any references to the keyboard will mean the Amiga keyboard. In this first article I'll be showing how to get up and running using MIDI.

The package is billed as "the music program for the rest of us" - which is a fair summation

To do this you'll need a MIDI 'interface' to connect your synth to the Amiga. *Tiger Cub* will work with almost any brand of interface, and the simplest type consisting of a serial port plug with two cables fitted with 5 pin DIN plugs is all that's necessary if you only intend to use one synthesiser. Plug the interface into the Amiga and the two plugs into the IN and OUT sockets of your synthesiser and you're ready to go. If you have more than one synthesiser then you'll need to get a

more complicated interface that allows 'MIDI thru' in addition to the 'MIDI in and out' functions of the simple type. This will apply if you want to use, for example, a synthesiser coupled up to an external sound module plus a drum machine. One of them needs to be designated as the 'master controller' and *Tiger Cub* lets you do this easily. The master controller will then 'trigger' the other devices as and when you determine in your music and it's not very hard to do at all.

I'd imagine that if you own this much hardware then you'll probably know what you're doing anyway but to explain that to new users contemplating buying those extras let me say that it's not as frightening as you might think to connect all this stuff. Many of these musical devices have 'MIDI thru' sockets so that each may be connected to the next by a cable IN and another one OUT. Check out the illustrations shown here to see how it all works.

The MIDI concept itself is an international standard agreed upon by electronics companies in the early 80's which allows musical synthesisers and computers to 'talk' to each other. For a complete understanding of the subject I'd recommend the book that's become the industry 'Bible': *MIDI for Musicians* by Craig Anderton. I know that Sydney music shops such as Venue Music and The Guitar Factory stock it and the bigger book shops would too.

All of Dr T's music software is written to comply with the MIDI standard and once you've got your synthesiser hooked up to the Amiga and loaded *Tiger Cub* it makes everything as simple as playing

Boogie blues

The image shows a musical score for a piece titled "Boogie blues". It consists of three systems of music, each with three staves (treble, middle, and bass clef). The first system starts at measure 1. The second system starts at measure 5. The third system starts at measure 9. The notation includes various rhythmic values, accidentals, and phrasing slurs.

continued on p52



THE HIGHEST PERFORMING
SCSI AND RAM CONTROLLERS
FOR THE AMIGA 2000 AND 500

SERIES II

Over 900KB/sec transfer rate on a standard AMIGA 2000. 1.5 MB/sec transfer rate with a 68030 accelerator.



MICROLAB

COMPUTER CENTRE

PH: (03) 670 1533
FAX: 602 4776

SERIES II A2000

40Q MB Hard Disk + 8MB RAM Card (0mb)

\$1,295

SERIES II A2000

40Q MB Hard Disk Card **\$1,189**

SERIES II A2000

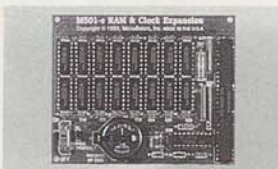
80 MB Hard Disk Card **\$1,395**

SERIES II A500

40Q MB Hard Disk + 8MB RAM all in a new slim unit

\$1,395

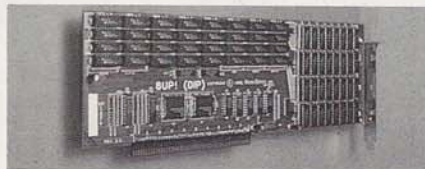
MICROBOTICS M501-S



Half a Meg, Clock and Switch
 ● 100% compatible with the equivalent Commodore part.
 ● Its built-in switch allows you to shut it down without having to uninstall it when ill-behaved software expects no more than 512K in your Amiga.

\$159

MICROBOTICS 8-UP



Maximum Memory In One Slot

- Install 2,4,6 or 8 full Megabytes in one slot
- Important to BridgeCard and 2620 users who need 6MB to max their systems.
- 8-UP is a power efficient (Less than an amp) zero wait state, AUTOConfiguring design.

with 2 MB **\$595**

AUDIO ENGINEER



Peter Norman, the author of Audiomaster 1 and 2 has gone a step further with the writing of Audio Engineer. This outstanding Australian product now includes the following features :-

- MultiLoop facility - like a digital sequencer
- Compression of sample files
- Stereo oscilloscope display
- Echo, delay and flange effects in real-time
- Hand draw wave forms
- Special effects
- Use up to 8MB RAM for sampling
- A full screen CD player - load and play up to 20 Sound files
- And many more features

\$189

Also available is Audio Engineer Plus. This includes a State-Of-The -Art stereo digitizer from GSOFT.

\$399

12 MONTHS WARRANTY ON ALL PRODUCTS

ITEM	FORMAT	QTY	PRICE
Name: _____			Postage
Address: _____			
State: _____ P/code: _____			TOTAL

Postage:
surface within Vic \$3.00 per item
surface outside Vic \$5.00 per item

Card type: _____

Card No: _____

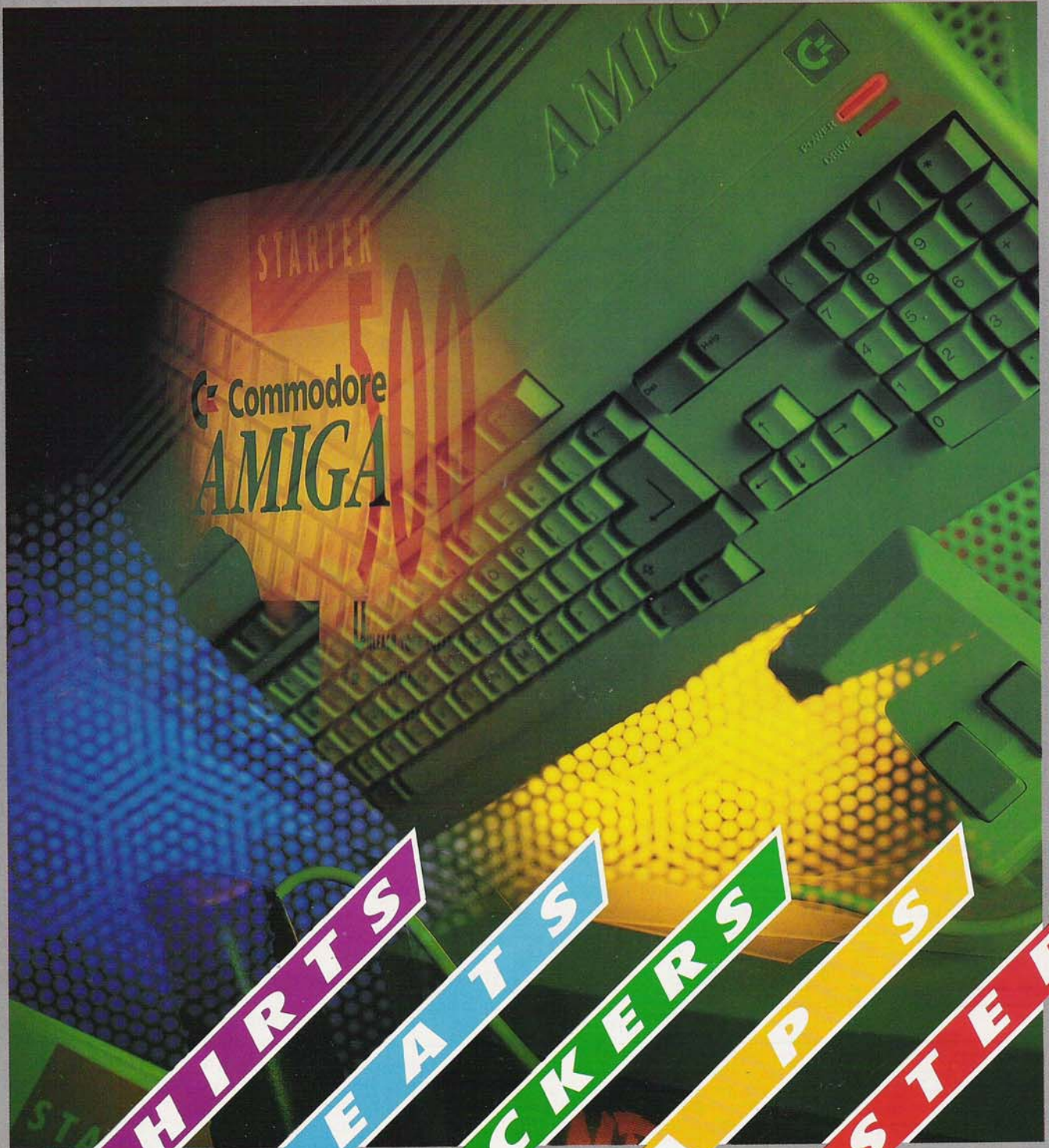
Expiry: _____

Signature: _____

POST TO: PACIFIC MICROLAB, 277 ELIZABETH ST, MELBOURNE, VIC 3000

AMIGA

G E A R



T SHIRTS

SWEATS

STICKERS

CAPS

POSTER

AMIGA

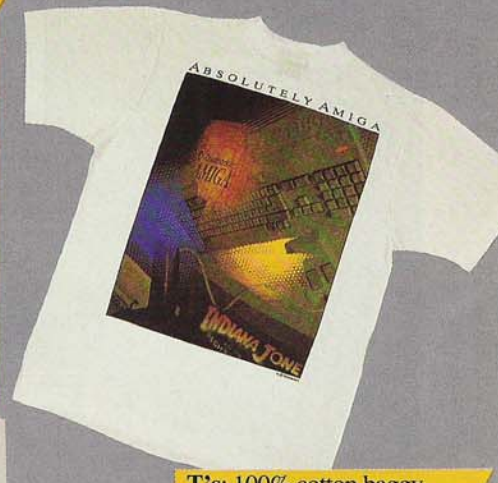
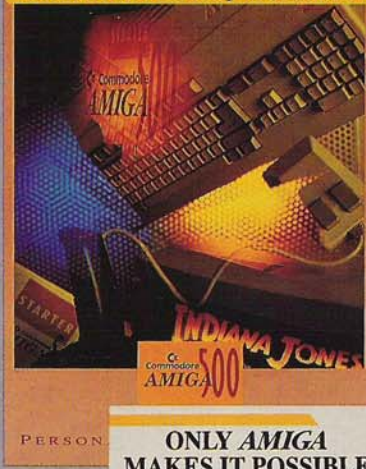
G E A R

PRIVATE COLLECTION

SWEAT: 100% Cotton with fleecy brushed inside. White with Amiga name on front, full colour print on the back. Washable. M/L/XL. Postpaid, each \$30.



POSTER: Classic Amiga poster printed full colour on heavy art paper. Ideal for wall or ceiling mounting. 762mm x 506mm. Comes in a tube. Postpaid, each \$5.



T's: 100% cotton baggy T shirt. White, with Amiga name on front, full colour print on back. Washable. Sizes M-L-XL. Postpaid, each \$20.

CAPS: U.S. Style peaked cap. In washable yellow cotton with Amiga insignia front. Adjusts to fit all head sizes. Postpaid, each \$12.50.



STICK IT! : New Amiga stickers. Self-adhesive vinyl. Goes on your board, bumper, case or anywhere. Postpaid, \$2.50 per set.



Now you can get into Amiga gear !

As well, you'll be helping some less fortunate kids, because 10% goes to the Autistic Association. Like the man says, only Amiga makes it possible. This is just the start - get into it !

USE THIS ORDER FORM

TO: Amiga Gear, C/- The Mailing House, P.O.Box 663, Artarmon NSW 2064.

Here's my order.

This is the Amiga Gear I want.....

Please PRINT all details clearly !

ITEM	SIZE	QTY	COST
AMIGA CAP (adjustable) \$12.50	—		
AMIGA SWEAT (M/L/XL) \$30.00			
AMIGA BAGGY T (M/L/XL) \$20.00			
AMIGA POSTER (762mm x 506mm) \$5.00	—		
AMIGA STICKER (297mm x 210mm) \$2.50	—		
(All items are postpaid)	TOTAL \$		

\$60

SPECIAL DEAL:

If you buy one of each (normally \$70) tick here and all you need to send us is \$60!

NAME _____

ADDRESS _____

P/Code _____

Payment by: Cheque MO Credit Card

CREDIT CARD DETAILS

Bankcard Visa Master American Express

Card No:

Expiry Date: _____

Name of card holder: _____

Signature of card holder: _____

**10%
GOES TO THE
AUTISTIC ASSOCIATION**

your synth into a tape recorder. Whatever you play on the synth will be 'recorded' into Amiga's memory and you can record more and more tracks - *Tiger Cub* allows 12 tracks plus a 'Conductor Track' - to 'overdub' them, and of course there are facilities to save it all to disk for replay later. Using a MIDI synth with *Tiger Cub* means that whatever music you play and record will be played back us-

Allocation during the loading procedure the only way to reset it is to first of all SAVE your work then reboot.

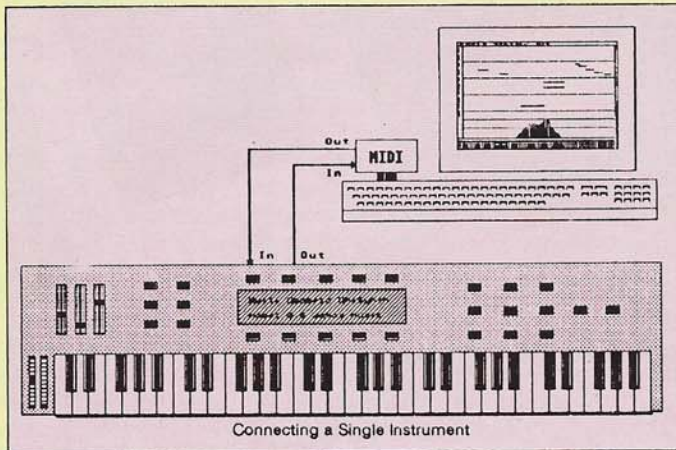
Let's look first at *Tiger Cub's* tape recorder screen, which is the screen that comes up when the program is loaded. The top two thirds is taken up with a listing of Tracks & Instruments plus Channel, Solo, Mute etc. It also has a useful section at the right where you may enter

set the time signature and the length of the song and this is done from the Project menu. Select 'New' here and enter 12 in the edit window then select 4/4. This will let us play a 12 bar blues which is a nice easy thing to start off with.

To help keep time there's a Metronome click of course, and I like to use *Tiger Cub's* 'Count In' feature as well. This is activated from the Utilities menu where you select 'Environment' which then lets you set the Count In setting. I like to use a four beat count in so I'd put the figure 4 in the window there (left click onto the existing figure, then enter 4 and press Return).

The simple tune printed here is one I've written for you to enter and use as a demo and when you're all set up and ready to start recording it with your synth just click onto the Record button (F2 is the keyboard equivalent). Go to the Quantize button at the bottom left hand corner of the tape recorder screen and toggle the arrows until you have an eighth note (or quaver) shown. This sets Quantization (Auto Correction) of the music as you're playing it in to that value and your notes will be suitably 'rounded off'. This is a very useful feature and *Tiger Cub* has several other ways of quantization in other areas of the program.

Next, when you're ready to start recording, click the Play button (or Space Bar). Start to play straight after the 4-beat



ing the synth's own sounds and voices. In later issues we'll be working without the MIDI synth by using the mouse to 'paint' notes onto the graphic editing screen's 'piano roll' display, which will be played back using Amiga's internal sounds. We'll also be discussing how to set up Instrument Libraries using IFF sounds from other sources.

Do make sure before you start that you have a blank formatted data disk ready to use for storing your creations before loading *Tiger Cub*. During loading you'll need to set the Memory Allocation on a requestor which comes up. This simply reserves the amount of memory for the number of notes to be recorded and the default setting is around 25000 'events' (MIDI notes). If you want to reserve more memory for your masterpiece then just move the slider up to change the amount.

All this ties in with Dr T's brilliant Multi Program Environment (MPE) which lets you have other programs such as Patch Editors in memory at the same time for changing around the sounds that you'll be working with. It's the old story: you can never have too much memory. I seem to get along OK with 1.5 meg on my A-1000 and have done some quite long multi track tunes without running into trouble. Once you've set the Memory

is playing to let you know exactly where you are in the song.

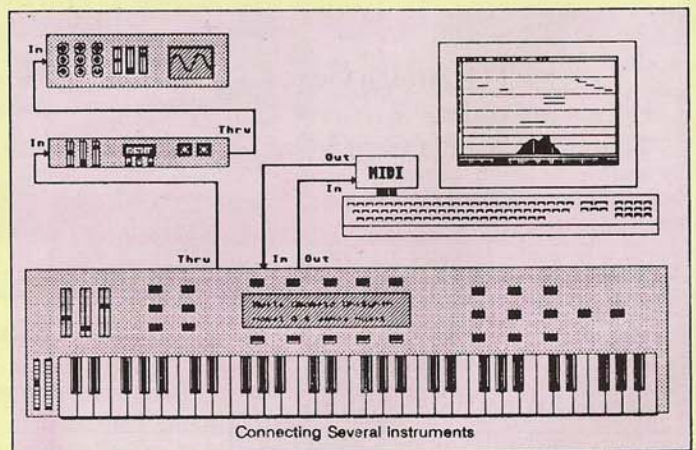
Various 'buttons' at left and right of these controls control a multitude of functions (Edit, MIDI Merge, Quantize etc) by clicking onto them with the mouse. The control panel works pretty much like a tape recorder in that it has Play & Record, Fast Forward and Rewind, & Stop and Pause buttons. These can be clicked on with the mouse or there are keyboard equivalents. These are well documented in the manual and there's an appendix at the back with a full listing of them. I found it useful to do an enlarged photocopy of these two pages and have it handy when working as a combination of keyboard commands and mouse clicks works best for me.

Having got this far it's time to start recording some music. The first step is to

comments (Melody Line, Bass Riff, Accompaniment etc) to tell just what's in each track. The bottom section has the 'tape recorder' controls in the centre as well as other info such as Metronome & Tempo and the all important Bar:Beat:Step display. This runs continuously

whilst the music

is playing to let you know exactly where you are in the song.



count-in with the walking boogie bass on the third line of the music. Check it if you wish by pressing the Play button to hear it play once through. Record the second track (the second line) which is the simple chord accompaniment by following the same procedure. If you foul up at any time during the recording just stop play-

continued on p54

FREE
postage
anywhere in
Australia

LOGICO

s . o . f . t . w . a . r . e

Marrickville Metro
Shopping Centre
Shop 3A / 36 Victoria Rd.
Marrickville NSW 2204
Telephone: (02) 519 5323

AMIGA

ARCADE

After the War	\$55
All Points Bulletin	\$45
Altered Beast	\$55
American Dreams	\$55
Balance of Power 1990	\$55
Battlehawk 1942	\$55
Battle Squadron	\$55
Battle Tech	\$55
Batman the Movie	\$45
Beverly Hills Cop	\$45
Black Tiger	\$45
Blood Money	\$55
Blood Wych	\$45
Cabal	\$45
Castle Master	\$55
Chase HQ	\$45
Commando	\$45
Continental Circus	\$39
Cosmic Pirate	\$45
Double Dragon II	\$50
Dr. Dooms Revenge	\$55
Dr Plummetts	\$45
Dragons Breath	\$65
Dragon Ninja	\$65
Dragon Force	\$65
Dragons Lair II	\$85
Drakkhen	\$55
Eskimo Games	\$45
Eye of Horus	\$55
F29 Retaliator	\$65
Fallen Angel	\$50
Fiendish Freddy	\$65
Ghostbusters II	\$45
Ghouls n Ghosts	\$45
Gretzky Hockey	\$65
Hard Drivin'	\$45
Heros Quest	\$55
Highway Patrol II	\$55
Hot Rod	\$55
Hunt for Red October	\$45
Italy 1990	\$55
Indiana Jones Last Crusade	\$45
Indian Jones Temple of Doom	\$65
It Came From the Desert	\$55
Keel the Thief	\$55
Leisure Suit Larry II	\$55
Maniac Mansion	\$45
Moonwalker	\$45
Millennium 2.2	\$45
New Zealand Story	\$55
Ninja Warriors	\$50
North & South	\$55
Operation Thunderbolt	\$45
Outrun	\$55
P47	\$45
Player Manager	\$45
Police Quest	\$55
Powerdrift	\$55
Powerdrome	\$45
Pro Tennis Tour	\$45
Rainbow Island	\$45
Rick Dangerous	\$45
Robo Cop	\$55
688 Attack Sub	\$37
Satari Guns	\$45
Scramble Spirits	\$45
Shadow of Beast	\$75
Shinobi	\$50
Sideshow	\$45
Silkworm	\$55
Skweek	\$45
Space Ace	\$79
Star Wars Trilogy	\$55
Stormlord	\$45
Strider	\$45
Stunt Car Racer	\$45
Super Wonder Boy	\$45
Sword of Sodan	\$55
Teenage Mutant Ninja Turtles	\$75
Thunderbirds	\$55
Tower of Babel	\$55
Turbo Outrun	\$45
Twin World	\$45
T.V. Sports Basketball	\$65
T.V. Sports Football	\$65
Warhead	\$55
Wild Streets	\$55
X-out	\$55
Xenon II	\$55
Xybots	\$45

BUSINESS

Can Do	179 00
Day By Day	55 00
Digal	115 00
Excellence	299 00
Home Accounts	85 00
Pagestream Fonts	55 00
Pen Pal	180 00
Phasar V4 0	119 00
Pro Page V1 3	385 00
Promise	45 00
Pro Text Amiga	185 00
Publishers Choice	189 00
Superbase Personal II	139 00
Superbase Professional V2 03	280 00
Superbase Professional V3 00	280 00
Works Platinum	215 00

EDUCATION

Animal Kingdom	55 00
Associatid	39 00
Decimal Dungeon	65 00
Fraction Action	65 00
Math Blaster Plus	65 00
Math Wizard	65 00
Mavis Beacon Teaches Typing	65 00
Memorise	39 00
Recognise Me	39 00
Shapes And Colors	39 00
Spellbound	55 00
Word Master	65 00

GRAPHICS

Animale 3D	240 00
Bgraphics	269 00
Comic Setter	135 00
Deluxe Paint III	229 00
Deluxe Print II	159 00
Deluxe Video III	159 00
Design 3D	130 00
Digi Paint V3 0	119 00
Express Paint 3 0	139 00
Fusion Paint	95 00
Photon Paint II	180 00
Printmaster Plus	55 00
Rotoscope	115 00

MUSIC

Dr. T's Copyist Pro	389 00
Instant Music	45 00
Midi Magic	199 00
Music X	269 00

**3x MEGA Hits in
one Big Package!!!**

1. Defender of the Crown
2. S.D.I.
3. King of Chicago

Retail : \$55

Formats: IBM & Amiga

COMMODORE 64/128

ARCADE

3D Pool	\$29
All Points Bulletin	\$29
Altered Beast	\$26
Aust. Rules Football	\$34
Ballistix	-
BattleTech	-
Batman the Movie	\$26
Beverly Hills Cop	\$29
Black Tiger	\$26
Cabal	\$26
Castle Master	\$29
Chase HQ	\$36
Chessmaster 2100	-
Double Dragon II	\$34
Dr Dooms Revenge	\$29
Dragon Spirit	-
Dragon Wars	\$39
Dynamite Dux	\$26
F-15 Strike Eagle	-
Ferrari Formula One	\$34
Ghostbusters II	\$26
Ghouls n Ghosts	\$26
Hot Rod	-
Hunt for Red October	\$26
Indiana Jones Last Crusade	\$26
Iron Lord	\$29
Italy 1990	\$25
Mean Streets	-
Moonwalker	\$26
New Zealand Story	\$26
Ninja Warriors	-
Omega	-
Operation Hormus	\$24
Oriental Games	\$29
Out of This World	\$29
P47	\$29
Pacmania	-
Paperboy	\$29
Phobia	-
Pipal Mania	\$29
Pirates	-
Pool of Radiance	-
Powerdrift	\$26
Project Stealth	-
Pro Tennis Tour	\$39
Questron II	-
Red Storm Rising	\$39
Robo Cop	-
Sim City	-
Star Trek	24
Stormlord	-
Stunt Car Racer	\$29
SuperStar Soccer	\$29
Turbo Outrun	\$26
T.V. Sports Footy	-
Wild Streets	\$29
World Tour Golf	\$29
X-Out	\$35
Xybots	\$29

CASS

Alien Addition	\$34
Animal Kingdom	\$39
Decimal Dungeon	\$35
Demolition Division	\$39
Fraction Action	\$42
Math Blaster	\$35
Minus Mission	\$39
Number Farm	\$35
Speed Reader II	\$39
Spell It	\$35
Spelling Wiz	\$45
Verb Viper	\$39
Word Attack	\$39
Word Invasion	\$35

DISK

Awardware	\$34	36 00
Masterpiece	\$35	57 00
Print Power	\$35	47 00
Printshop Graphic Library 1	\$35	39 00
Printshop Graphic Library 2	\$35	39 00
Printshop Graphic Library 3	\$35	39 00
Stop Press	\$35	75 00

AMSTRAD

CASS.	DISK
Altered Beast	\$26 \$35
Batman the Movie	\$26 \$39
Black Tiger	\$26 \$39
Bubble+	\$29 \$39
Cabal	\$26 \$39
Castle Master	\$29 \$39
Chase HQ	\$26 \$39
Dynamite Dux	\$26 \$39
Fighting Soccer	\$26 \$39
Ghouls n Ghosts	\$26 \$39
Gunship	\$39 \$45
Hard Drivin'	\$29 \$39
Hot Rod	- \$55
45 Knight Force	\$29 \$39
34 Microprose Soccer	\$39 \$45
45 Moonwalker	\$26 \$39
33 Navy Moves	\$19 \$29
54 Operation Thunderbolt	\$26 \$39
29 P47	\$29 \$39
29 Pipe Mania	\$29 \$39
39 Pop Up	\$29 \$39
39 Rainbow Island	\$26 \$39
35 Silkworm	- \$45
45 Super Wonder Boy	\$26 \$39
39 Turbo Outrun	\$26 \$39
29 Tusker	\$26 \$39
39 Wild Streets	\$29 \$39

ATARI ST

65 Battlehawks 1942	\$55
79 Battleships	\$29
39 Black Tiger	\$55
19 Blood Money	\$55
29 Blood Wych	\$55
29 Castle Master	\$55
57 Chase HQ	\$45
44 Drakkhen	\$55
89 Gretzky Hockey	\$65
55 Midwinter	\$65
75 Operation Thunderbolt	\$56
65 Space Ace	\$45
45 Wild Streets	\$55
79 Xenon II	\$55

IBM

75 Blood Money	\$55
65 Drakkhen Dual	\$75
65 F15 Strike Eagle 5.25	\$55
65 F15 Strike Eagle II	\$65
48 F19 Stealth Fighter	\$99
Full Metal Planete Dual	\$55
Gunship 5.25	\$55
M1 Tank Platoon	\$55
Pro Tennis Tour	\$45
Sword of the Samurai Dual	\$85

MAIL ORDER FORM Send To: LOGICO SHOP 3a Marrickville Shopping Centre 36 Victoria Rd. Marrickville NSW 2204

PROGRAM NAME	COMPUTER	CASSETTE/DISK	QUANTITY	PRICE

Method of payment: tick for Cheque Postal Order
 Tick for Bankcard Mastercard Visa Amex
 Credit Card No _____
 Valid from _____ Until end _____
 Name as per card _____
 Signature _____

Delivery to:
 Name _____
 Address _____
 P/code _____
 Telephone (____) _____
 Date Sent _____

TOTAL \$ _____
 POSTAL CHARGE FREE
 GRAND TOTAL \$ _____



Phone Orders
02-519-5323

JUST BECAUSE YOU DON'T SEE IT - DOESN'T MEAN WE DON'T HAVE IT !!

UNBEATABLE PRICES

ing and click the X-REC button at the right hand side and that track will be erased so that you can start over. If you record to the end of the track and then decide you don't like what you've just played then select 'Delete Track' from the Utilities menu and enter the track number to be erased.

Finally, record the lead line (the top line of the music) on top of the other two and have a listen to it all. Your tune should now sound like a Boogie Blues and in fact it's a good idea to Save it under that name before we go any further. This is done from the Project menu which brings up a File Requestor where you select 'Change Volume' to make the data disk in df1: the current disk then type 'Boogie Blues' in the 'File' slot and click onto 'Save' to do the job. The program will add .CUB to the name and create an icon to go with it too.

Having done all that we can go back to the song and play around with it some more now that we've got a copy of it safely stored.

Selecting 'Play Loop' or 'Auto Record' from the Play menu will make Boogie Blues repeat endlessly, which is why I wrote the last couple of bars the way they are. 'Play Loop' does just what you'd think, ie the music keeps playing until you click the Stop button. 'Auto Record' also plays continuously but 'Record' is switched on too so that when the music goes 'back to the top' you can start playing on the synth to overlay yet another track.

Having saved the original three track version you can keep on adding to it by playing more and more tracks, up to 12 in all. If you do create a really good version and it's worth saving then save it under a new name so as to keep the original as it is. We can then do some more work with it next time.

In future sessions I plan to look at:

- Printing music with QuickScore
- Graphic Editing
- Using Internal Sounds
- Setting up Instruments and Sound Libraries etc.

Interested readers may care to drop me a line if there are specific areas of *Tiger Cub* that they wish to see explored. Also if anyone wants a data disk with the Boogie Blues file on it, along with some of the Internal Sounds that we'll be covering later, then I'd be happy to provide it for \$5.00 to cover duplicating and mailing expenses.

Address any author correspondence to: PO BOX 371, MILLER, NSW 2168.

Till next time...

AMIGA PUBLIC DOMAIN SOFTWARE

Over 1200 disks to choose from

No subscription fees

No joining fees

No postage charges

Disks \$3 - \$4 - \$5 each

Send \$3 for catalogue disk

to

AMIGA PUBLIC DOMAIN CENTRE

PO Box 435, St Agnes SA 5097
Phone (08) 396 2163

NEW RELEASES

DESCRIPTION	Suggested Retail
AMIGA SOFTWARE - EDUCATION	
SESAME STREET TRIPLE PACK Letters For You, Numbers Count and Opposites Attract.	79.95
WHERE IN TIME IS Carmen San Diego	74.95
AMIGA SOFTWARE - ACCOUNTING PACKAGES	
PERSONAL FINANCE MANAGER	59.95
AMIGA SOFTWARE - LEISURE	
A-10 TANK KILLER	69.95
APPRENTICE	49.95
AWESOME (Inc. T-Shirt)	79.95
BACK TO THE FUTURE II	59.95
CAPTIVE	69.95
CHAOS STRIKES BACK	69.95
CHESSMASTER 2100	69.95
DINOWARS	59.95
DRAGONFLIGHT	79.95
F - 19 STEALTH FIGHTER	69.95
FIRE & FORGET II	64.95
INDY 500	59.95
KICK OFF 2	49.95
LEGEND OF FAERGHAIL	59.95
M - 1 TANK PLATOON	79.95
PARADROID	64.95
POWER PINBALL	59.95
PSYGNOSIS PACK 1: Baal, Menace and Ballistix	49.95
SAVAGE EMPIRE	69.95
SPELLBOUND	64.95
SUPREMACY	69.95
TEAM YANKEE	69.95
TORVAK THE WARRIOR	59.95
TURN IT	49.95
VAXINE	59.95
WAR JEEP	59.95
WHEELS OF FIRE COMPILATION: Hard Drivin, Chase HQ, Turbo Outrun & Powerdrift	74.95
WOLFPACK	69.95

Computermate Products (Australia) P/L.
P.O. Box C64, Mt. Kuring-Gai, N.S.W. 2080
Telephone: (02) 457 8388 Fax: (02) 457 8739

Technical Support: (02) 457 8548

Amiga 500 Turbo XT IBM EMULATOR

KCS Power PC Board Available Now

Look at these features:

- includes 1 Meg Amiga Ram + clock (value \$300)
- supports all Amiga in/outputs
- 3.3 times faster than XT Bridgeboard
- includes MS DOS 4.01 + shell and GW Basic
- free software updates
- 704K memory in MS DOS mode
- installs in 30 seconds!

Phone now for a detailed specification sheet
and the location of your nearest dealer

Official Distributor for KCS

Fonhof Computer Supplies

64 Cross Street, Baulkham Hills NSW 2153
Phone (02) 639 7718 Fax (02) 639 5995



**IF YOU THOUGHT WE
WERE HOT BEFORE, . . .**

. . . SEE US SIZZLE NOW!

SOFTWARE To Go is HOT. Our sizzling selection of products has become the talk of the town. We now have over 1000 software titles for Amiga, IBM and Commodore 64/128, a wide range of accessories and books together

with a selection of peripherals. All at RED HOT prices. So remember, when you're hot, you're hot. And when you're not, you're not shopping **SOFTWARE To Go**, Australia's premier mail order dealer.

Write or phone now for a free catalogue.



P.O. Box 5A
MT. KURING-GAI, NSW. 2080
PHONE: 02 - 457-8111 FAX: 02 - 457-8739

Authorised Amiga Dealer. MC VISA BANKCARD Accepted
SORRY, NO PERSONAL SHOPPERS

COMPUTERMATE™

NEW RELEASES

DESCRIPTION Suggested Retail

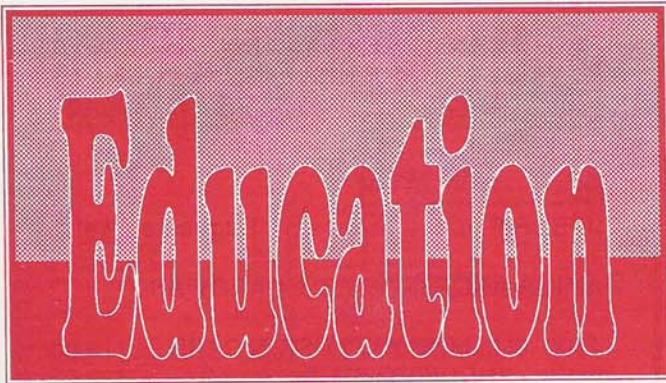
AMIGA ACCESSORIES & HARDWARE

A500 .5Mb MEM EXPANSION CARD	175.00
AUDIO ENGINEER PLUS.	499.00
Includes AUDIOMASTER III software	
DR. T'S PHANTOM (SMPTE Synch.)	449.00
SOUND EXPRESS	119.00
Stereo digital sound sampler	

AMIGA SOFTWARE - PRODUCTIVITY

AUDIO ENGINEER (Audiomaster III)	149.00
BABY: 100,000 word spellchecker	49.95
BROADCAST TITLER II (PAL)	399.00
CAN DO PRO-PAK	64.95
COMPUGRAPHIC	89.95
Decorative fonts for Pagestream and Pro-Page.	
Brush, Cooper Black and Letraset Review Shadow	
COMPUGRAPHIC DESIGNER FONTS	89.95
for Pagestream and Pro-Page. Bodoni Book, Microstyle Extended and Park Avenue	
COMPUGRAPHIC Publisher fonts	89.95
for Pagestream and Pro-Page. Garamond Antiqua, Futura Book II and Antique Olive	
COMPUGRAPHIC VIDEO FONTS	89.95
for Pagestream and Pro-Page. Futura II Bold, Clarendon Dom Casual	
GOLD DISK OFFICE	399.00
HI-SOFT BASIC EXTENSION	54.95
INTERFONT: Sculpt/Videoscape	169.00
MUSIC-X Junior	199.00
PRO VIDEO POST (PAL)	459.00
QUARTERBACK TOOLS	99.00
SUPER CARD AMI-II (Internal)	159.00
For A2000, A2500 & A3000 only	
SUPER CARD AMI-II 500	159.00
For A500/A1000	
T.V. SHOW V2.0 (PAL)	119.00
T.V. TEXT PROFESSIONAL (PAL)	189.00
YOUR FAMILY TREE V2.0	119.00

Distributed and Supported by:
Computermate Products (Australia) P/L.
P.O. Box C64, Mt. Kuring-Gai, N.S.W. 2080
Telephone: (02) 457 8388 Fax: (02) 457 8739
Technical Support: (02) 457 8548



Selecting the best time to introduce your young child to the computer is a more complex problem than you might think. Anne Glover explains.

One of the foremost aspects of introducing computing to young minds is ensuring it is done in the right environment.

If your computer is currently somewhere odd, like the kitchen, think about moving your computer to a more "user friendly" location before you sit Junior down at the keyboard. Next up, you'll need a good desk.

Do I hear you saying "What desk?" If you are currently operating your computer from a general workbench or moving it on and off the dining room table, NOW is the time to invest wisely in a true computer desk. From around \$100 you can purchase a reasonable two-level desk which will save many heartaches when that little person is using the computer.

Depending on the amount of space you have available, the two-level desks are probably about the best. They allow room for a monitor and a printer on the upper level, with the keyboard and disk drives on the second level within easy reach. They even generally have space for disk boxes and your ACAR magazines etc. down below.

As well as checking the size of your desk space also check the dimensions of your PC before buying your desk to ensure there is no over-hang from the keyboard. A little bit of over-hang can mean many accidents for your computer over the years.

Unless you are restricted for space, a narrow multi-level desk (PC "tree") is not

the ideal since they are primarily designed for an individual to work at on their own. Your young child will often want or need someone to work with side by side. An expensive ergonomically designed chair is not a necessity. In reality, with young children driving one of those fan-

tastic spinning varieties everyone and your computer will be in danger of being "Cowabunga-ed"!

A stable, basic chair that your child can get onto and off again without falling on his head (or worse still on your computer) is all that you need. A large cushion will boost his height in a more secure fashion than phone books, if he is tiny.

As sturdy and stable a desk and chair as possible, taking into account the child's height and reach and the dimensions of the computer, is all that you are looking for at this stage. Remember, you may sit still at the computer for hours at a time, but a young child may be up and down, around and about a dozen times in half an hour.

By the time a child can walk and talk fairly effectively, we expect him or her to have a reasonable degree of control over his or her arms and legs. However, those knees and elbows always seem to be collecting something. The reason for this is that their gross motor skills are not yet very precisely developed. Even the teenager with arms and legs growing at a fast pace will find the accuracy of their gross motor movements, at times, leave a lot to be desired. Clashes between growing children and PC's will be minimised if you look carefully at your setup before you begin.

Spending your first \$100-\$200 on furniture instead of software may be the best investment you could make for your peace of mind, as well as for your family's enjoyment and practical use of the computer.

Preparing yourself

Are you ready to introduce your child to the computer? A machine, that up until now, may have been exclusively your domain and dare I say it, almost as precious as your child, perhaps?

Are you ready for the times when

Junior is a bit rough with the hardware or accidentally knocks the keyboard for six? For the times when s/he asks "What does this button do" after pressing it sixteen times in quick succession. Or when s/he tries to see what happens if s/he presses all the buttons at once. Are you ready for the time s/he pulls one of the cables out, apologising with "I just wanted to see where it went to"?

During these trials always remember that curiosity in children is a wonderful thing, it must be fostered at all costs, for without curiosity children would learn very little.

The point at which you decide to introduce your child to the computer, is also the point where you commit yourself to the selection and purchase of appropriate software for your child.

As outlined in last month's article you don't need to spend a fortune on children's educational software if you select your pieces carefully. Your choice of software will be influenced greatly by your reasons for introducing your child to the PC in the first place. Your priorities will probably include a combination from the list below:

- (a) for educational purposes
- (b) to develop computer literacy
- (c) to accelerate personal development
- (d) to enjoy shared activities
- (e) for entertainment

The order in which you place the above priorities, should influence greatly your choice of software and the way in which you use your computer. Always keep your purpose in mind when selecting your programs.

Be prepared to give up a lot of your own computer time to the child. Initially, you will be working together. However, after a short period of time, the child may be working with a minimum of assistance and supervision. Try to remain involved to some degree, even if it is on a periodic basis, to be a part of this fascinating activity. If the PC allows us to spend "quality" time with our children and be a joyful part of their lives, we must all benefit.

What about the rest of the family?

Is the family ready for this step? Can the family budget afford any necessary furniture and the inevitable supply of software? Will other family members feel deprived because of the amount of time you will be spending with this new recruit? It is possible that they will be dis-

turbed by their reduced access to the computer, rather than by the reduction in time spent with you. Will younger children perceive an introduction to the PC for an older sibling, as an invitation to all comers? She may then feel left out, not understanding that her time will come. Being aware of potential problems is often enough to allow the instigation of subtle preventative measures.

The PC can hopefully, with a little forward planning, be used as a tool to accentuate family harmony and not to promote family discord.

What's the best age?

The age of the child and his or her level of intelligence will not necessarily be an accurate guide to the child's readiness to take advantage of the world of computers.

Personality and motivational levels will possibly provide a better guide. The child who is apprehensive towards changes in their world, may benefit by being introduced at a later date and in a more gradual fashion. However, if you have a hyperactive young person who is likely to fill the time while disks are being loaded, doing cartwheels or backward rolls too close to the computer, you

may be wise to postpone your introductions for some time, to preserve your own sanity.

Ideally the child should be able to wait patiently for short periods of time (or not so short periods if Mum or Dad make a few mistakes). S/he needs to have a reasonable level of concentration. S/he should be an effective listener and be able to follow a few simple directions e.g. "move the mouse forward" or even, "stop chewing the mouse"!

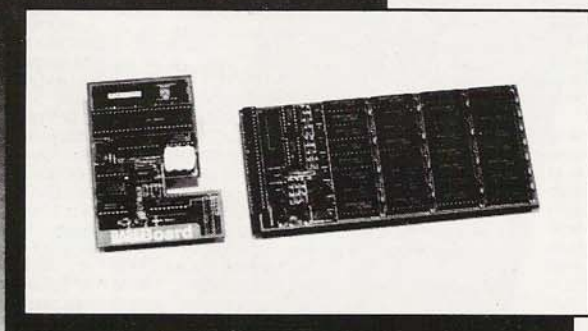
It may also be considered appropriate if the child can recognise their own name on the screen and be familiar with a few numbers. The child's skills do not need to be extensively developed, as their progress will accelerate after a short time on the computer. The child's degree of interest in the PC is also significant. If the child is intensely interested, you may wish to introduce him or her to this strange new world at an earlier date than you had previously planned. If on the other hand s/he is not particularly interested there is nothing to be gained and perhaps a lot to be lost if you push him or her too far when s/he is not yet ready. The readiness of the child will be closely linked with your priorities for introducing your child to the computer. The selec-

tion of software you make will also play a role in determining his or her readiness. If you intend to only use the PC for entertainment purposes, you may start the child at an earlier date than if your purpose is purely educational. In reality, some combination of both is desired and generally achieved

As the majority of parents initially list educational purposes as one of the prime reasons for introducing their child to the PC, they are generally looking for educational software in the first instance. The young child does not need to be able to read and write to experience the delights a computer can bring. There is currently an expanding range of suitable educational software for pre-school children. The popular Fun School II series for example, in the under-6 version has four activities out of the eight which are most suitable for non-readers. As the child will grow into the other activities later, it represents good value for your dollar and possibly an effective starting point.

If your family, your child and your computer setup is ready there is no need to wait until your child is literate, articulate and numerate, just go ahead and have lots of fun.

4 MEGABYTE MEMORY BOARD



4 MEGABYTE MEMORY BOARD FOR THE AMIGA 500

Mounts in A501 slot.
Battery backed-up clock.
100% software compatible.
User expandable from 512K.
Works with Fat and Fatter Agnus.
Easy plug-in installation.
One year warranty.

Expansion bus is left open for any
type of expansion device.

EXPANSION \$269.00 without
SYSTEMS memory

BASEBoard

Distributed and Supported in Australia by:
COMPUTERMATE
products (australia) pty. ltd.

9 High St., Mr. Kuring-Gai, N.S.W. 2080.
Ph: (02) 457 8388 Fax: (02) 457 8739
Technical Support Number: 457 8548



Interlink...

AMIGA

-- GAMES -- ARCADE

ALTERED BEAST	49.50
ANT HEADS	29.50
BATTLE SQUADRON	59.00
BATTLEHAWKS	59.00
BEVERLY HILLS COP	44.00
BLACK TIGER	49.50
BLOCK OUT	59.00
BUKOKAN	49.50
CABAL	59.00
CASTLE WARRIOR	69.00
CHASE H.Q.	59.00
CLOUD KINGDOM	59.50
COLONY	66.50
COMBO RACER	59.50
COMMANDO	49.00
CRACK DOWN	59.50
CREATURE	49.50
CYBERBALL	49.50
DOGS OF WAR	44.00
DOUBLE DRAGON II	59.00
DRAGON NINJA	59.00
DRAGON'S LAIR ENH	89.00
DRAGON STRIKE	CALL
E-MOTION	59.50
FACE OFF	39.00
FLIMBO'S QUEST	59.50
FLOOD	49.50
GHOSTBUSTERS II	59.00
GHOST'n GOBLINS	59.00
GRID RUNNER	39.50
GUNSHIP	49.00
HOT ROD	54.50
INDIANA JONES ARC	49.00
IT CAME FROM	
THE DESERT	59.00
JUMPIN' JACKSON	49.50
KID GLOVES	59.50
KILLING GAME SHOW	59.50
LIFE & DEATH	54.50
LORDS RISING SUN	69.00
LOST PATROL	59.50
MIDNIGHT RESISTANCE	59.50
NEW Y'K WARRIORS	49.50
NINJA SPIRIT	59.50
NINJA WARRIORS	54.00
NZ STORY	59.00
ONSLAUGHT	54.00
OP. THUND'RBOLT	59.00
PINBALL MAGIC	39.00
PIPE MANIA	59.50
POWERDRIFT	59.00
POWERDROME	59.00
PRECIOUS METAL	59.00
RAINBOW ISLANDS	49.00
REACH FOR STARS	49.00
RESOLUTION 101	59.50
RICK DANGEROUS	49.00
ROCK & ROLL	49.00
SH/BEAST II w/T-Shirt	79.50
SHUFFLEP'K CAFE	49.00
SILKWORM	49.00
SKWEEK	49.00
SPACE ACE	89.00
SPACE ROGUE	59.50
SPEEDBALL 2	CALL
STARLORD	59.50
STRIDER	59.00
STUNT CAR RACER	59.00
SUPER WONDERBOY	49.00
SWITCHBLADE	49.00
TEENAGE MUTANT NINJA	
TURTLES	59.50
TEST DRIVE II	49.00
T.D. II DISKS	39.00
THE JETSONS	49.00
THE MANHOLE	89.00
THE PLAGUE	54.50
TURRICAN	49.50
UNREAL	59.50

VENUS THE FLYTRAP	49.50	TV SP. BASEBALL	CALL
WILD STREETS	59.00	TV SP. BASKET'B'L	69.00
WINGS OF FURY	44.50	TV SP. FOOTBALL	69.00
XENOPHOB	49.00	TV SP. ULTIMATE DARTS	49.00
XENON 2	59.00	WORLD CUP SOCCER	49.50
X OUT	45.50		

STRATEGY

ARMADA	49.00	BANDIT KINGS OF A.C.	89.50
AUSTERLITZ	59.50	BARD'S TALE I/II/III	49.00
BAL. OF POWER 1990	59.00	BLOODWYCH	59.00
BATTLE COMMAND	CALL	CAPTIVE	59.50
BATTLE TANK GMY	89.50	CASTLE MASTER	59.50
BATTLE TANK ST'L	89.50	CHAMPIONS KRYNN	54.50
BORODINO	49.00	CHAOS STR'K BACK	CALL
CARRIER COMM'D	69.00	CHRONO QUEST II	69.50
CONFLICT EUROPE	59.00	CODENAME ICEMAN	59.50
COURTROOM	69.50	COLONELS BEQUEST	59.50
DEBUT	CALL	CORPORATION	59.50
FIRE BRIGADE	49.00	C'QUEST CAMELOT	59.50
FULL METAL PLNT	59.50	DRAGON'S BREATH	69.50
GENGHIS KHAN	79.00	DRAGONS FLAME	49.00
GOLD O' AMERICAS	49.00		
HERE WITH CLUES	44.50		
IMPERIUM	49.50		
KHALAAN	59.50		
MI TANK PLATOON	79.50		
MIDWINTER	59.50		
NORTH & SOUTH	59.00		
OIL IMPERIUM	59.00		

Thrill Of Winning 2

688 Attack Sub
Populous
Powerdrome
World Tour Golf
\$59.50

ADVENTURE

ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50
ANDROMEDA	59.50

BOMBER	49.50	OUTLINE FONTS	269.00
BOMBER MISSION	39.50	PAGESETTER II	179.00
F16 COMBAT PILOT	49.50	PAGESTREAM V2	395.00
F19 STEALTH F'TER	79.50	PAGESTR. FONTS ea.	54.00
F29 RETALIATOR	59.50	PAGESTREAM FORMS	54.50
FALCON	54.00	PRO PAGE 1.3	379.00
FALCON MISSION	49.00	PROF'L DRAW 2	359.00
FALCON MISSION 2	54.00	PUBLISH'R CHOICE	195.00
FLIGHT 'INTRUDER	CALL	SAXON PUBLISHER	595.00
THEIR FINEST HOUR	64.50	SUPERCLIPS (PP) ea	49.50
WINGS	69.50	TEMPLATES (PPage)	89.50

"INDOOR"

BATTLE CHESS	64.00
BRIDGE V6.0	59.00
CHESS CHAMP 2175	79.50
DLX STRIP POKER	59.00
D.S.P. DATA I/II/III	29.50
GIN/CRIBBAGE KING	59.50
SEXTIMATES	69.50
ULTIMATE CASINO	59.00
VEGAS GAMBLER	25.00

COMING SOON

(ORDER NOW)
HAWK
MICROPROSE INTERNAT-
SOCCER CHALLENGE
MONKEY ISLAND
SPEEDBALL 2

SPREADSH'S

ADVANTAGE	269.00
ANALYZE!	89.00
DG CALC	89.00
HAICALC	79.00
SUPERPLAN	119.00
TEMPlicity	59.50

-- BUSINESS --

BUDGETEER	79.00
DAY BY DAY	59.00
DESKTOP BUDGET	99.00
EASY LEDGERS	395.00
ELECTRONIC CASH	179.00
ELECTRONIC DEBT	229.00
GOLD DISK OFFICE	399.00
HOME ACCOUNTS	89.00
HOME FRONT	129.00
PERS. ACS PLUS	59.00

- LANGUAGES -

AC/BASIC	289.00
AMIGA VISION	195.00
AMOS (Pactronics)	125.00
AReXX	74.00
ARGASM	119.00
ASSEMBRO	159.00
AZTEC C PROF.	395.00
BENCH. MOD-2	279.00
CAN DO	195.00
DEVPACK 2.0	149.00
GFA BASIC +COMPL	139.00
HI-SOFT BASIC PRO	179.00
HI-SOFT EXTENSION	54.50
JFORTH PROF.	349.00
LATTICE C V5.2	395.00
LATTICE C++	499.00
TRUE BASIC	139.00

-- MUSIC --

AMAS	299.00
AUDIO MASTER III	149.00
BARS & PIPES	399.00
DELUXE MUSIC CS	99.00
DR T'S APPRENTICE	149.00
DR T'S COPYIST DTP	449.00
DR T'S TIGER CUB	119.00
MASTER SOUND	119.00
MASTER TRACKS	549.00
MUSIC X JUNIOR	199.00
PERFECT SOUND	189.00
QUARTET	99.00
SONIX PLUS 2	125.00
SOUND EXPRESS	119.00

-- UTILITIES --

A-MAX II	CALL
AMI ALIGNM'T KIT	69.50
CLI-MATE	69.00
CROSS DOS V4.0	59.50
DIGA!	109.00
DISK 2 DISK	59.00
DISK MECHANIC	119.00
DISKMASTER	74.00
DOCTOR AMI	59.50
DOS LAB	44.00
DOS 2 DOS	69.50
D.U.D.E	74.50
DUNLAP UTILITIES	99.50
FAT TRACKS	89.50
GP TERM	99.00
GRABBIT	59.00
KCS POWER BOARD	780.00 (IBM emulator + memory exp.)
LASER SCRIPT	49.00
MAC 2 DOS	199.00
MASTERING CLI	59.50
PIXEL SCRIPT	199.00
PROJECT D	74.00
QUATERBACK	89.00
QUART' B'K TOOLS	99.00
STARSOFT HD BACK	69.50
SUPERBACK	119.00
XCOPY + Hardware	109.00

- EDUCATION -

We also carry a large range of education software. Please call.

- We now carry the full GENUINE Commodore Amiga hardware range
- FREE POSTAGE of software anywhere in Australia
- FREE PRICELISTS
- FRIENDLY, KNOWLEDGABLE STAFF
- HUGE RANGE OF PRODUCTS for AMIGA, C64/128 and IBM PC
- STD FREE 008 Order line during business hours
- COMPLETE ONE-STOP AMIGA Shop
- Pre-Christmas special - EA's DELUXE SERIES REDUCED TO \$99.50 ea.

There's always ways to save at INTERLINK

OMEGA	69.00	DRAKKHEN	59.00
POPULOUS DATA	39.00	DUNGEON MASTER	59.00
PORTS OF CALL	49.00	ELVIRA	69.50
PRINCE OF PERSIA	59.50	HERO'S QUEST	59.50
RORKE'S DRIFT	54.50	HOUND SHADOW	59.00
SHERMAN M4	59.50	HUNT FOR RED OCT	59.00
SIM CITY	79.00	INDIANA JONES ADV	59.00
SIM CITY TERRAIN	39.00	KHALAAN	59.50
SUPREMACY	CALL	KING'S QUEST IV	59.50
TEAM YANKEE	69.50	KING'S QUEST TRIPLE	
UMS II	69.50	PACK I/II/III	84.50
WALL STREET	59.00	KNIGHTS OF CRYST	59.50
WARHEAD	59.50	LEIS. SUIT I/II (ea)	49.50
WATERLOO	59.00	LEIS. SUIT III	59.50

SPORTS

CYBERBALL	49.50	MIGHT & MAGIC II	59.50
DAYS OF THUNDER	CALL	MORTVILLE MAN.	39.00
FIGHTING SOCCER	59.00	OPERATION STEALTH	59.50
G. NORMAN GOLF	59.50	PIRATES	59.50
HARD BALL 2	59.50	POLICE QUEST I/II	59.00
HARLEY DAVIDSON	59.50	POOLS OF RADIANCE	54.50
HOCKEY SIMULATOR	49.50	SHOGUN	69.00
HONDA RVF	49.00	SIERRA HINT BOOKS	15.00
INDIANAPOLIS 500	CALL	SPACE QUEST I/II	49.00
I. NICKLAUS GOLF	59.00	SPACE QUEST III	59.00
KICK OFF II	59.50	THEME PARK MYST	59.50
KICK OFF P/LR/MGR	49.50	THRILL WINNING	59.50
MIC'L WRESTLING II	59.00	TIME TRAVELLER	59.00
O-P BASKETBALL	59.00	UMS	64.00
O-P HORSERACING	59.00	UMS SCENARIOS	29.00
PRO TENNIS	59.00	UNTOUCHABLES	59.00
Q8 TEAM RALLY	CALL	XENOMORPH	59.50
STREET ROD	49.50		
TENNIS CUP	39.50		
THE CYCLES	59.00		

FLIGHT SIMS

A10 TANK KILLER	69.50
-----------------	-------

TV SPORTS BASEBALL	
VEITTE	

----- WP -----

BECKERTEXT	135.00
CYGNUS ED PRO	139.00
EXCELLENCE2	299.00
GOLD DISK TYPE	79.50
KIND WORDS II	99.00
PEN PAL	189.00
PROTEXT	189.00
PROWRITE V3.0	189.00
PROWR. FONTS (ea)	59.50
SCRIBBLE PLAT.	89.50
TRANSCRIPT	89.50
WORDPERFECT V4.1	449.00
WORDPERFECT LIB	159.00

----- DATA BASE -----

DATA RETRIEVE	99.00
DATA RET. PRO	199.00
DBMAN V	399.00
FREELANCE	49.50
SUPERBASE	89.50
SUPERBASE 2	139.00
SUPERBASE PRO	299.00
SUPERBASE RTM	59.50
YOUR FAM. TREE v2	119.00

----- DTP -----

CITY DESK II	199.00
E-CLIPS (PPage c/art)	109.00
E-CLIPS VOL 2	109.00
GOLD DISK FONTS ea	89.50
KARA FONTS	79.00

PHASAR V4.0	99.00
SBA CASH	149.00
SBA EXTRA	199.00
SYSTEM 3	129.00
THE ACCOUNTANT	429.00
WORKS PLATINUM	195.00

-- GRAPHICS --

3D PROFESSIONAL	549.00
3D TEXT ANIMATOR	79.50
AEGIS GRAPH. ST'R	99.00
ANIMATION STUDIO	249.00
ART DEPARTMENT	129.00
BOARDMASTER PCB	149.00
COMIC SETTER	129.00
CREDIT TEXT SCROL	59.50
DELUXE PAINT II	99.50
DELUXE PHOTOLAB	99.50
DELUXE PRINT II	99.50
DELUXE VIDEO III	99.50
DESIGN 3-D	129.00
DIGI-MATE 3	59.50
DIGI-PAINT 3	119.00
DIGI-VIEW GOLD 4	269.00
DIGI-WORKS 3D	189.00
DIRECTOR	99.00
DIRECTOR TOOLKIT	59.00
ELAN PERFORMER 2	195.00
FLOOR PLAN CONST.	78.00
HAM IT UP II	64.50
IMAGINE	479.00
INTROCAD PLUS	179.00
LIGHTS,CAM,ACT	119.00
MODELLER 3D	119.00
MOVIESETTER	129.00
PAGE FLIPPER +FX	189.00

Your Software Warehouse

HARDWARE

CALL FOR PRICES

AMIGAS
MONITORS
STAR PRINTERS
EPSON PRINTERS
FLOPPY DRIVES
MEMORY BOARDS
HARD DRIVES
ACCELERATOR BOARDS
GVP RANGE
GENLOCKS
NETWORK CARDS

PC EMULATOR BOARDS

JOYSTICKS
MICE
LIGHT PENS
DRAWING TABLETS
HAND SCANNERS
FLATBED SCANNERS
3D GLASSES
DIGITISERS
FRAME GRABBERS
REMOVABLE HARDDISKS
TAPE BACKUP UNITS
SWITCH BOXES
MIDI BOXES
CABLES

FOR ALL ORDERS
OF AMIGA
SOFTWARE OVER
\$50 YOU WILL
RECEIVE
VOUCHERS
THAT ALLOW
YOU TO GET
FREE
AMIGA
SOFTWARE

C64/128

GAMES

BARBARIAN II 39.00
BARD'S TALE TRIL. 49.50
BATMAN MOVIE 39.00
BATTLE CHESS 44.00
CABAL 35.00
CHAMPS OF KRYNN 49.50
CHASE H.Q. 35.00
CIRCUS ATTRACT. 39.00
CURSE AZURE BONDS 34.50
DELIVERANCE 39.50
DOUBLE DRAGON II 39.00
E MOTION 39.50
ELVIRA 39.50
EYE OF HORUS 39.00
F14 TOMCAT 44.00
F15 STRIKE EAGLE 39.00
F16 COMBAT PILOT 39.00
FLIMBO'S QUEST 35.50
G. NORMAN GOLF 49.00
HARD DRIVIN' 39.00
HILLSFAR 34.50
HOT ROD 35.50
IRON LORD 49.00
KICK OFF II 39.50
KLAX 39.50
LAST NINJA II 35.00
LEONARDO 39.00
MIC'L WRESTLING 2 39.50
MIGHT & MAGIC 39.50
MIGHT & MAGIC II 39.50
MONOPOLY 39.00
NINJA SPIRIT 39.50
NZ STORY 35.00
POOLS OF RADIANCE 45.50
RAINBOW ISLANDS 39.50
REACH FOR STARS 49.00
SECRET OF THE SILVER BLADES 34.50
SKI OR DIE 29.50
STARLORD 39.00

STREET ROD 39.50
TEST DRIVE II 39.00
TURRICAN 35.50
TV SP. FOOTY 49.00
WALL STREET 39.00
WIZARDRY V 59.50
X OUT 35.50

PRODUCTIVITY

ACTION REPLAY VI 139.00
BLITZ 64 39.00
COBOL 64 59.00
CREATE A CALENDAR 34.50
ELECTRONIC CASH 89.00
FINAL CART III 129.00
FONTMASTER II 64 79.00
GEOCHART 39.50
GEOFILE 64 39.50
GEOPROGRAMMER 39.50
GEO PUBLISH 49.50
GEOS 64 59.50
GEOS 128 69.50
GEOS INT'L FONTS 39.50
HOME VIDEO PROD. 64.50
MINI OFFICE II 44.00
MUSIC CONST. SET 29.50
NEWSMAKER 128 59.00
PAPERCLIP III 99.50
PAPERCLIP PUB 54.00
POCKET SERIES (ea) 69.00
POWER CARTRIDGE 59.50
PRINTMASTER + 59.00
SUPERBASE 64 59.00
SUPERSCRIPT 64 59.00
SWIFTCALC 36.00
THE PRINT SHOP 74.00
TOP 20 TOOLS 39.50
VIDEO BASIC 64 59.00

EDUCATION

CARMEN SD (ea) 64.50
EASY LEARNING (ea) 25.00
FUN SCHOOL 2 (ea) 28.00
MAVIS BEACON 59.00
SPEED READER II 69.00

AMIGA

With nearly 1600 titles currently available it is impossible to list them all. If you want something you can't see then please ring. We aim to be your Number 1 choice, by being the No. 1 quality AMIGA dealer in Australia.

C64/128

We carry an extensive range and stock for this "everlasting" computer. Phone or write for your free C64/128 catalogue listing over 900 software items, as well as accessories.

IBM PC

We have over 1000 games and educational software products for your computer. Check out our free catalogue.

All prices and availability are subject to change without notice. Some items listed may not have arrived by press time. All software items are shipped surface mail within Australia FREE. All other items are subject to a delivery charge.

**WE WILL MATCH ANY
ADVERTISED SOFTWARE
PRICE IN THIS MAGAZINE**

(SPECIALS EXCEPTED - REMEMBER ALSO THAT WE DON'T CHARGE FREIGHT)

ACCESSORIES

DISKS
3.5" DSDD
AXIOM 19.00
MEMOREX 22.00
PRECISION 19.00
UNBRANDED 10.00
SKC 22.00
XIDEX 26.00
5.25" DSDD
MEMOREX 19.00
PRECISION 11.00
SKC 11.00
XIDEX 21.00

DISK BOXES

3.5" 80 19.00
3.5" 120 22.00
BANX 80 25.00
5.25" 100 18.00
5.25" 140 25.00

BOOKS

Over 100 titles for the AMIGA and the C64/128, including the complete ABACUS range for the AMIGA.

RIBBONS

We carry all popular dot matrix printer ribbons.

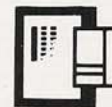
With EVERY order we'll give you our FREE PriceList. For the AMIGA we have a special PriceList, a 20-page Magazine full of reviews, articles and general snippets of interest. We think it's great reading, and it's FREE.

Your Software Warehouse!

ORDER FORM

Product Name	Computer	Price	Qty

Name _____
Address _____
Daytime Phone (____) _____
Cheque Money Order Visa Bankcard Mastercard
Full Card No _____
Expiry Date _____
Signature _____



ORDER NOW

STD FREE ORDER LINE
008 020 633
(Orders Only - Business Hours Only)

24 HOUR ORDERING LINE
(Answering Machine After Hours)
(06) 293-2233

All Queries (06) 293-2233

FAX **(06) 293-1438**

Unit 2, 216 Cowlshaw Street
Tuggeranong Town Centre

INTERLINK
SOFTWARE PTY. LTD.

SUPER STORE

UNIT 2, 216 COWLSHAW STREET,
TUGGERANONG TOWN CENTRE

Picture Book

by Anne Glover

If you are looking for a piece of software for primary school aged children, *Picture Book* may be ideal. It allows a child to write a story and compile an appropriate picture in a very creative way.

The *Picture Book* screen is divided into two windows. The top window is set aside for the picture. The lower window is for the story. The child may initially select a background scene that is appropriate for the story they have planned.

Picture Book has 22 scenes to choose from. The range includes a cave, the city

modified or duplicated and combined in a multitude of ways over a large range of variable backgrounds.

If you require even further variety, or if like me you find it difficult to design your own objects, Satchel have released a *Picture Book Companion* disk. The companion has over 100 new objects and eight new scenes to work with.

Story

Picture Book includes a simple but effective word processor that allows the child to type in a story at the bottom of the screen. six lines are available, allowing enough space for approximately 50 words per page. A story can be up to 20 pages long. If however, a child wishes to only write a few words, a simple click with the mouse allows the text to be centred on the line.

The program has some other useful

of transferring of disks to get it up and running. The Companion disk may be useful at a later date to stimulate some renewed interest in the program, when it is a few years old.

This program helps a child to become very familiar with the PC. In completing one page of a story, the mouse and the keyboard will receive extensive use. The screen edit function is a simple drawing program in its own right. As well as free hand drawings, circles, ellipses, boxes and straight lines can be used. The mouse is used to change colours. Cut, paste, zoom, undo and fill functions are included. *Picture Book* is a program with a huge potential.

It must be mentioned that the graphic quality in *Picture Book* is not quite up to the standard that Amiga users have become used to. However children will still be very happy with the appearance of their pictures.

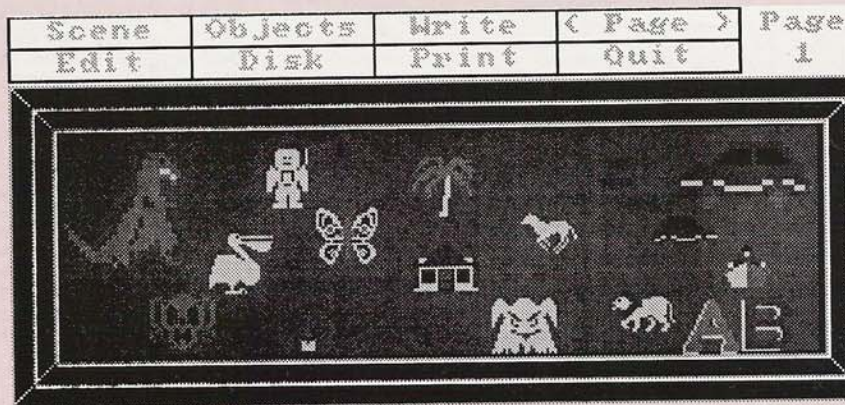
Picture Book is certainly a child directed program. It will be equally suitable for a child just starting to read and write as it is for one who is quite competent in these areas. The child decides what to do and how to do it, there are no wrong answers. Children should find this program stimulating and exciting, it will grow with your child and is a lot of fun to use. With a little imagination the possibilities are endless.

Applications

Picture Book is a useful program for use in the classroom or at home. Teachers and/or parents could use the program to assist children in many areas. When a child uses *Picture Book* to design stories a huge number of skills will be stimulated to develop. The program can be used in other ways. Stories could be placed on the disk to emphasise particular areas. Word groups that a child is currently studying, or having trouble with, could be used. Spelling lists could even be incorporated into the work. Possible options could even be supplied below.

Don't, however lose the child directed nature of this program by making the child jump through hoops. Children who are poorly motivated writers or who find reading a chore may gain substantially from this program. Highly motivated children will also benefit. It is fun to use and the children can immediately see the results of their work.

Some children may enjoy writing stories for younger children or for their friends. They could have fun taking turns to produce a page each, trying to keep



and a haunted house. The child may make modifications to these scenes by utilizing an edit function, or they may even design their own background. One or more objects are then chosen to be placed in the scene to illustrate the story. The child is not restricted to just one or two objects, over a dozen can easily be placed on the scene if the child wishes.

Picture Book has over 200 objects to choose from. These include cars and planes, animals and insects, dinosaurs, the letters of the alphabet and numerals. The same object can be placed onto the screen in a number of places (to create four ducks for example). The objects can be one of two sizes-(large or small,) to illustrate family groups or indicate depth in a scene. The objects can also be changed or a child may design their own. The range of potential pictures that can be developed as a result, must be enormous. Over 200 objects that can be

features, such as allowing a page to be duplicated then making minor changes to the picture as the story progresses. Pages can be easily swapped around, erased and redone or deleted with the page numbers automatically renumbered. The story can of course, be saved to be enjoyed at a later date or to allow future developments.

A print function allows a reliable reproduction to be made on paper. Children often like to see the results of their work in their own hands. They can then show off their creations to Grandma or to their friends. Once it is printed, the story can be made up to resemble a "real" book and be used as one.

Picture Book is extremely easy to use. A child who can read and write will have no trouble operating this program. Even younger children will enjoy using it with your assistance. The *Picture Book Companion* is not so user friendly, it requires a lot

the thread of the story intact. Issues or problems the child is facing or soon to be facing could be the topics of stories, allowing them to think about and be prepared for a future reality. The possibilities and the benefits are limitless. This is an excellent program for primary school aged children.

Conclusion

Picture Book is easy and fun to use. It introduces the child to the keyboard as well as the mouse. It may help children develop a love for reading, writing and drawing and in the process gain a huge number of skills. It is child centred and child directed.

Picture Book is well worth buying and is good value for your money if you don't already own a similar program. *Picture Book Companion* is not essential, but may be worth buying at a later date. The prices for *Picture Book* and *Picture Book Companion* are \$50 and \$40 respectively. They are available in both C64 and Amiga versions and are produced and distributed by Satchel (South Australian Department of Education) phone (08) 243-5559.

MAILSOFT

A500 512 RAM Expander (with clock)	\$129.00
A500 External slim line disk drive	\$155.00
M-4 Amiga mouse	\$ 67.00
3.5" Double sided / double density disks	\$ 13.00
5.25" Double sided / double density disks	\$ 6.50

We also carry a very large range of software & hardware for the Amiga, Commodore 64/128, IBM's Atari ST and Atari XL. Great prices on all products !!!

You will find it very hard to beat a **MAILSOFT** price because we want to be the number one mail order dealer.

We don't charge freight on any items, not even disk boxes.

So don't wait any longer, give us a call today and save yourself a small fortune on all your computer needs.

Special offer, buy any software product worth \$30.00 or more and receive a free game for any of the computers listed above.

(Offer good for November only)

Bankcard /Mastercard & Cheque accepted

Mailsoft Pty Ltd

PO Box 81

Balgowlah NSW 2093

Tel: (02) 977 3000 Fax: (02) 977 2996

New Release!

Version 6

The first in a new series of integrated C64/C128 hardware products from CMD

JiffyDOS

Give your system a new lease on life and the power to compete with today's newer, more expensive magazines

- Ultrafast multi line serial technology. Enables JiffyDOS to outperform cartridges, Back Roms, Turbo Roms and Parallel Systems - without any of the disadvantages.
- Speeds up all disk operations Load, Save, Format, Scratch, Validate, access PRG, SEQ, REL. USR \$ direct access files, up to 15 times faster!
- 100% compatible - or your money back. Guaranteed to work with all your hardware and software, including copy-protected commercial programs.
- Uses no ports, memory or extra cabling. The JiffyDOS Roms upgrade your computer and drive(s) internally for maximum speed and compatibility.
- Easy installation. No electronics experience or special tools required.
- Supports C64, 64C, SX64, C128, C128D, 1541, 1541C, 1541-II, 1571, 1581 and more.
- Can be completely switched out. If ever necessary, the flip of a switch returns you to a 100% stock configuration - without resetting or powering down. Built-in DOS Wedge. Plus 17 additional commands and convenience features. including file copier, screen dump, directory menu, and single-key load/save/scratch.

Available for C64, 64C, SX-64, C-128 and C-128D (JiffyDOS/128 speeds up both 64 and 128 modes), and 1541, 1541C, 1541II, 1571, 1581, FSD-1&2, MSD SD-1&2, Excel 2001, Enhancer 2000, Amtech, Swan, Indus & Bluechip disk drives. System includes ROMS for computer and 1 disk drive, stock/JiffyDOS switching system, illustrated installation instructions, User's Manual and Money-Back Guarantee.

RETAIL PRICE LIST

ITEM	DESCRIPTION	RETAIL
JIFFY DOS 64 SYSTEM	SPEED ENHANCEMENT SYSTEM FOR C64	\$99.00
JIFFY DOS 128 SYSTEM	SPEED ENHANCEMENT SYSTEM FOR 128	\$129.00
JIFFY DOS ADDIT'NAL ROMS	ADDITIONAL KERNEL/DRIVE ROMS FOR J/DOS	\$50.00
POWER CARTRIDGE	PROGRAMMING TOOL FOR C64	\$49.95
TURBOMENU CARTRIDGE	FAST LOAD CARTRIDGE C64/128	\$44.95
PARALLEL CABLE 1541	1541 PARALLEL CABLE	\$32.95
PARALLEL CABLE 1571	1571 " " " "	\$32.95
RESET 64	RESET CARTRIDGE C64	\$14.95
C.M.D. 20MB DRIVE	20 mb HARD DRIVE(SUIT 64/128 ONLY)	ENQUIRE
C.M.D. 40mb DRIVE	40 mb " " " "	"
C.M.D. 100mb DRIVE	100mb " " " "	"
DRIVE DOCTOR	DRIVE ALIGNMENT KIT FOR 1541/1571	\$42.95
DATASETTE DOCTOR	DATASETTE ALIGNMENT KIT FOR C64	\$29.95
DOCTOR CARTRIDGE	DIAGNOSTIC CARTRIDGE FOR C64	\$54.95
EXPERT CARTRIDGE 3.2R	BACK-UP CARTRIDGE (MANY FEATURES)	\$115.00
EXPERT V4.1R DISK	ENHANCEMENT DISK FOR ABOVE	\$29.95
AMIGA STEREO DIGITISER	SOUND SAMPLER A500/2000	\$110.00
AMIGA MINI-AMP (LESS PSU AND SPEAKERS	PERFECT SOUND BOOSTER FOR COMPUTERS	\$105.00
PRINTER ADAPTOR	PRINTER ADAPTOR FOR STEREO DIGITISER	\$49.50
BMC CORDLESS MOUSE	INFRA-RED CORDLESS MOUSE (AVAIL FOR AMIGA/IBM/ATARI/APPLE	\$149.00
AMIGA ACTION REPLAY	FREEZER-UTILITY CARTRIDGE FOR AMIGA	\$199.00
A500 PC EMULATOR	MAKE YOUR A500 MS DOS COMPATIBLE	ASK
	NOW AVAILABLE	
AMIGA KICKSTART	KICKSTART SWITCH 1.2/1.3 WB	
	" " BOARD ONLY	\$57.00
	" " 1.2 WB INSTALLED	\$89.00
	" " 1.3 WB INSTALLED	\$99.00
AMIGA MID-INTERFACE	MUSICAL DIGITAL INTERFACE FOR A500	\$120.00

CALL US FOR ANY SOFTWARE/HARDWARE REQUIREMENT

BANKCARD * VISA * MASTERCARD
and all Major Credit Cards

Most orders are despatched within 48 hours, but please allow up to 14 days for difficult delivery

HPD Pty Ltd, 5-7 Railway Terrace, Dry Creek, SA 5094
PO Box 121, Dry Creek, SA 5094
Phone: (08) 349 8486 Fax (08) 349 4667



Phone:
(02) 979 5833
Fax:
(02) 979 6629

WE LOVE

■ If you're tired of the spot where you purchase your computer software &

GAMES

RUNOUT SPECIALS !!

ARRGH - SPECIAL	\$39.00
BATMAN - CAPE CRUSADER	\$45.00
BATMAN - THE MOVIE	\$45.00
CHICAGO 90 - SPECIAL	\$45.00
CONTINENTAL CIRCUS - CAR GAME	\$39.00
DR. DOOMS REVENGE - SPECIAL	\$45.00
F.O.F.T. - SPECIAL	\$55.95
FIENDISH FREDDY - CIRCUS GAME	\$49.00
FUSION - SPECIAL	\$35.00
KLAX - SPECIAL	\$39.95
NEW ZEALAND STORY - SPECIAL	\$49.95
POWEDROME - SPECIAL	\$39.00
QUADRALIEN - SPECIAL	\$55.95
RAINBOW ISLANDS - SPECIAL	\$49.95
RED LIGHTNING - SPECIAL	\$45.00
S.D.I. - Cinemaware (SPECIAL)	\$49.95
STAR COMMAND - SPECIAL	\$35.00
STARRAY - SPECIAL	\$39.00
TOOBIN - SPECIAL - HI BERNIE	\$39.00
VOYAGER - SPECIAL	\$45.95
XENON II - SPECIAL	\$55.00
XYBOTS - SPECIAL	\$39.00
ZORK ZERO - SPECIAL	\$59.95
3-D POOL	\$49.95
5TH GEAR	\$39.95
688 ATTACK SUB	\$45.95
A.P.B.	\$49.95
ACCOLADE COMPILATION	\$59.95
ACTION FIGHTER	\$69.95
ADVENTURE PAK - COMP-ECP (4IN1)	\$59.95
ALL DOGS GO TO HEAVEN	\$69.95

NEW & HOT . . .

F-19	\$89.95
GIFT PACK-COMPILATION	\$69.95
BREACH 2 - NEW	\$59.95
MIDNIGHT RESISTANCE	\$59.95
RORKES DRIFT - NEW	\$59.95
SSI BLOCKBUSTER COMP PACK-ECP	\$59.95
TIE BREAKS - TENNIS	\$59.95

ALTERED BEASTS	\$59.95
AMERICAN DREAMS	\$59.95
AMIGA CHAMPIONS - COMPILATION	\$59.95
AMOS GAME CREATOR	\$125.00
ANARCHY	\$59.95
AQUANAUT	\$89.95
ARMADA	\$49.95
ARTHUR - QUEST FOR EXCALIBUR	\$59.95
ASTERIX -	\$49.95
ASTRO MARINE CORPS	\$69.95
BARDS TALE 2	\$49.95
BATTLE CHESS	\$61.95
BATTLE SQUADRON	\$59.95
BATTLE VALLEY	\$49.95
BATTLESHIPS	\$19.95
BEACH VOLLEY BALL	\$49.95
BERLIN - EAST V WEST	\$59.95
BERMUDA PROJECT	\$59.95
BEVERLY HILLS COP	\$49.95
BIO CHALLENGE	\$49.95
BLACK TIGER	\$49.95
BLUE ANGEL 69	\$49.95
BLUE ANGELS FLIGHT SIM	\$59.95
BORODINO	\$49.95
BRIDGE PLAYER	\$59.95
BUBBLE +	\$49.95
BUBBLE BOBBLE - 2 CAN.PLAY	\$59.95
BUDOKAN	\$49.95
BUFFALO BILLS RODEO	\$59.95
CABAL	\$49.95
CAMELOT (SIERRA)	\$59.95
CASINO GAMBLING TRUMP CASTLE	\$59.95
CASTLE MASTER	\$39.95
CASTLE WARRIOR	\$69.95
CHAMPIONS OF KRYNN	\$54.95

CHARIOTS OF WRATH	\$49.95
CHASE HQ - Great with a zoomer js	\$49.95
CHESS CHAMPION 2175	\$79.95
CHESS PLAYER 2150	\$69.95
CHRONO QUEST II	\$79.95
CODENAME ICE MAN (SIERRA)	\$59.95
COLORADO	\$69.95
COMMANDOS	\$59.95
CRAZY SHOT - USES GUN/MOUSE	\$49.95
CREATURE USES GUN/MOUSE	\$49.95
CRIBBAGE & GIN KING	\$59.95
CYBERBALL	\$49.95
D.R.A.G.O.N. FORCE	\$69.95
DANGER FREAK	\$61.95
DARIUS +	\$49.95
DARK CENTURY	\$59.95
DARK SIDE	\$49.95
DAY OF THE PHAROAH	\$54.95
DAY OF THE VIPER	\$59.95
DEJA VU II	\$69.95
DEMONS TOMB	\$54.95
DEMONS WINTER	\$45.95
DISTANT SUNS	\$79.95
DOUBLE DRAGON II	\$54.95
DR PLUMMETS HOUSE OF FLUX	\$49.95
DR. DOOMS REVENGE	\$54.95
DRAGON OF FLAME - AD & D	\$45.95
DRAGON SPIRIT - SPECIAL	\$39.00
DRAGONS BREATH	\$79.95
DRAGONS LAIR II	\$89.95
DRAKKEN	\$59.95
DREAM ZONE	\$39.95
DRIVING FORCE	\$59.95
DUNGEON MASTER 1 MEG SPECIFY	\$61.95
DUNGEON MASTERS ASSISTANT	\$45.95
DYNAMITE DUXI	\$59.95
DYNASTY WARS	\$59.95
DYTER 07	\$59.95
ELITE GAMES PACK VOL 1	\$49.95
EMPEROR OF THE MINES	\$49.95
ESCAPE - From planet robot monsters	\$49.95
EUROPEAN DREAMS - COMPILATION	\$59.95
EXTRA TIME - FOR KICKOFF	\$59.95
F-16 FALCON	\$59.95
F-19 STEALTH FIGHTER - IN STOCK??	PHONE US
F29 RETALIATOR	\$59.95
FA/18 INTERCEPTOR	\$45.95
FALCON MISSION DISK	\$49.95
FAST BREAK	\$49.95
FERRARI FORMULA ONE	\$45.95
FIGHTER BOMBER HOT!!	\$49.95
FIGHTER BOMBER MISSION DISK NEW	\$59.95
FIRE & BRIMSTONE	\$59.95
FIRE BRIGADE	\$49.95
FIRST CONTACT	\$49.95
FORGOTTEN WORLDS	\$49.95
FULL METAL PLANETE	\$59.95
FUTURE DREAMS	\$59.95
GARFIELDS WINTER TALE	\$49.95
GHOSTBUSTERS II	\$49.95
GHOSTS & GOBLINS - Great conversion	\$59.95
GOLDRUSH - (Sierra)	\$59.00
GRAND NATIONAL (Horses)	\$49.95
HARD DRIVIN'	\$49.95
HARLEY DAVIDSON BIKES	\$59.95
HEATWAVE (Boat racing)	\$59.95
HERO'S QUEST	\$59.95
HEROES COMPILATION PACK	\$59.95
HEWSONS PREMIER COLLECTION	\$49.95
HIGHWAY PATROL II	\$59.95
HILLSFAR - DUNGEONS & DRAGONS	\$45.95
HOYLES SOLITAIRE VOL 2	\$69.95
HOYLES SOLITAIRE VOL 1	\$59.95
HUNT FOR RED OCTOBER	\$44.95
I LUDICRUS	\$59.95
IKARI WARRIORS	\$19.95
IMPERIUM	\$49.95
INDIANA JONES - Graphic Adventure	\$69.95
INTERPHASE	\$59.95
IRON LORD	\$59.95
IT CAME FROM THE DESERT	\$54.95
ITALY 1990 Great soccer	\$59.95
IVANHOE	\$59.95
JACK NICKLAUS GOLF	\$59.95

JUMPING JACKSON	\$49.95
KEEP THE THIEF	\$49.95
KELLY X	\$19.95
KENNY DALGLISH SOCCER	\$49.95
KHALAAN	\$59.95
KID GLOVES	\$69.95
KINGS QUEST I	\$44.95
KINGS QUEST II	\$44.95
KINGS QUEST III	\$44.95
KONIX SPEEDKING JOYSTICK - GREAT	\$39.95
LAST NINJA 2 - THE VERY LAST! (NEW)	\$59.95
LEISURE SUIT LARRY	\$52.95
LEISURE SUIT LARRY II	\$52.95
LEISURE SUIT LARRY III	\$79.95
LICENSE TO KILL	\$49.95
LITTLE COMPUTER PEOPLE	\$19.95
LOMBARD RALLY	\$59.95
LORDS OF THE RISING SUN	\$69.95
LOST DUTCHMAN'S MINE	\$69.95
MANHUNTER - NEW YORK (Sierra)	\$49.95
MANHUNTER 2 (San Francisco)	\$49.95
MANIAC MANSION	\$61.95
MATRIX MARAUDERS - HI ROBYN	\$59.95
MAYDAY SQUAD	\$49.95
MICROPROSE SOCCER	\$59.95
MIDWINTER	\$79.95
MILLENNIUM 2.2	\$52.95
MORTVILLE MANOR	\$39.95
MOTORBIKE MADNESS	\$19.95
MR. HELI	\$59.95
MURDER ON THE ATLANTIC	\$49.95
NAVY MOVES	\$39.95
NEVERMIND	\$54.95
NINJA WARRIORS	\$54.95
NUCLEAR WAR	\$49.95
OIL EMPORIUM	\$54.95
OMEGA	\$59.95
ONSLAUGHT	\$49.95
OOZE	\$49.95
OVERRUN	\$49.95
P47	\$59.95
PAPERBOY	\$49.95
PARIS-DAKAR CAR RALLY GAME	\$59.95
PERSIAN GULF INFERNO	\$69.95
PHANTASM	\$29.95
PHASER GUN - SPECIAL	\$39.95
PICTIONARY	\$45.95
PINBALL MAGIC	\$39.95
PIPE MANIA	\$59.95
PIRATES - Microprose - TREV SAYS HOT!	\$59.95
POLICE QUEST	\$61.95
POLICE QUEST 2	\$79.95
POOL	\$19.95
POPULOUS DATA DISK	\$29.95
PORTS OF CALL - STILL HOT!	\$39.95
POWERDRIFT	\$59.95
PREMIER COLLECTION - COMPILATION	\$49.95
PRISON	\$49.95
PRO TENNIS TOUR - GREAT GAME	\$49.95
PROJECT TYPE	\$45.95
PUFFY'S SAGA	\$59.95
PURPLE SATIN DAY	\$52.95
PYSCHO	\$49.95
QUARTZ	\$49.95
REALM OF THE TROLLS	\$61.95
RESOLUTION 101 - Days of thunder??	\$59.95
RICK DANGEROUS	\$49.95
ROADWARS	\$19.95
ROMANCE OF 3 KINGDOMS	\$99.95
RVF HONDA	\$49.95
SAFARI GUNS	\$49.95
SCRAMBLE SPIRITS	\$49.95
SECOND FRONT	\$59.95
SHADOW OF THE BEAST	\$59.95
SHADOW WARRIOR - NINJA STUFF	\$59.95
SHADOWGATE	\$69.95
SHERMAN M4	\$59.95
SHINOBI	\$54.95
SIDESHOW - with munchies needs gun	\$49.95
SILENT SERVICE II COMING SOON!	\$CALL
SIM CITY Mega HOT!!!	\$84.95
SIM CITY TERRAIN EDITOR	\$34.95
SIR FRED THE LEGEND	\$59.95
SKATE OF THE ART	\$69.95

AMIGAS



Phone:
(02) 979 5833
Fax:
(02) 979 6629

hardware, then give the Hard Disk Cafe a try... Only Amiga Makes It Possible!

GAMES..

SKIDOO	\$39.95
SKWEEK	\$49.95
SKYCHASE	\$52.95
SLEEPING GODS LIE	\$69.95
SOLITAIRE - VOL 1 SEA HAVEN	\$39.95
SOLITAIRE - VOL 2 CALCULATION	\$39.95
SOLITAIRE - VOL 3 ACCORDION	\$39.95
SPACE ACE - SPECIAL	\$79.95
SPACE CONQUEST	\$49.95
SPACE QUEST	\$44.95
SPACE QUEST II	\$42.95
SPACE QUEST III	\$59.95
SPACE RACER	\$49.95
SPACE SCHOOL	\$39.95
STAR BREAKER	\$49.95
STAR CURSOR J/S - 3 YR GUARANTEE	\$54.95
STAR RAID	\$49.95
STAR WARS TRILOGY	\$59.95
STEEL	\$49.95
STELLAR CRUSADE	\$45.95
STREET ROD - NEW	\$49.95
STRYX	\$54.95
SUPERMAN - MAN OF STEEL	\$49.95
SUPERMAN - NEW	\$49.95
SWORDS OF TWILIGHT	\$45.95
TARGHAN	\$44.95
TENNIS CUP	\$49.95
THE 3RD COURIER	\$59.95
THE CHAMP	\$59.95
THE COLONELS BEQUEST	\$59.95
THE CYCLES	\$59.95
THE DAY OF THE PHAROH	\$54.95
THE FOOL'S ERRAND	\$84.95
THE HOUND OF SHADOW	\$49.95
THE MUNSTERS	\$49.95
THE STORY SO FAR	\$49.95

AMIGA 3000/40 HD - RED HOT
AMIGA 3000/100 HD - WHITE HOT
AMIGA VISION INCLUDED FREE
RAM CHIPS AVAILABLE FOR
A3000
BOTH ZIPPS & 256X4

THE STORY SO FAR VOL 3	\$49.95
THE TOYETTES	\$49.95
THEIR FINEST HOUR	\$59.95
THEME PARK MYSTERY	\$59.95
THUNDERBIRDS - ARE GO	\$59.95
THUNDERSTRIKES	\$59.95
TIME	\$69.95
TOTAL ECLIPSE	\$49.95
TOWER OF BABEL	\$59.95
TRACKSUIT MANAGER - SOCCER	\$39.95
TREASURE TRAP	\$59.95
TRIAD VOL 2	\$59.95
TRIAD VOL 3	\$59.95
TRUMP CASTLE	\$69.95
TURBO OTRUN	\$49.95
TURRICAN	\$59.95
TV SPORTS BASKETBALL	\$69.95
TV SPORTS FOOTBALL	\$69.95
TWIN WORLD	\$49.95
TWO UP	\$29.95
U.M.S. SCENARIO DISK 2	\$29.95
ULTIMA IV	\$79.95
UNREAL - GREAT GRAPHICS	\$59.95
VEGAS GAMBLER	\$49.95
VIKING CHILD	\$59.95
VINDICATORS	\$49.95
WATERLOO	\$59.95
WAYNE GRETSKY HOCKEY	\$69.95
WEIRD DREAMS	\$59.95
WICKED	\$59.95
WINDWALKER	\$59.95
WINGS - SIZZLING HOT - CINEMAWARE	\$89.95
WINGS OF FURY	\$69.95
WINNERS COMPILATION	\$49.95
WOLF PACK - ON BACK ORDER TREVII	CLOSE!!
WORLD CLASS L/BOARD GOLF	\$39.95

WORLD CUP SOCCER	\$59.95
WORLD CUP YEAR 90 - SOCCER	\$69.95
WORLD TOUR GOLF	\$45.95
X-OUT	\$59.95
ZAK MC KRACKEN	\$52.95
ZANY GOLF	\$49.95
ZORK ZERO	\$64.95

PRODUCTIVITY

3-D PROFESSIONAL (WITH VIDEO)	\$550.00
A TALK 3 - SPECIAL	\$69.95
ADVANTAGE - SPECIAL	\$199.00
AMIGA POST CODE	\$49.95
AMIGA VISION	\$199.00
AMOS	\$125.00
ART PARTS - FOR DPAINT 3	\$49.95
ASSEMBRO	\$149.00
AUDIO ENGINEER S/WARE/H/WARE	\$CALL
AWARD MAKER PLUS	\$49.95
BOARD MASTER - CAD/PCB	\$149.00
BUMPER STICKER MAKER	\$79.95
CALC KEY V 1.2	\$29.95
CRITICS CHOICE - SPECIAL	\$129.00
CROSS DOS - V4.0	\$64.95
DELUXE MUSIC CONSTRUCTION SET	\$99.00
DELUXE PAINT III	\$99.00
DELUXE PHOTO LAB (POSTERS TOO)	\$99.00
DELUXE PRINT II	\$99.95
DELUXE VIDEO III	\$99.95
DESKTOP BUDGET - SPECIAL	\$49.95
DG CALC	\$89.95
DIGIMATE 3	\$59.95
DIGIPAINT 3 *	\$135.00
DIGIVIEW GOLD 4	\$269.00
DISKMASTER	\$59.95
EASY LEDGERS (JOBS)	\$499.00
EASY LEDGERS ACCOUNTING	\$375.00
ECLIPS - PRO DRAW/PAGE CLIP ART	\$139.00
ELAN PERFORMER	\$89.95
ELECTRONICS DEBTORS SYSTEM	\$299.00
FACC II	\$54.95
FANTAVISION	\$99.95
FLIPSIDE	\$39.95
FREELANCE DATABASE	\$49.95
GOLD DISK TYPEFONT SERIES 4	\$89.95
GOLDSPELL 2	\$44.95
HAM IT UP - WORKS WITH DPAINT	\$69.95
HOME BUILDERS CAD	\$299.00
INTERFOND - FONT DESIGNER	\$165.00
INTROCAD	\$99.00
KARA FONTS	\$99.95
LATTICE C V5	\$399.00
MAC TO DOS	\$189.00
MICROFICHE FILER	\$89.00
OUTLINE FONTS FOR PRO PAGE	\$269.00
PAGESETTER II - C/GRAPHIC FONTS	\$175.00
PAGESTREAM FONTS VOL 1.1	\$59.95
PAGESTREAM V2.0	\$399.00
PEN PAL - WORD PRO	\$199.00
PHOTON PAINT V2 - HAM PAINT	\$199.00
PIXEL SCRIPT - PRINTS LIKE POS	\$199.00
POSTCODE FOR AUSSIE SEARCHER	\$49.00
POSTSCRIPT FOR PROWRITE	\$64.95
PRINTMASTER ART GALLERY 1	\$49.95
PRO VIDEO FONTS (SET 2)	\$149.00
PRO VIDEO PLUS (PAL) SPECIAL	\$355.00
PROFESSIONAL DRAW V2.0*	\$275.00
PROFESSIONAL PAGE - SPECIAL	\$295.00
PROWRITE V3.0	\$199.00
QUARTERBACK (HD BACKUP)	\$99.00
SCENE GENERATOR	\$74.95
SEASONS & HOLIDAYS CLIP ART	\$49.95

SMART KEY	\$59.95
SOUND EXPRESS (STEREO DIGITIZE)	\$115.00
SPRITZ	\$99.95
SUPERBACK	\$99.95
SYSTEM 3 (ACCOUNTS)	\$129.00
THE ART DEPARTMENT	\$129.00
THE OFFICE - GOLD DISK	\$CALL
TOTAL CONTROL DIET	\$149.00
TV TEXT PROFESSIONAL	\$259.00
VIDEO TITLER + L/C/ACTION	\$169.00
WALT DISNEY ANIMATION STUDIO	\$249.95
YOUR FAMILY TREE 2	\$115.00

MUSIC

BARS AND PIPES	\$59.95
\$CALL	
DELUXE MUSIC CONSTRUCTION SET	\$99.95
DR T'S COPYIST APPRENTICE	\$149.00
DR T'S COPYIST DTP	\$449.00
DR T'S KCS LEVEL II	\$399.00
DR T'S MIDI RECORDING STUDIO	\$84.95
DR T'S PHANTOM (SYMPTTE SYNCH)	\$139.00
DR T'S TIGER CUB	\$199.00
ECE MIDI	\$199.00
ENUNCIATOR	\$34.95
MASTER SOUND (MONO DIGITIZER)	\$89.95
MIDI MAGIC	\$299.00
MUSIC X - TOP STUFF	\$299.00
PERFECT SOUND 3.0	\$199.00
SONIX 2.0 - MUSIC	\$99.00

G'DAYS

Æ
CONGRATULATIONS TO ...

**ROBERT (HDC) AND
CHERYL ON THEIR
RECENT WEDDING.**

**IT'S LUCKY THAT BOTH
ARE AMIGA LOVERS.**

GOOD LUCK!

**HI TO CHRIS & BRUNO AT
COMMODORE**

**G'DAY TO ALL USER
GROUPS AND AMIGA BBS's**



HARD DISK CAFE

SHOP 9 AKUNA LANE - P.O. BOX 879, MONA VALE 2103

If you want software that isn't listed, phone us and see if we can order it in for you

EDUCATION

READING & TYPING	AGE 3-6	\$39.95
ALPHABET	PRESCHOOL	\$49.95
ANIMAL KINGDOM	AGE 6-12	\$69.95
ARITHMETIC	HIGH SCHOOL	\$69.95
ASSOCIATED - WORD ASSOCIATION	AGE 3-8	\$39.95
BAMBINOS JIGSAW PUZZLE	AGE 3-8	\$39.95
BASIC GRAMMER	AGE 7 & UP	\$49.95
BETTER SPELLING	8 TO ADULT	\$59.95
CROSS OUT THE INTRUDER	AGE 3-8	\$39.95
DECIMAL DUNGEON	AGE 5 & UP	\$69.95
DISCOVER ALPHABET	AGE 6 & UP	\$39.95
DISCOVER CHEMISTRY	AGE 12 & UP	\$39.95
DISCOVER MATHS	AGE 10 & UP	\$39.95
DISCOVER NUMBERS	AGE 6 & UP	\$39.95
DISCOVERY GEOGRAPHY <small>expansion disk</small>	GRADE 9-12	\$29.95
DISCOVERY HISTORY <small>EXPANSION DISK</small>	GRADE 9-12	\$29.95
DISCOVERY MATHS MASTER DISK	GRADE 1-7	\$59.95
DISCOVERY SCIENCE <small>EXPANSION DISK</small>	GRADE 9-12	\$29.95
DISCOVERY SOCIAL STUDIES <small>EXPANSION</small>	GRADE 9-12	\$29.95
DISCOVERY SPELL MASTER DISK	GRADE 1-7	\$59.95
DISCOVERY TRIVIA 1 <small>EXPANSION DISK</small>	VARIOUS	\$29.95
DISCOVER TRIVIA 2 <small>EXPANSION DISK</small>	VARIOUS	\$29.95
EZ-GRADE (TEACHERS GRADEBOOK)	TEACHERS	\$89.95
FUN SCHOOL 2	AGE 6-8	\$49.95
FUN SCHOOL 2	OVER 8	\$49.95
FUN SCHOOL 2	UNDER 6	\$49.95
FUN SCHOOL 3 * NEW		\$49.95
GLOBAL TREK	VARIOUS	\$34.95
KIDS COLLECTION	AGE 3-7	\$59.95
KINDERAMA	PRESCHOOL-6	\$69.95
MAGIC MATH	4 TO 8	\$49.95
MATH A MAGICIAN		\$49.95
MATH BLASTER PLUS-PRINTS CERTIFICATES	PRIMARY	\$69.95
MATH MANIA	8 TO 12	\$59.95
MATH WIZARD	AGE 5-10	\$69.95
MAVIS BEACON TEACHES TYPING	AWARD WINNER	\$69.95
MEDAL WINNER		\$49.95
MEMORISE	AGE 3-8	\$39.95
PLANET PROBE		\$49.95
PROBABILITY	HIGH SCHOOL	\$69.95
READ A RAMA	AGE 5 & UP	\$69.95
ROBOT READERS - AESOPS FABLES		\$34.95
ROBOT READERS - THE LITTLE RED HEN	AGE 4-8	\$34.95
ROBOT READERS - THE THREE BEARS	AGE 4-8	\$34.95
ROBOT READERS - THE THREE LITTLE PIGS	AGE 4-8	\$34.95
ROBOT READERS - THE UGLY DUCKLING	AGE 4-8	\$34.95
SESAME STREET - LETTERS FOR YOU		\$49.95
SESAME STREET - NUMBERS COUNT		\$49.95
SESAME STREET - OPPOSITES ATTRACT		\$49.95
SPACE MATH	AGE 8 & UP	\$39.95
SPELL BOOK	AGE 4-6	\$39.95
SPELL BOOK	AGE 7 & UP	\$39.95
SPELLBOUND	PRIMARY	\$59.95
SUM-IT MOUNTAIN		\$49.95
SUNNYSIDE UP		\$49.95
TES OF THE ARABIAN NIGHTS	AGE 8-12	\$69.95
TALKING COLOURING BOOK	PRE-SCHOOL	\$49.95
THE BIRDS & THE BEES - SEX EDUCATION	AGE 7-12	\$39.95
TGS TO DO WITH NUMBERS	PRIMARY	\$39.95
TINGS TO DO WITH WORDS	PRIMARY	\$39.95
THREE BEARS	5 TO 10	\$49.95
TRACKERS QUEST	AGE 4 & UP	\$54.95
TRIGONOMETRY	HIGH SCHOOL	\$69.95
WHERE IN EUROPE IS CARMEN	VARIOUS	\$84.95
WHERE IN THE USA IS CARMEN	VARIOUS	\$84.95
WHERE IN THE WORLD IS CARMEN	VARIOUS	\$84.95
WHERE IN TIME IS CARMEN	VARIOUS	\$CALL
WORD MASTER	AGE 3-8	\$69.95

HARDWARE & ACCESSORIES

1950 MULTISYNC MONITOR	\$CALL
AMIGA 2000+ 40 MG/HD	\$2699.00
AMIGA 2000 - SPECIAL PRICE	\$1599.00
AMIGA 2091/40HD QUANT 2MB-OPT	\$1100.00
AMIGA 3000/100 HD (25MHZ)	\$CALL
AMIGA 3000/40 HD (25 MHZ)	\$CALL
AMIGA 590 HARD DRIVE (RAM EXT)	\$675.00
AMIGA STARTER KIT-VIDEO_15 EX	\$875.00
NEW * SUPER DENISE CHIPS	\$59.95
1.3 ROM CHIPS	\$29.95
1084S COLOUR MONITOR	\$449.00
1084S MONITOR EXTENSION CABLES	\$29.95
A2000 KEYBOARD SKINS	\$39.95
A500 KEYBOARD SKINS	\$39.95
AMIGA 500	\$799.00
AMIGA 512K RAM EXPANSION	\$149.00
AMIGA EXTERNAL DRIVE	\$179.00
CANON STILL VIDEO CAMERA	CALL
CANON WIDE ANGLE LENS	\$110.00
CITIZEN 200GX 9 PIN COLOUR	\$475.00
CITIZEN 5800 9 PIN B/W	\$350.00
CITIZEN GSX-140 24 PIN COLOUR	\$799.00
COMMODORE A2300 INTERNAL GENLOC	\$399.00
COMMODORE MPS1230 9 PIN B/W	\$299.00
COMMODORE MPS 1280 136 WIDE	\$399.00
DIGIVIEW SWITCH BOX & CABLES	\$69.95
DISK DRIVE EXTENSION CABLE	\$29.95
HARRIS HI-TEK ANTI-GLARE SCREEN	\$39.95
JOYSTICK EXTENSION CABLES	\$10.95
KURTA GRAPHIC TABLET	\$899.00
MITY MOUSE JOY/MOUSE SWITCH BOX	\$49.95
NERIKI DESKTOP GENLOCK (Y/C)	\$1199.00
NEW PAL FRAME GRABBER/DIGITIXER	\$1299.00
PRISM COLOR SPLITTER	\$499.00
SHARP SCANNER JX-100	\$CALL
STEREO/MONITOR SWITCH BOX	\$29.95
VIDI-AMIGA FRAME GRABBER	\$329.00
VIDTEK SCANLOCK GENLOCK (Y/C)	\$1700.00
XT BRIDGEBOARD (LIMITED STOCKS)	\$599.00
XT EMULATOR FOR AMIGA 500	\$699.00
KAWAI FUNLAB MUSIC KEYBOARD	\$995.00

NEWS 'N' STUFF

SEE YOU AT THE WORLD OF COMMODORE AT THE ROYAL EASTER SHOW NEXT YEAR, IN THE DAIRY PAVILION, WHERE WE WILL SEE AMIGA CD LAUNCHED.

WHEN PHONING, ASK FOR KAREN, ROBERT, NEIL, MAL OR DARREN. MUSIC ROB / PHIL

THE HARD DISK CAFE

POSTAL ADDRESS
POST OFFICE BOX 879,
MONA VALE 2103
PHONE: (02) 979 5833
FAX: (02) 979 6629

AUTHORISED EDUCATION DEALER

NAME: _____ PHONE: () _____

ADDRESS: _____ PCODE _____

✓ PAYMENT: CHEQUE B/CARD M/CARD VISA

CARD #

Exp: Signature _____

ALL ITEMS LISTED ARE IN STOCK AT TIME OF PRINTING AND WILL BE SENT SAME DAY. ALLOW 14 DAYS DELIVERY. ADD \$3.00 SOFTWARE POSTAGE. HARDWARE CALL FOR ARRANGEMENTS. ALL PRICES SUBJECT TO CHANGE.

QTY	DESCRIPTION	PRICE

DO NOT SEND CASH!!

TOTAL =

The C64 Column

by Owen James

Rescue the C64!

If you cast your mind back to my June column you'll remember me saying the 64 is not dead. This is still as true as ever, but it appears Commodore isn't all that pleased at this unkillable machine. Commodore themselves have even admitted they tried to kill the old 64 off many times, but without much success. Right now the 64 is being challenged from all sides. It has the game consoles to contend with, the more powerful Amigas to beat, and to top it all off is the lack of support from Commodore.

Looking at the situation realistically the Commodore 64 can't survive much more of this treatment. It's time for Commodore to make a definite decision about the future of our favourite machine, otherwise it will be made for them.

Commodore have made some monumental mistakes in the past. The Plus/4 computer for example. It wasn't any more powerful than a 64, had very few software releases available, yet was still trying to provide an alternative to the 64. At the time the Plus/4 was released the 64 was tagged a game computer. We all know it's more than a games machine but when a computer is labelled a 'toy' it really doesn't sell well as a serious machine. The Plus/4 was trying to be the business alternative, but good ol' Commodore did their normal trick of not giving the support it needed.

Here's another fine example of Commodore's thinking; the death of the C128. The 128 was one of the absolute best 8-bit computers on the market. It had an 80 column mode, a C64 mode, a CP/M mode and was often regarded as the thinking person's 64 (no insult intended to thinking 64 users!).

When the Amiga was released the 128 was just left to rot. No support or real marketing attempt was made. I genuinely believe the 128's demise was premature. It's quite clear that Commodore are making the fatal mistake of throwing all its eggs into one basket - the Amiga basket. My guess is that if the Amiga was to suddenly flop then so would Commodore.

Alright then. Commodore have made mistakes in the past. The 64's death doesn't have to be another one. Here's some of my own ideas for restoring people's faith in Commodore. Let's start by resurrecting the 128. First a quick name change. I think people relate to computers with names rather than numbers. Second on the list is that it must have some kind of direction. Personally I feel it would suit the business market perfectly. Business users have only one real clear-cut choice - IBM. IBM compatibles are fine, but they lack the friendliness of other computers (sort of like an Apple IIe with a charisma by-pass!). There must be thousands of small business users who are unhappy with their big, bulky, unnecessarily powerful IBMs. The 128, if marketed correctly, could easily become the business alternative. The only thing needed is software developers to take notice of the 128. If Commodore showed true enthusiasm then I think developers would too.

An education machine

At a C64 display in Auburn I attended recently was a 64 set up running educational software. I was very surprised to find that it was more popular than the music and demonstration areas put together. Kids, parents, and grand-parents took great interest in this aspect of the 64. Most of the kids that had joystick R.S.I. in the hand from constant games were now bettering their education, whether they knew it or not.

Obviously Commodore can no longer push the 64 as a games machine to compete with Nintendo, nor can it be pushed as an alternative business computer. How about THE education computer? When you think of business you think of IBM. When you think of music you think of the Atari ST (shame, Amiga, shame!) When you think of desktop video/multi-media you think of Amiga. When it comes to education, there really isn't a computer to fit the bill.

If some of the 64's education titles were revamped and upgraded the 64 could find itself back on the top of the heap. Education software shouldn't just concentrate on children either. Adult education is a relatively unexplored area. Titles like "Teach yourself Physics" could become the software kings. I see the C64 as the new education medium. Once education puts the 64's foot back into the computer world's door it wouldn't be long until new life was breathed into all the other areas such as music and games. Even if Commodore decide to officially dump the 64 the support from other sources just won't stop.

Well over seven million C64s have been sold worldwide (the world's largest selling individual model). With this many 64s in existence you can guarantee software, user group, and dealer support for a long time to come.

Tricks and Tips

Here's this month's tips, tricks, and anything else that managed to squeeze in:

Bill Woolford of Narara N.S.W. has been kind enough to send me a pile of tips and tricks that he has compiled over the years. Thanks Bill.

Head alignment

After your heads have been properly aligned you should record a short BASIC program to be used as a check for future alignment. Load the tape, then type PRINT PEEK (630), ST. The screen will display two numbers. If both are zero then the head is still aligned. If either numbers are not zero then the head is not where it should be. Bill writes that you may be able to adjust the datasette head yourself by using a small phillips head screwdriver. After doing this try the tape again.

Program instructions

Instructions for programs can often be hard to find when needed. Bill writes that you should create a stand alone program (usually one screen will do) to print any important instructions to the screen, and then add a routine to chain load the original program. Add this to the original program disk, then run this routine instead of the normal program. After displaying instructions the program will automatically load and run.

Fast Line Deletion

Another of Bill's tricks is the fast deletion of program lines. Suppose you want to delete lines 100 to 190 in steps of 10. Type in this line:

```
FOR I = 100 TO 190 STEP 10:PRINT I:NEXT I
```

The line numbers 100 to 190 will appear on the screen.

BRIWALL AUSTRALIA

BUSINESS HOURS
Mon to Friday
9AM to 4.30PM

PO BOX 9
RIVETT ACT 2611

24 HOUR SERVICE
PHONE: (06) 288 0131
FAX : (06) 288 0337

AMIGA

GENERAL BUSINESS

ADVANTAGE (THE)	240
ANALYSE 2.0	99
BECKER TEXT	149
CALIGARI CONSUMER	285
CITY DESK V2	225
DATA RETRIEVE (NOT PRO)	90
DESKTOP BUDGET	95
EASY LEDGERS	369
EXCELLENCE	259
HAICALC	72
KARA FONTS	65
KIND WORDS	95
NAG PLUS V3.1	100
P H A S A R V4	129
PEN PAL	185
PRO WRITE V3.0	189
TV TEXT PROFESSIONAL	225
WHO WHAT WHEN WHERE	130
WORD PERFECT LIBRARY	155
WORD PERFECT V4.1	329

CREATIVITY/GRAPHICS

BUMPER STICKER MAKER	72
BUSINESS CARD MAKER	59
DELUXE PAINT 111	199
DELUXE PHOTO LAB	205
DELUXE PRINT 11	110
DELUXE VIDEO 111	169
DESIGN 3D	109
DIGIMATE 3	49
DIGIPAIN 3	119
DIGIVIEW GOLD V4	269
DIGIWORKS 3D	169
DIRECTOR	95
DIRECTOR TOOLKIT	52
ECLIPS	129
EXPRESS PAINT III	149
FAMILY TREE (YOUR)	65
FANTAVISION	75
INTRO CAD	99
INTRO CAD PLUS	195
MEDIA LINE ANIM	
BACKGROUNDS	20
MEDIA LINE CLIP ART DISC	20
MEDIA LINE FONT DISC	20
MODELLER 3D	115
MY PAINT	65
OPTICKS	259
PHOTON PAINT 11	189
PIXEL SCRIPT 1.1	189
PIXMATE	95
PRINTMASTER PLUS	55
PROFESSIONAL DRAW 11	299
SCULPT 4D JNR	219
TURBO SILVER	240
ULTRA CARD	69
VIDEO SCAPE 3D V2	219
ZOETROPE	169

EDUCATION

ANIMAL KINGDOM	59
BARNEY BEAR TO SCHOOL	34

BARNEY BEAR TO FARM	34
CHICKEN LITTLE	35
KINDERAMA	65
LINKWORD FRENCH	43
LINKWORD GERMAN	43
LINKWORD ITALIAN	43
LINKWORD SPANISH	43
MATH TALK	44
MATH TALK FRACTIONS	44
MATH WIZARD	59
MAVIS BEACON TYPING	70
READ & RHYME	65
READ A RAMA	65
SMOOTH TALKER	55
THREE BEARS	35
WHERE C. SANDIEGO - EA	65
WORLD ATLAS	85

MUSIC

BARS & PIPES	375
DELUXE MUSIC CONST.	139
DR T COPY APP	145
DR T COPY PROF	359
DR T MIDI RECORD STUDIO	89
DR T TIGER	199
DR T TIGER CUB	129
FUTURE SOUND	229
MASTER TRACKS	539
MUSIC X	389
PERFECT SOUND A500	139
PIXSOUND	110
SONIX	95
SONIX SOUNDTRACKS	29

BOOKS/UTILITIES

AMIGA C FOR ADVCD PROG	45
AMIGA C FOR BEGINNERS	30
AMIGA HARDWARE REF REV	40
AMIGA PROG HANDBK VL 1	45
AMIGA TIPS & TRICKS	40
KIDS AND THE AMIGA	30
AC BASIC V1.	259
AMAX	249
AMAX & CHIPS	529
AMI ALIGNMENT.	49
AMI KIT	58
AREXX	65
ASSEMPRO	143
AZTEC C DEV PAK V5	375
AZTEC C PROF PAK V5	305
B A D	65
BENCHMARK MODULAR 2	269
BUTCHER 2.0	49
CLI MATE	59
CROSS DOS	45
DISK 2 DISK	59
DISKMASTER	69
DOCTOR AMI	49
DOS 2 DOS	65
DUNLAP UTILITIES	95
FAT TRACKS	79
GP TERM	99
HISOFT PROFESSNL BASIC	215
LATTICE C V5.04 DEV PAC	429
LATTICE C ++	490
POWER WINDOWS	115
PROJECT D V1.1	69

QUARTERBACK	84
RAW COPY	79
SUPERBACK	99
TRUE BASIC	139

GAMES/ADVENTURES

3D POOL	45
ADVENTURES OF SINBAD	59
ADVENTURES THRU TIME	59
AESOPS FABLES	59
AFTERBURNER	59
ALIEN SYNDROME	55
ALTERED BEAST	59
AQUA VENTURE	45
ARCHIPELAGOS	45
AUNT ARTIC ADVENTURE	45
AUTO DUEL	64
BALANCE OF POWER 1990	59
BATMAN THE MOVIE	60
BATTLE CHESS	59
BATTLE SQUADRON	45
BEYOND DARK CASTLE	45
BLITZKREIG ARDENNES 1mg	65
BLITZKREIG ARDNNES 512K	60
BLOCKOUT	49

Friendly service with technical support. Phone or use our coupon for our free catalogue listing our full range of products.

BUBBLE GHOST	45	FOURTH & INCHES	25
CAPONE	45	GALACTIC INVASION	29
CLUE MASTER DETECTIVE	49	GAUNTLET 2	65
DARK SIDE	49	GRAND PRIX RACING	65
DEATH SWORD	35	HOLLYWOOD STRIP POKER	45
DEFENDER OF THE CROWN	59	HONDA RVF	49
DESIGNASAURUS	59	HUNT FOR RED OCTOBER	49
DISTANT SUNS	78	INDIANA JONES (ACTION)	60
DOUBLE DRAGON II	50	IT CAME FROM THE DESERT	59
DR DOOM'S REVENGE	49	IT CAME FROM DESERT II	29
DRAGONS LAIR II Singes Cas	85	JACK NICKLAUS COURSES	29
DUNGEON MASTER	50	JACK NICKLAUS GOLF	59
EYE OF HORUS	50	JET	59
F16 COMBAT PILOT	55	JETSONS (THE)	49
F18 INTERCEPTOR	59	LAST INCA (THE)	6
F40 PURSUIT SIMULATOR	52	LEADERBOARD DUAL PACK	49
FAERY TALE	59	LEADERBRD TOURN DISK	25
		LEADERBRD WORLDCLSS	59
		LEISURE SUIT LARRY	49
		LEISURE ST LARRY V2 & V3	59
		LORD OF THE RISING SUN	65
		MEAN 18 FAMOUS CRSES 2	29
		MEAN 18 GOLF	55
		MONOPOLY	49
		NIGHT HUNTER	50
		NORTH & SOUTH	59
		OMEGA	65
		OUT RUN	59
		PAPERBOY	25
		PIRATES	55
		PLANET OF LUST	39
		PLANET OF LUST HINT SHT	5
		PRO FOOTBALL SIMUL	43
		PRO TENNIS TOUR	49
		REACH FOR THE STARS	49
		RENEGADE	29
		SAVAGE	55
		SCRABBLE	49
		SEX VIXENS FROM SPACE	39
		SEX VIXENS HINT SHEETS	5
		SHARK ATTACK	49
		SILENT SERVICE SUB SIMUL	29
		SIM CITY	65
		SIM CITY TERRAIN ED	29
		SINBAD THRONE FALCON	35
		SPEEDBALL	57
		STORM ACROSS EUROPE	69
		STRIP POKER II	55
		SUPER HANG ON	59
		TEENAGE MUTANT NINJA TS	59
		TEMPLE OF DOOM	55
		TERROR PODS	55
		TEST DRIVE	55
		TEST DRIVE II SCENE DISCS	35
		TETRIS	49
		THREE STOOGES	59
		TOM AND JERRY	35
		TURBO OTRUN	65
		TV SPORTS FOOTBALL	59
		TWILIGHT ZONE	55
		VIDEO VEGAS	50
		WATERLOO	65
		WEIRD DREAMS	55
		WINGS	59
		WORLD TOUR GOLF	29
		WWF WRESTLG GME MTCH	55

Check out these genuine everyday low prices

BLUE ANGELS	59	FAERY TALE CLUE BOOK	25
BREACH	49	FALCON	54
BREACH 2	59	FALCON SCENERY	40
BRIDE ROBOT HINT SHEETS	5	FEDERATION	59
BRIDE OF THE ROBOT	39	FIRE POWER	35
BRIDGE 6	59	FLIGHT SIMULATOR II	65
BUBBLE BOBBLE	29	FLIGHT SIM SCENE DISCS	37

CHRISTMAS SPECIALS

Strictly limited supplies of the following programmes are available at these great prices. Hurry while stocks last !!!

AMIGA		64/128	
ASSEMPRO	123	ASSEMBLER	
DR AMI	39	MONITOR 64/128	49
DIGIPAIN III	99	BUSINESS CARD MAKER	
AREXX	55		29
C.A.P.E. 68K V2.5	99	BUSINESS FORM SHOP	40
DEMON'S WINTER	55	CMS ACCOUNTING 64	199
MIGHT & MAGIC II	65	DIGITALKER 128	29
JACK NICKLAUS GOLF	55	PROTOTERM 128	12
PHASAR (HOME ACC'TING)	99	PERS PORTFOLIO MGR	49
SYNTHIA (DIGITAL SYNTH)	99	SUPER PASCAL 128	65
SEX VIXENS FROM SPACE	29	REVENGE OF MOON	
BRIDE OF THE ROBOT	29	GODDESS	9
BARNEY BEAR SERIES GOES TO THE FARM	29	TORCHBEARER	9
GOES TO SCHOOL	29	GALACTIC FRONTIER	9
GOES TO SPACE	29	EYE OF THE INCA	9
MEETS SANTA CLAUS	29	PROTOLINK BBS 128	19
DR T'S MIDI INTERFACE	85	SUPER DISK UTILITIES	25
		SUPER DISK LIB	
		(64 OR 128)	25
		SCREEN F/X	33
		BILLBOARD MAKER	26
		SUPER 81 UTILITIES	
		64 OR 128	25

Free gift voucher with every order

Large range of Amiga products growing daily. If you don't see it listed contact us for help.

C64/128		EDUCATION/MUSIC		BRIWALL AUSTRALIA	
GENERAL BUSINESS				We stock the largest range of 64/128 products in Australia. Ask for our free catalogue TODAY.	
DATA MANAGER 64	40	LINKWORD FRENCH	39	UTILITIES	
GEOS 128 V2	89	LINKWORD GERMAN	39	1541/1571 DRIVE ALIGNMNT	44
GEOS 64 V2	80	MAVIS BEACON TYPING	59	1581 TOOLKIT V2	60
GEOS SUPPORT PRGS FR	45	STICKYBEAR ABC'S, MATH ETC	35	BASIC 8	48
PARTNER 64	60	WHERE C. SANDIEGO (EA)	59	BASIC 8 TOOLKIT	29
POCKET FILER 2	65	DR T KCS 128	325	BASIC COMPILER 128	90
POCKET WRITER 2	65	CHRISTMAS CLASSICS	15	BASIC COMPILER 64	80
POCKET WRITER 3 128	89	SCOTT JOPLIN RAGTIME	9	BIG BLUE READER	65
POCKET WRITER 3 64	89	BIBLE SEARCH KJV NEW TEST	40	COBOL 64	58
SUPER/BASE, S/S/CPT, BK 128 PK	130	BRIDGE 5	43	COBOL 128	58
SUPER/BASE, S/S/CPT, BK 64 PK	110	FAMILY TREE 64/128/LDS	86	CPM KIT	55
SUPERBASE 128 V3	90	ACCESSORIES/BOOKS		DIGITAL TALKER 128	39
SUPERBASE 64	59	64K VIDEO RAM UPGRADE CART. FULL	90	GNOME SPEED COMPIL 128	35
SUPERSCRIPT 128	80	64K VIDEO RAM UPGRADE CHIPS	50	MAVERICK COPIER V5	50
SUPERSCRIPT 64	59	APROSPAN 4 SLOT CART HOLDER	50	MERLIN 128	100
TECH ANALYSIS SYST 128	85	COVERS (VARIOUS) FROM	13	MERLIN 64	72
TECH ANALYSIS SYSTEM 64	55	FINAL CARTRIDGE III	110	RAM EXPANDER 1750	429
WRITE STUFF 128 w/spellcheck	49	500 C128 QUESTIONS & ANSWERS	40	SUPER 64 LIBRARIAN	25
WRITESTUFF 64 w/spellcheck	40	BASIC 8 HOW GET MOST BK & DISC	35	SUPER 81 UTILITIES 128	35
WRITE STUFF 64 w/talk	49	C128 INTERNALS BOOK	45	SUPER 81 UTILITIES 64	35
CREATIVITY/GRAPHICS		C128 TIPS AND TRICKS	45	GAMES	
AWARD MAKER PLUS 64	60	C128 TROUBLESHOOT & REPAIR	45	BATMAN THE MOVIE	35
		DISKS FOR BOOKS	25	BLUE ANGELS	43
		KRACKER JAX REVEALED 1 2 & 3	35	DOUBLE DRAGON II	39
		SUPERBASE THE BOOK	40	EYE OF HORUS	37
				F14 TOMCAT	44
				LORD OF THE RISING SUN	39
				MONOPOLY	39
				SEX VIXENS FROM SPACE	30
				SIM CITY	39
				WHEEL & DEAL	19
				WHEEL OF FORTUNE 2	19

ORDERS: Please make cheques payable to "Briwall Australia" and mail order to PO BOX 9, RIVETT, ACT 2611. All in stock items shipped same day. Please allow 14 working days for delivery of out of stock items. Should your product be faulty please return disk only and copy of receipt for immediate free replacement. COD also available. Prices are subject to change without notice.

NAME.....	PH (.....)	BK/CARD/MASTERCARD/VISA NO:	EXPIRY DATE
ADDRESS.....		Cheques payable to Briwall Australia	
CITY.....STATE.....POSTCODE.....COUNTRY.....		SIGNATURE.....	
DESCRIPTION	QUANTITY	COMPUTER TYPE::	
	EACH	SUB-TOTAL..... \$.....	
	TOTAL	POSTAGE..... \$...4.00.....	
		GRAND TOTAL... \$.....	

For complete list of products & prices, please tick AMIGA () C64/128 ()

Place the cursor over 100 and press RETURN ten times. The lines have been deleted.

We'll be hearing more of Bill Woolford's tips next month. Bill also sent me a cassette containing some programs that he wrote himself. I would very much like to put together a disk containing programs that readers have written which could be made available to other users.

Here's the chance to show others what you can do. Send me a disk, tape, or printed listing of your program. It can be as short or as long as you like. Remember, I'm not expecting professional quality software - just the simple programs that you've written and used. Whether it be a DOS utility, a short sequential file reader, or even a subroutine you've found helpful in programs send it in. Disks and tapes will be returned.

Poor Screen Colours

Glenn Webster of Bayswater North writes that there is nothing worse than running a program that has virtually unreadable screen colours. The problem, he says, arises when you can't change the poke statements, such as in a program

compiled with the BLITZ! compiler. A simple SEQ file opened at the beginning with an INPUT#2,S,B.

Glenn says that you should just need to POKE 53281,s etc, and have an option in your program to set colours, similar to the Geos preference manager.

Glenn also writes to complain at the lack of C64 support from magazines these days. Well I'm afraid that's the sad facts of life. Magazines can only write about what the majority want to hear. Your comments on repetition of material in mags such as this are justified, but keep in mind that not everyone has read all the books and magazines that you have. Like with anything, there's only a limited amount of subjects that can be covered with the 64. If you think you have some kind of revolutionary idea that could be written on then tell me about it.

Data Checker

A person wrote to me recently with a tip, and a listing to a fabulous utility she wrote for the easier entering of DATA statement lines etc. This will be included on the C64 User software compilation

disk. She doesn't wish to have her name used in the column, so let's just call her Ann Ominous (very droll). Ann writes that since not all program listings have some kind of checking device implemented when using hoards of DATA statements, it can be a real pain (to put it politely) to have an ILLEGAL QUANTITY error pop up and not know where. She says to type:

PRINT PEEK (63) + PEEK (64) * 256 and the 64 will list the last line of data numbers read.

I'm hoping to do a piece on C64 user groups and what they offer in the not too distant future, so if you've got a user group that supports the 64 then I'd love to hear from you. Drop me a line care of:

ACAR,
P.O Box 288,
Gladesville, 2111

Remember that, as always, I want to know about YOUR tips, tricks, comments, suggestions etc. I'll be back next month with more 64 related info, so until then keep 64ing!

Prime Artifax - Public Domain Software - Free Postage

Three
Disk
Set

Amiga Live Issue 5 COMPILATION

\$24.95

Three disks crammed full with all the latest in Public Domain programs. Includes games, animation, music and utilities - most with full instructions.

ISSUE FIVE FEATURES

- * **Juggette** - The female juggler!
- * **Stitchery** - great for the wife.
- * **Pipeline game** - arcade quality.
- * **Keymenu** - Fast menu access.
- * **Imperium** - Four player strategy.
- * **3DticTacToe**
- * **Cubical** - Optical Illusion.
- * **Bollintro** - Amazing Ball Animation.
- * **SAS Tools** - Screen Hacks and Utils.
- * **Password** - security for your Ami.
- * **CPU Standoff** - Animation.

F I S H AQUARIUM DATABASE



Disks 1-370

\$5.50

inc. postage

- * **Locate any program**
- * **Search by name**
- * **Search by theme**
- * **Search by description**

Over 370 disks... 1000's of programs catalogued ready to choose from.

Order your FISH public domain disks for just \$5.50 inc. postage and handling.

Every disk is filled with a many programs, complete with instructions.

WE SUPPORT WHAT WE SELL

Unlike many public domain suppliers, we also provide full support. If you're having trouble, just call our support line. Make sure you have a clear explanation of your problem, or have the computer operating in front of you. (02) 879 7455

All orders for Public Domain shipped within 24 hours of receipt by Australia Post. or come in and pick up direct.



ORDER HOT LINE
FREE CALL 008 252879
LOCAL 02 879 7455



Graphics and Animation	
Ace #06	\$5.50
Ace #09	\$5.50
Ace #14	\$5.50
Ace #17	\$5.50
Ace #18	\$5.50
Ace #19	\$5.50
Ace #20	\$5.50
Artscape	\$8.95
Badge Demo Set	\$12.50
Cameron Scanner	\$5.50
CSIRO Sat-Piccies	\$5.50
Cycle Ball Demo	\$5.50
Digi-Slide Show 1	\$5.50
Digi-Slide Show 2	\$5.50
Dragon's Lair Demo	\$5.50
Gymnast	\$5.50
Kanakas	\$5.50
Luxo Teenager	\$5.50
Music Mania #10	\$5.50
Music Mania #12	\$5.50
Music Mania #13	\$5.50
Newtek Demo 1	\$8.95
Newtek Demo 2	\$8.95
Northstar Demos	\$8.95
PC87 Slide Show	\$5.50
RGB Hazzards	\$5.50
Soundtracker 5-Set	\$22.00

Vaux Killer (1MB)	\$8.95
Walker 1 (1MB)	\$5.50
Walker 1 (2MB)	\$8.95
Walker 2 (2MB)	\$8.95
Walking Cat	\$5.50
Zues Demo	\$5.50

Theme Disks

Anti-Virus PAK	\$14.95
Protect and Eradicate	
ARP 1.3	\$8.95
Faster CLI, more disk space	
Business 1	\$8.95
Calc, Bankn, Badger, AmiGant, HP11 and Loan	
Calc	
Business 2	\$8.95
Mempad, IRA, DisSecretary	
Calendar and StockBroker	
Communications	\$8.95
JRCOMM, ARC, ZOO and useful tips.	
DOS Utilities 2.0	\$14.95
All the best utils yet!	
DTV Still Store	\$5.95
Still frame playback.	
DTV/Graphics	\$8.95
Abridge, Title Generator, sMOVIE, ImageLab and	

more.	
Hacker 1	\$5.95
PowerPacker, Sound Scanner plus many more.	
Super Workbench 1MB	
SID, Dmouse more	\$8.95
Super Workbench 512	
Zippy, Dmouse more	\$8.95
Text Editors	\$8.95
Wordprocessing	\$8.95
TextPLUS, AmigaFox, Calendar Label Print, PrintStudio Lila, GwPrint and Outliner.	

Latest Demos

Hinch 1MB	\$5.50
See the amazing Hinch move in time to the beat. Control his actions. All Australian.	
Vizard 1MB	\$5.50
Vizard 2MB	\$8.95
In the same style as Hinch, now you can make Vizard do his thing. Great animation, digitised frame grabs and sounds.	

Ring for full catalogue.

ORDER FROM

Name
Address
Post Code
Day Time Phone
Payment : Cheque <input type="checkbox"/> Money Order <input type="checkbox"/> COD <input type="checkbox"/>
Bankcard <input type="checkbox"/> Mastercard <input type="checkbox"/> VISA <input type="checkbox"/>
Number <input type="text"/>
Expires <input type="text"/>
Signature
ORDER
Free Animation Disk if over \$50
TOTAL

THE POWER BREAKS THROUGH...



AMIGA ACTION REPLAY

THE WORLD'S MOST POWERFUL FREEZER-UTILITY CARTRIDGE

AMIGA ACTION REPLAY SIMPLY PLUGS INTO THE EXPANSION PORT OF YOUR AMIGA 500 AND GIVES YOU THE POWER TO FREEZE MOST ANY PROGRAM, THEN YOU CAN:-

SAVE THE ENTIRE PROGRAM IN MEMORY TO DISK
Special compacting techniques enable up to 3 programs to fit on one disk. Unique FDOS power means that the programs reload at up to 4 TIMES FASTER than AmigaDOS - even independently of the cartridge.

UNIQUE INFINITE LIFE TRAINER MODE
Allows you to generate more and even infinite lives, fuel, ammo etc. Perfect as a trainer mode to get you past that "impossible" level. Very easy to use.

SPRITE EDITOR
The full sprite editor allows you to view/modify the whole sprite set including any "attached" sprites.

VIRUS DETECTION
Comprehensive virus detection and removal features to protect your software investment. Works with all presently known viruses

SAVE PICTURES AND MUSIC TO DISK
Pictures and sound samples can be saved to disk. Files are IFF format suitable for use with all the major graphic and music packages.

SLOW MOTION MODE
Now you can slow down the action to your own pace. Easily adjustable from full speed to 20% speed. Ideal to help you through the tricky parts.

RESTART THE PROGRAM
Simply press a key and the program will continue where you left off.

FULL STATUS REPORTING
At the press of a key now you can view the machine status, including Fast Ram, Chip Ram, Ramdisk, Drive status etc.

PLUS THE MOST POWERFUL MACHINE CODE FREEZER/MONITOR

MORE FEATURES THAN YOU COULD EVER NEED. HERE ARE JUST SOME:

- Full M68000 Assembler/Disassembler ● Full screen editor ● Load/Save block ● Write string to Memory ● Jump to specific address ● Show Ram as text ● Show Frozen picture ● Play resident sample ● Show and edit all CPU registers and flags ● Calculator ● Help command ● Full search feature ● Unique Custom Chip Editor allows you to see and modify all chip registers - even write only registers ● Notepad ● Disk handling - show actual track. ● Disk Sync pattern etc. ● Dynamic breakpoint handling ● Show memory as HEX, ASCII, Assembler, Decimal Copper Assemble/Disassemble.

REMEMBER AT ALL TIMES YOU ARE INTERROGATING THE PROGRAM IN ITS "FROZEN" STATE WITH ALL MEMORY AND REGISTERS INTACT - INVALUABLE FOR THE DE-BUGGER OR JUST THE INQUISITIVE!

Hardware Peripheral Distributors, 5-7 Railway Terrace, Dry Creek, SA 5094
PO Box 121 Dry Creek, SA 5094. Phone (08) 349 8486. Fax (08) 349 4667.

DEALER ENQUIRIES
WELCOME

PUBLIC DOMAIN C O M P I L A T I O N

Fix Disk

If *Disk Doctor* and *Disk Salv* can't recover your disk then *Fix Disk* probably can. The best disk repair available.

Fast Disk

Reduce head movement, boot-up, validation and loading times by 50%. A very handy utility!

File System

This program list all the information about the device available to AmigaDOS, that is, the disk drives. It displays the various characteristics about the drive such as its geometry and the memory it is currently using.

Where Is?

Searches through your entire drive and locates the specified file name.

TrackSalve

CLI control over various aspects of your disk drives.

• A software NO CLICK feature

• Read Only simulation - just as if you had made the diskette write-protected.

• Track Salvage - allows reading of those tracks which AmigaDOS would have given up on long ago.

• Constant validation facility.

• Other low level controls of your floppy drives.

Pop Info

An iconified INFO screen available from the WorkBench.

MyMenu

Add your own menu options to the WorkBench pull-down menu.

DUS

Makes the CLI almost obsolete, a file utility program that will make you wonder how you ever did without it.

Zippy

A quick easy to use file copying system.

MSH

A MS-DOS disk reader and formatter. Why buy Cross-DOS when you can have this utility for a fraction of the price? Transfer files to and from MS-DOS disks. Probably the best PD program we have seen in a while.

MRBackup

Backup and restoration utility for your hard disk, supports multiple levels of compression, you should not be without this one if you have any important information on your harddrive.

SysInfo

A benchmark and general information screen that rates your computer versus the various Amiga models with and without GVP accelerator boards.

Disk Talk

A cute little hack that plays an IFF sound sample when a diskette is inserted or ejected. Comes with samples.

Dos Error

A Database of the various AmigaDOS error codes so now you can actually know what error 223 means!

FileMaster

A full-featured track and sector editor with in-RAM editing facility.

And Much More!!



THEME
DISK

TWIN DISK SET

Only
\$14.95

inc. postage

AMIGA DOS UTILITIES V.2 ORDER FORM

Send cheque or money order made out to Prime Artifax, or use your credit card.

Name: _____ Day Phone: _____

Address: _____

Post Code: _____ Credit Card (tick) VISA M/C B/C

Number: Exp: /

Signature: _____

OR BY PHONE: (02) 879 7455

POST TO: Prime Artifax, P.O. Box 288, Gladesville

AMIGANET

Ethernet network for Amigas

- Industry standard Ethernet Architecture.
- Networking software included.
- True peer-peer Amiga Networking - access any screen, hard or floppy drive, serial or parallel printer attached to any Amiga on the network.
- A500 version - ABS injection moulded case connects to expansion port of computer.
- A2000 version enhanced with 64Kbytes data buffer with 16bit datapath assisted by a DMA sequencer. (For high traffic centralised facility or a file server).

AmigaNet A500 \$700.00 (ex tax)
AmigaNet A2000 \$900.00 (ex tax)

GPterm-Amiga V4

Australia's most popular Amiga telecommunications software

- Mouse or keyboard driven, fully multitasking from CLI or workbench, User defined 'configurations' for different services, 110 page manual and more.
- Full terminal emulations for videotex and ANSI/Amiga, IBM, VT100 ANSI terminal emulations for Viatel & Discovery 40/80, Pegasus and other text based services as well as BBSs.
- File transfer with XModem, YModem, full ZModem, SEALink, KERMIT, Punter and ASCII protocols. Batch transfers supported.

Packaged with an extensive manual, not copy protected.

GPterm-Amiga V4 \$99.00

Also available: Amiga and C64 Modem packages, GPterm-64 (videotex and ascii communications for C64/128, rrp \$59.00). Full range of NetComm and AVTEK modems.

Available from your local dealer or direct from

GP Software

Specialists in Amiga Communications
21 Aloomba Rd
ASHGROVE Qld 4060
Ph (07) 366 1402

MEGADISC

TO MAKE THE MOST OF YOUR AMIGA

New Toll-free Number for ORDERS ONLY - 008 227418

MEGADISC was designed to help you really learn how to use your Amiga. Tutorials, articles, reviews, hints and tips, useful software, and much more are included to help both the beginner and the veteran to use the Amiga more productively. Not too serious and not too lightweight, MEGADISC entertains you while you learn. Available as single issues, subscriptions of any 3 or 6 issues (past or future), or as a TRIAL PACK (including MEGADOS, our Amiga Manual-on-Disk and MEGADISC 18, and our Catalogue-on-disk). If you get a TRIAL PACK, you can subscribe later for the lower rate mentioned below. Megadisc subscribers get lower prices on all our products, including over 1700 public domain disks. Every Megadisc has the latest VIRUS-KILLER.

MEGADISC 19 AVAILABLE mid-Nov.!

CALL & ASK FOR YOUR FREE CATALOGUE-ON-DISK!

Special offers!

THE ENTIRE MEGADISC SERIES

Order MEGADISC 1-18, MEGADOS and 4 free Public Domain Disks for \$190!
That's 23 information-packed disks! (You can order your PD disks later.)

MEGADOS

AmigaDos Manual-on-disk, with all you need to know about CLI, Workbench 1.2, 1.3 and ARP described in layman's terms for \$19.95. Price for current subscribers \$13.95

TRIAL PACK

MEGADISC 18, MEGADOS, AND CATALOGUE-DISK for \$29

PAST AND CURRENT SUBSCRIBERS - RE-Subscribe for less!

\$45 instead of \$50 for a 3-issue subscription (free PD incl.)

\$80 instead of \$90 for a 6-issue subscription (free PD incl.)

PUBLIC DOMAIN DISKS FOR \$5 EACH - \$4 FOR SUBSCRIBERS

All our 1700 Disks are fully described on our FREE Catalogue-disk

Buy 10 PD disks, get one free - ie, 11 PD disks for \$40 or \$50!

GAMES 10-DISK-PACK & PD 10-PACK FOR \$50 each, in plastic disk box

WE ALSO TAKE BANKCARD, MASTERCARD and VISA ORDERS BY PHONE OR FAX
CONTRIBUTIONS OF ANY KIND ARE MOST WELCOME - PLEASE CALL

Non-Subscribers: Please add \$2 P & P if ordering Public Domain disks only

I enclose a Cheque/Money Order for or please charge my Creditcard:
Mastercard/Bankcard/Visa No: Exp:
Please send me: Catalogue-on-Disk AT NO COST: TRIAL PACK \$29
ANY 6 issues of MEGADISC for \$90 (please specify): [\$80 for re-subscribers]
ANY 3 issues of MEGADISC for \$50 (please specify): [\$45 for re-subscribers]
MEGADISC 1-18 and MEGADOS and 4 P.D. disks for \$190:
The 4 free PD disks I want (2 in the case of a 3-issue sub) are:
OR please send your Catalogue-on-Disk now and I will choose the remaining disks later:
10-DISK GAMES PACK for \$50: PD 10-Pack in box for \$50
BEGINNER'S PACK (3 DISK SET for \$29)
MEGADOS AMIGA DOS MANUAL-ON-DISK FOR \$19.95 FOR CURRENT SUBSCRIBERS \$13.95
3 DISK ANIMATION SET for \$15 OTHER ORDERS : Please attach.
Signature:
Name:
Address:
Telephone: Date:

Send to: MEGADISC, P O BOX 759, Crows Nest 2065.
Telephone: (02) 959 3692 (all hours) FAX: (02) 959 3525

WHO **WANTS** TO BE AT YOUR **SCHOOL**
SO **MUCH** THEY'VE **SPENT** OVER
HALF A MILLION **DOLLARS** DEVELOPING
EDUCATIONAL **SUPPORT** MATERIAL?



Commodore computers, from the extraordinarily versatile Amigas to the totally MS-DOS compatible PC range, have always been exceptional value for money.

Which makes them an extremely attractive proposition for schools.

Now, with over half a million dollars invested in the development of educational support material, they

are even more so. For more details, call this number, free: 008 023 233.


Commodore

TOTALLY COMMITTED TO EDUCATION

Sponsors of the 1990 World Conference on Computers in Education.

Phil Campbell's Entertainment

All the latest news and views from the world of entertainment

Aussie Puzzle from Whites Computers

White's Computers (02) 634 6636 are distributing a nice little locally produced game called *BrainScrambler*. Written by Ron van Tilburg, with art by Sandra Smith, the aim of the game is to unscramble pieces of a picture and put them back together. There's a selection of top class IFF artwork to play with, and you can even add your own pictures. This is a game that will certainly appeal to jigsaw freaks, and you can chop your pictures up into a variety of formats, from 4 by 4 upwards. The control system is nice - all actions are carried out with the mouse. Incomplete puzzles can be saved for later if your brain is getting too scrambled. A nice little local product, and well worth the \$32 recommended retail price.

Prince of Persia in Amiga format at last

One of the best IBM games this year is *Prince of Persia* from Dataflow. Now the Amiga version is available, and it's

nice enhanced. Rescue the beautiful princess before she's forced to marry the wicked Grand Vizier! Top game - watch for it soon.

Wrath of the Demon out now

Wrath of the Demon is a new game from Questor which combines state of the art multi-level parallax scrolling with spectacular graphics, animation and playability to bring you one of this years hottest graphic adventures. What a mouthful!

Produced by Readysoft, makers of *Dragon's Lair* and *Space Ace*, *Wrath of the Demon* features 13 sections with over 550 screens full of action, 100 monsters, more than 100 colours on screen at once, and an incredible frame rate of 60 frames per second. There's stereo sound - up to 140k of music and sound effects for each scene, and the graphics are wonderful, with animated monsters filling up to half the screen. The demo looks great!

Mindscape Thunderstrike Competition winners

Lot's of entries for September's *Thunderstrike* Competition. Hard, wasn't it? After all, you had to actually write your name and address on an envelope. Bad luck to Laetone Gravolin, who sent in the most entries, but didn't make it through the draw! Better luck next time. So here are the three lucky winners:

James Gordon of Singleton
Yokeching Chan of Bellevue Hill
Chris Wootton of Mornington Heights, Tas.

Well done guys. Your prizes should be there by the time you read this.

Thanks to Mindscape for the prizes.

New AMOS newsletter

If you've bought your copy of AMOS, the new game creation language, then you really should join the AUSSIE AMOS CLUB. There's a top class newsletter produced by club president Neil Miller - all done on the Amiga, of course! The latest newsletter has details of the AMOS "Abilities Register," a database that will put programmers in touch with computer artists and musicians. There's plenty of other good stuff too! For more information contact Neil Miller, PO Box 253, Rydalmere NSW 2116.

Mindscape Competition Of The Month

\$700 worth of prizes to be won!

Yes, folks - we've got an amazing 10 copies of THE KILLING GAME SHOW to give away! It's one of the best Amiga games yet from Psygnosis, and you've got the chance to win your very own copy. What have you got to do? Simple. In keeping with the "game show" theme, write the names of all the hostesses from *Sale of the Century* and *Great Temptation* in the correct chronological order on the back of an envelope. The first 10 correct entries drawn at random will win their very own copy of *The Killing Game Show*, valued at \$69.95. OK, so there are only \$699.50 worth of prizes. Close enough!

Clearly mark your envelope "NOVEMBER COMPETITION", and send it to Phil Campbell, PO BOX 23, Maclean NSW 2463 by November 30th 1990. You can also fax your entries on 066 452 060.



Amiga Tips

Dogs of War

Andrew "Turrigan" Strika says if you're stuck, type TIMBO F5 for unlimited lives.

Action replay goodies

The Amiga Action Replay cartridge has only just hit the streets, and the tips are rolling in already. Try some of these, courtesy of Jason Strudwick of Junee, NSW:

Xenon II - Change memory location CCB to value FF for infinite lives, and change memory location CCD to values between 00 and 09 to change scrolling speed.

Rick Dangerous - Change locations 44972, 4496e and 44970 to values below 50 to change lives, bullets and dynamite settings.

Rainbow Islands - Change E6D3 to 0F for infinite lives.

C64 Hints.

Here are some golden oldies - sorry, we've lost the names of the sender-inerers. If you sent any of these, pat yourself on the back and give yourself a nice warm feeling. By the way, C64 freaks, look out soon for a special hint section just for you!

Robocop

Hold down F,G,H,J and move the joystick in the direction you are facing. If you are facing right hold down the keys while pushing right. This moves you to the top of the screen where you can't get hit by bullets.

New Zealand Story

Hold down TRY CHEATING keys (including space bar). The border should turn grey. Now you have infinite lives and the ability to skip levels by pressing CTRL and left arrow key. You still have to fight off the end of level guardians. When fighting the last bad guy (the seal) try and get behind him where he can't shoot you by passing through him when he's not firing. When you're behind him shoot the balloon on his head lots of times.

Gemini Wing

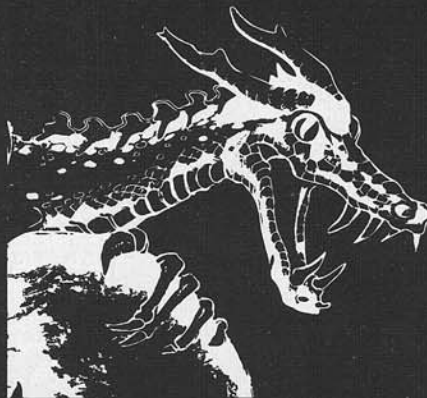
On the title screen press P and enter any of these passwords to start at the respective round.

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

Platoon

In the tunnel section when it says to go to side B and press fire just press without turning the disk over and it loads the jungle section.

DUNGEON QUEST



A NEW DIMENSION IN STATE-OF-THE-ART
INTERACTIVE COMPUTER GAMES.
TO BEGIN YOUR SENSATIONAL INTERACTIVE
QUEST IN SEARCH OF THE SHARD OF
GRA-MAG.

PHONE 0055 11282

PRIZES TO BE WON!

SYN 800 AADAR 25-57C/MIN

ENTERTAINMENT LETTERS

Letters about all sorts of things this month, with plenty of readers using our new fax-a-letter service. Remember, entertainment letters only to Phil Campbell, PO BOX 23 Maclean NSW 2463, or fax 066 452060. Get writing!

Competition Complaint

Dear Phil,

I will start off with a complaint about the August issue competition. The entries closed 20th August, and that's when I got my mag. Could you please give us over in WA a bit of a chance?

Thanks for the great review of Wings of Fury. I just popped down to the computer store and bought a copy - it's very addictive. I also want to congratulate you on bringing percentages into your reviews.

Yours sincerely,

Andrew "Turrigan" Strika

Ed: Sorry about the early closing dates! The problem is that if we don't close by around the 20th of the month we miss the deadline for the next issue, and that means the winners will have to wait another month for the results. However, your plea will be heeded, and we'll extend our competition closing dates so everyone has a chance to enter.

F-29 off target

Dear Phil,
I have been collecting ACAR since August 1989 (not long, I know) and the standard of your section has risen 100 fold. You have stopped that nasty constancy of earlier times of giving all games good reviews. Quickshots is an excellent idea.

One problem - I recently purchased *F-29 Retaliator*, but I found the air to air missiles had a habit of missing their targets. This is alright on lower levels, but with limited ammo it becomes extremely annoying. I have had the game for a long time now and I am a veteran of flight sims. I heard about a bad batch of F-29s going around. Could that be the problem?

Andrew Cumpston,
East Malvern Vic

Ed: Thanks for your comments. I'm glad you think we're improving.

One reason most of the reviews you read are fairly positive is that we haven't got space to review all the rubbish that's going round. In other words, most of the time we choose to review the best software rather than the worst. And obviously, most suppliers don't bother sending us their "dogs." Your problem with *F-29*, disks from the faulty batch flash a message in the top left corner of the screen asking you to "insert the original disk", and only short flights are possible. Clearly, that's not the problem. Can other readers help?

Mapped out

Dear Phil,
You said not to send in maps because you couldn't reproduce them in the magazine. How about making copies available on request, similar to the free hint sheets in the Adventurers Realm section. Secondly, how about keeping the hall of fame strictly for scores - no cheats, pokes or cartridge aided scores?

David Marsh
Mt Druitt NSW

Ed: Michael Spiteri's Free Hint Sheets are a remarkable service to Adventurers. They take up a heap of time, and cost quite a lot to produce - all of which Michael does out of the goodness of his

HALL OF FAME

AMIGA

ARKANOID	976,548	Kami. Andy
BATTLE SQUADRON	99,999,999	Amos Burbidge
BLOCKOUT	36,455	David Marsh
BOMB JACK	200,680	David Thompson
BUBBLE BOBBLE	1,200,460	V. v d Heyden
BUGGY BOY	103,350	David Thompson
CHASE HQ	4,851,590	Juris Graney
CONT. CIRCUS	4,529,690	Amos Burbidge
CRAZY CARS	84,006,720	Bill Horsley
CRYSTAL HAMMER	43,847	David Thompson
CYBERBALL	475,000	David Marsh
DENARIS	53,900	Peter Evans
DRAGON NINJA	204,880	Matthew Mantle
DOUBLE DRAGON	124,630	James Knight
ELIMINATOR	246,570	Greg Munro
GEE BEE AIR RALLY	307,466	Kamikaze Andy
HYBRIS	1,618,452	Matthew Mantle
IMPOSSIBLE MISS.	66,380	Diane Unwin
INDIANA JONES	completed	Phillip Nicol
ISS	1,420,450	A G Smyth
KARATE KID II	52,000	Robert Dunn
LEATHERNECK	83,300	Owen Webster
MAJOR MOTION	50,658	Owen Webster
MENACE	996,481	Kami. Andy
MINDWALKER	306,214	P Schumacher
MOUSETRAP	64,817	Matthew Mantle
OPERATION WOLF	344,800	John Boyle
OUTRUN	11,102,200	Brad Stewart
OFFSHORE WARRIOR	626,345	Jacob Booth
PACMANIA	3,250,140(c)	Amos Burbidge
PINBALL MAGIC	332,390	Tracey Chilcott
PIONEER PLAGUE	35,412	Keir Sooby
PLUTOS	129,450	David Rich
POPULOUS	201,600	Nathan Allen
POW	612,865	David Thompson
RAMPAGE	111,600	Kamikaze Andy
SIDEWINDER	811,250(c)	Amos Burbidge
SILKWORM (Heli)	1,186,000	Angelo Augustis
SILKWORM (Jeep)	515,100	Andrew Barker
SKWEEK	715,940	Stephen Lander
SPACE ACE	22,140	Neville Clarke
SPEEDBALL	17,650	Amos Burbidge
STARWARS	5,722,822	Chris Mings
STRIDER	113,950	Kamikaze Andy
SUPER CARS	13 races	David Marsh
SUPER HANG-ON	25,042,850	David Worthy
SWORD OF SODAN	364,750	Kamikaze Andy
T.M.N.TURTLES	287,300(c)	David Rich

TEST DRIVE	112,915	Wayne Haesler
TEST DRIVE 2	307,910	Amos Burbidge
TETRIS	10,101	Cheryl Marsh
TETRISX	Level 103	Sally Pollock
TURBO OUTFUN	100,260,819	Matthew Mantle
TV-SPORTS F.B.	189-0	David McKinney
TYPHOON	54,255	Owen Webster
VIRUS	7,131	Amos Burbidge
WHIRLIGIG	28,210	Nathan Allen
XENON II	1,007,830	Kamikaze Andy
ZOOM	58,903	Sally Pollock

COMMODORE 64

BATMAN	330,920	Simon Watford
BANGKOK KNIGHTS	36,800	Nick Van Heeswyk
BOMB JACK	344,560	J Jacobs
BUBBLE BOBBLE	1,009,857	Kishore Ludbey
BUGGY BOY	118,750	Paul Millward
CHASE HQ	9,220,121(c)	ICEMAN
DOUBLE DRAGON	22,840	Joshua Smith
DOUBLE DRAGON II	255,190	Nick van Heeswyk
FAST BREAK	136 to 9	Chris Byrne
GIANA SISTERS	81,981	Russell O'Neill
GRYZOR	203,900	Paul Millward
HAND. MARADONA		Nick Van Heeswyk
HAWKEYE	59,000	Nick van Heeswyk
IKARI WARRIORS	267,800(c)	Iceman
INT. KARATE	139,300	Paul Millward
LAST NINJA II	34.2 sec	Nick Van Heeswyk
OPERATION WOLF	168,789	Kishore Ludbey
OUTRUN	6,438,787	Kishore Ludbey
PAPERBOY	19,750	Royston Diaz
QUE-DEX	639	Chris Byrne
R-TYPE	684,200	Nick van Heeswyk
ROBOCOP	82,250	Tim Lockwood
ROLLING THUNDER	222,740	Iceman
SALAMANDER	235,300	Paul Millward
STREET FIGHTER	127,050	Chris Byrne
SUPER CYCLE	212,210	Iceman
TEST DRIVE	24,790	Jason Denham
THUNDERBLADE	1,734,040	Troy Morrison
THUNDERCATS	57,500	Chris Byrne
TARGET RENEGADE	330,450	Chris Byrne
UNTOUCHABLES	70,230	Simon Watford
WONDER BOY	237,650	Kishore Ludbey

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

heart. Bad luck. I'm not nearly that nice. Seriously, though, we really haven't got time to keep track of that sort of thing. Maybe if we could just get another secretary or two ... ? As for the high scores, you're absolutely right. Anyone who has sent in high scores gained using cheat modes or pokes has defeated the purpose of the Hall of Fame. After all, what's clever about cheating? So here's an appeal to all high scorers. Be honest. OK?

Hopeful six year old

Dear Phil,
My six year old son is the sole user of the Amiga, mainly because I can't get anywhere near it while he is on it. He

loves it and I am about to make it worse for myself. Recently he borrowed a game called *Giana Sisters* and he loved it. My problem is, I can't find anyone who stocks it, or is able to supply it. Can anyone help?

Yours truly,
R. Mundy, Melton, Vic

Ed: It's quite a while since *The Great Giana Sisters* were a hot item. Maybe a reader will be happy to part with an old copy - genuine, of course. Write to Mr Mundy at PO Box 585, Melton, Vic, 3337, if you can help.

RORKE'S DRIFT

ANDREW PHANG finds himself in a no-win situation as he battle for survival, read on ...

Remember "Zulu", the movie with the famous battle scenes between the South African Zulus and the British? The movie was based on actual events in South Africa in 1879, where a small command of British troops faced the wrath of the Zulu warriors. Since Michael Caine is on holiday, it's up to you to assume the role of the British Commander and take charge over the defence of *Rorke's Drift*. Are your men up to the task, old chap?

Rorke's Drift is a very playable little effort from Plato, the strategy branch of Impressions, a fairly new software company based in England. First off, the graphics are polished and nicely animated, with 80 frames depicting each of the 137 soldiers kneeling, running, standing, or fighting in any of the eight compass directions. In fact, the soldiers and the Zulus look very cute on my computer screen, which is unusual given the nature of this game. Unusual but enjoyable, as each battle (especially hand to hand combat) is entertaining in itself. I did find it difficult, however, to order my troops to open fire on a group of Zulus that looked like multiple clones of Lenny Henry.



The interface used in *Rorke's Drift* also deserves some mention, as every move is executed using easy-to-learn icon control. If you want your soldier to move to a certain field position, simply click on the soldier's "move" icon, then click on the chosen location. Similarly, click on the "fire"

icon and your soldier will unload a volley of bullets at the unfortunate Zulu.

Besides icons that control the actions of your troops, there is also a Red Cross icon (which displays the number of dead, wounded, and able soldiers on each side), a Clock icon (which speeds up play), and a Map icon (which naturally displays an overhead view of the Drift).

A very useful feature in the game is the "repeat order" command. As you have to take control of all 137 individual troops in your regiment, making decisions for each and every individual soldier can be a very tiring task. With the "repeat order" command, all you have to do is decide on the actions of one soldier, then use "repeat" to program other soldiers with the same instructions.



With odds of 40 to 1 against your pitiful British forces, the best possible result you can hope to achieve is survival. Indeed, after the game starts with the clock at 4:30 PM on January 22, 1879, you have exactly one hour (game time) to prepare the defence of the Drift and move your soldiers to their positions before the Zulus launch their attack. If your troops manage to hold out until the next morning, then reinforcements arrive and you've won the game. If not, be prepared to be skewered, seasoned, and roasted on a Zulu barbie.

The designer of *Rorke's Drift*, Edward Grabowski, has obviously put a lot of thought and effort into this game. There

are several different classes of soldiers, from privates to sergeants to medics. Each of these classes have different abilities, for example a private is skilled in fighting while a quartermaster's task is to fill the ammunition bags of the troops. Further testimony to the designer's research is the choice of playing the game with the enemy Zulus adopting the exact battle tactics used by the real Zulus in 1879. Of course, you might decide to allow the Zulus a better fighting chance by choosing the "random attack" option. After all, they did lose to the Brits in the end.

Rorke's Drift is a game that requires you to have several hours to spare, as you will become engrossed with the different options and tactics available to your troops. It is very much a tabletop wargame, with pixels replacing the "cowboys and Indians" figurines usually used in such games. It may be cute, that is because, besides all of the tactics and strategy, *Rorke's Drift* is meant to be a fun experience.

The game is an exercise in tactics to be enjoyed by those who are dedicated strategy fans, and those who are just looking for an enjoyable game.



Distributed by:

(02) 748 4700

RRP: Amiga \$59.95

Ratings:	
Graphics:	82%
Sound/Music:	70%
Gameplay:	81%
Value:	82%
Overall:	81%

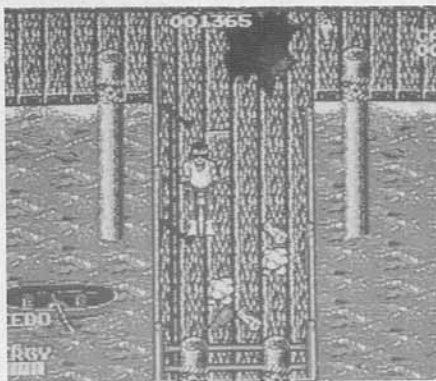


SKIDZ

by Juris Graney

If you've ever wanted to clean up the streets of America, now's your chance. Well, maybe it hasn't been one of your burning ambitions - but if you're riding a BMX or skateboard, it might just be fun.

Skidz is a hot new game from Grem-lin, and that's what it's all about. There are seven levels to complete. The screen displays a view from diagonally above the player, so you can see the top of your head but still see the bike. The first level puts you on the streets - then there's the park, a building site, china town, the canal, the boardwalk and last but not least a race. There's also a shop where you can buy goodies to improve your bike or skateboard.



In each of these levels you have to collect food like fruit, hamburgers, chocolate, cakes, and ice-cream to keep your energy up, or you'll die. Sounds like my kind of diet! There are hidden bonuses dotted around the levels, giving you extra points, time or energy, and there's a special task associated with each level. The task item must be collected and delivered to the correct destination further down the level. Points are awarded when



these items are delivered. The items you can collect are parcels, fish food, newspaper, chopsticks, tub of maggots and bucket and spade. And of course, you also have to collect rubbish and place it in the bins. You can't finish a level if you haven't got 75% of the rubbish that has passed you. This isn't so hard to do, so don't sweat. The hard bit is putting the stuff in the bins without crashing.

This might all sound very complicated - because it is! And there's more. Watch out for pigeons, cats, dogs, workmen in manholes, drunks, soccer balls, rabbits, and muggers, just to name a few. If you crash into anything your energy level goes down.

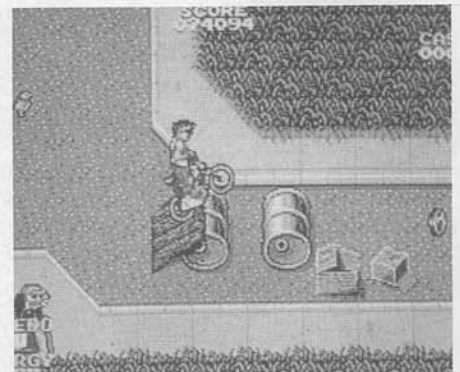
A game would not be complete without stunts that you can perform. Each time you do a stunt you are awarded money that you can use in the shops. There's also money scattered along the track. The last stage is the best - the race. In the race you see yourself and a competitor next to you. This is hot fun! First you have to watch out for tyres and speed bumps - you can only jump over them if you've got enough speed. You can take a number of short cuts, but some

lead to traps. When you finish the race the computer will tell you your placing and then it is off to the main menu again.

Skidz is a game I really enjoyed. My only complaint is that it's a bit slow to load. But the graphics are great, the scrolling is smooth, and the sound track is the hottest thing I've heard on my computer for a long time. Great work, Grem-lin!

Distributed by:
Mindscape
(02) 899 2277
RRP: Amiga \$ 59.95

Ratings
Graphics: 81%
Sound : 85%
Gameplay: 79%
Overall : 82%



The year is 2015, and Tony Barber has just retired as host of Sale of the Century. The show's 35 year run was a record, though ratings admittedly dropped in the last fifteen years or so. Alyce might have looked okay in those mini-skirts and fishnet stockings back in the '90s. But not now. Besides, viewers these days seem to like a bit more violence. Most people watch *The Killing Game Show* instead.

The rules are simple. Fight for survival, and first prize is your life. It's exciting stuff, and great viewing - especially if you've got one of those new 3-D holovision sets. So put your feet up, switch on the HV and relax for a while.

As you'd expect, contestants rarely volunteer for *The Killing Game Show*. It's more a matter of conscripting them. Us-

Psygnosis, one of Britain's leading software houses. Their titles have been coming thick and fast, and they're getting better. Until fairly recently, Psygnosis have had a reputation for producing technically excellent games with brilliant Roger Dean-inspired graphics - all they lacked was decent gameplay. That's all changed. *The Killing Game Show* is fast, slick and compelling. The technical polish is still there, the graphics are still top class - and above all, the game is fun.

A brilliantly animated five minute opening sequence fills one complete disk in the two disk set. It's certainly atmospheric, though I suspect by next week I'll be wishing I didn't have to sit through it every time I boot the game. The credits roll, the show begins, and I'm at the bottom of the pit. In my biomech armour

pool of glistening slime is rising fast. I move to the right, my biomech legs working in an ambling, spring-like gait. A bit of extra bounce and I'm on the ledge above. Suddenly, I'm under attack by a wave of flying nasties. My built in weapons reduce them to fragments, but not before they cause some minor damage.

Graphics in *The Killing Game Show* are highly detailed. Animation is nice. And the sound track is brilliant. I've just hooked my Amiga up to my old hi-fi system and the effect is sensational. The music is fast paced and tense, and the optional sound effects add realism and drama.

Psygnosis have certainly got it right this time. *The Killing Game Show* is a top class effort, and I highly recommend it. □

Are you just dying to be on TV? Well here's your chance. Yes, it's 21st century entertainment as PHIL CAMPBELL reports on ...

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

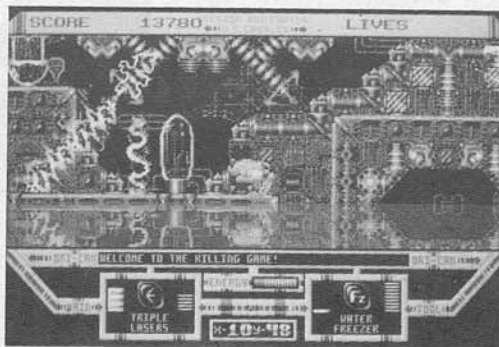


ally they're crims brought in by the Police Corporation, lawbreakers and dissidents who deserve everything they get. Before the game they're surgically implanted in an armoured bio-mech unit to give them a fighting chance - then they're lowered into the pit.

The pit. Bristling with cameras to catch all the action, and swarming with artificial life forms that are specifically designed to kill. The pit is gradually filling with a deadly liquid, so the contestant is forced to battle onwards and upwards, jumping from ledge to ledge as he fends off waves of attacking insectoids.

The Amiga version of *The Killing Game Show* has just been released by

I'm unrecognisable - I look like a cross between a frog and a tractor, which my wife says is a definite improvement. The



Ratings:
Graphics: 85%
Sound: 94%
Gameplay: 81%
Overall: 87%



QUICKSHOTS

A quick look at what's new in the world of Games

STREET ROD

Street Rod is a car racing game with a difference - and loads of atmosphere as well. It's set in the days when cars were really cars and milkbars were really milkbars. First you'll have to buy your car - look through the classified ads in the newspaper on the screen. Then get to work in the body-shop - maybe a new paint job in something tasteful like hot pink. Then it's out with the engine. A workshop screen lets you pull it to pieces, make timing adjustments and add high performance parts.

Then it's off to the race track. A cruise down the main street to show off your wheels will always result in a challenge - and usually there's a little wager on the side.

The race sequences are difficult, and you only get one chance. Crash your car and it's back to the body repair shop. Not only that, your bank balance drops alarmingly. You can use Joystick or mouse controls - I'm still not sure which I like best, but I suspect the joystick gives the best "feel".

Graphics are very nice, music is atmospheric - all in all, *Street Rod* is a hot new game. *Street Rod* is distributed by ECP, with a recommended retail price of: Amiga \$49.95. C64 \$39.95

Ratings

Graphics 85%
Sound 81%
Gameplay 80%
Overall 82%



OPERATION STEALTH

First there was Cinemaware. Then there was Cinematique. I guess it's the French version of the same idea - and the idea is a good one. Games that play like movies. The cinema experience on your home computer. The chance to put yourself in the movies, just like the girl in the Twisties ad. Not only does the plot come to life, but you actually control it. *Operation Stealth* is the second game in the Cinematique series, and it's nicely done.

You play the part of a top class spy, sort of a 007 clone with a lot more class. Well, when I'm playing the part, anyway. Your task is a difficult one - an F-19 Stealth Bomber has been stolen by a two-bit South American republic, and you've got to get it back.

As the game begins, you find yourself arriving at the airport. A customs official stands at the gate. It was here that I ran into my first difficulty - it took me an hour to work out how to use the passport in my briefcase. When I finally presented it, I was ar-

rested for being an Americano. Mmm - should have used the forging machine under the false lid to create a British passport first! Easy to say now - but again, it took another hour or so to work it all out.

If you're a keen adventurer, *Operation Stealth* is a game you'll love. The graphics are bright and atmospheric, and everything happens in real-time. It's what you'd call an "arcade adventure" with elements of both game styles. Sound effects are top class - amazing what the digitised sound of footsteps can add to the realism of a small figure walking across the screen!

I've still got a long way to go, but so far I've only got one complaint. Why do games like this make me feel like an idiot? Distributed by OZISOFT, *Operation Stealth* has a recommended retail price of \$59.95.

Ratings

Graphics 80%
Sound 86%
Gameplay 74%
Overall 79%



Katie's Farm & McGee

What sort of game would delight a two year old and fascinate a five year old? A game like *Katie's Farm*. Or *McGee*. Both have just been released by Dataflow in their "No Words" series for pre-schoolers. All you need to do is look at the pictures and click with the mouse - easy, and if you're the right age it's a lot of fun too. McGee lives in a house. He wakes up early, and has fun exploring the house. He can bounce his ball, ride his hobby horse, make a phone call and annoy his mum - all he's waiting for is somebody to tell him what to do. The brightly coloured screen shows the current room; a set of smaller pictures along the bottom of the screen are the control points. In his bedroom, there are four actions to choose from - each picture represents a small part of the main display. There's a puppet, a ball, the hobby horse and a door. Clicking on each sets off an animated sequence complete with full digitised sound. You'll hear the door creak, the ball bounce, the cat

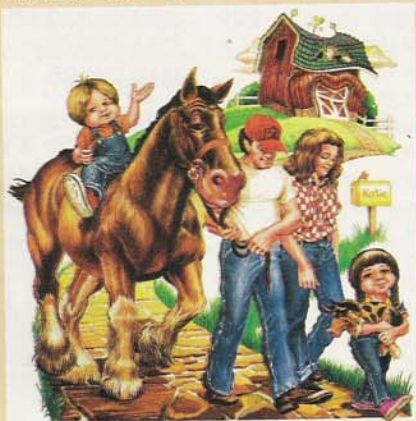
meow - you can even flush the toilet.

Katie's Farm is built around an identical structure - the graphics and sounds have been changed, so this time your pre-schooler can find out about life on the farm.

McGee and *Katie's Farm* are designed to familiarise kids with computers. They certainly work - they're simple to use and beautifully presented. My kids love them both. But beware. They don't come cheap, and there's not a lot of depth. I would have liked a bit more freedom to explore, with a few more rooms and gadgets to play with. Even so, these games are a top class example of what kid's software should be like. Distributed by DATAFLOW, *Katie's Farm* and *McGee* have a recommended retail price of \$69.95.

Ratings

Graphics: 83%
Sound: 88%
Gameplay: 80%
Value: 69%
Overall: 80%



SHADOW OF THE



You've played the prequel. You've worn out the T-Shirt. What now? Yes folks, it's *Shadow of the Beast II*, follow up to one of the most popular Amiga games ever released.

I'll be honest. I didn't really like *Beast I*. Somehow I just couldn't see the point of waiting for two or three minutes every time I wanted to restart the game - and that was often, because I got wiped out regularly. Naturally, there were good reasons for the games sluggish performance - like the huge hunks of data being dragged off the disk to produce those delicious graphics. *Beast II* is more of the same, though a conscious effort has been made to speed things up.

The story is simple. After *Beast I*, you turned back into a regular guy. But now some creepy wizard-dude has kidnapped your baby sister

from her cot. You get to see it all in the blood chilling opening sequence - the best game intro I've ever seen.

Now it's just a matter of strolling across the parallax-scrolling landscape, fighting off all sorts of horrors and saving kid sister. Not so easy - I'm still spending more time between games than actually playing.

Graphics and sound effects set new standards - the music track is amazing, with raunchy lead guitar riffs and a pulsing beat. And guess what. There's even a new T-shirt. Distributed by MINDSCAPE, the recommended price of *Beast II* is \$79.95.

Ratings

Graphics 86%
Sounds 87%
Gameplay 77%
Tee shirt 78%
Overall 83%



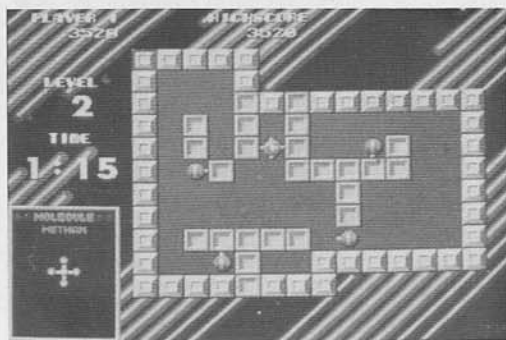
PHIL CAMPBELL reports on a game that could make chemistry fun. An impossible claim? Read on to explore the puzzling world of ...

ATOMIX

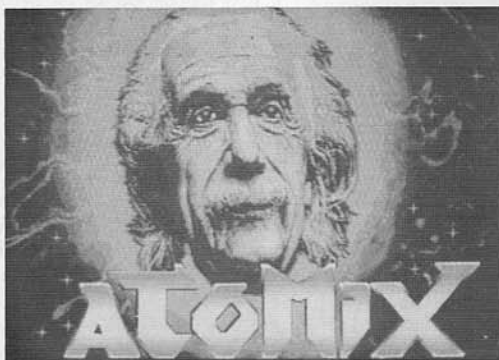
Chemistry was never my best subject. I still break into a cold sweat whenever I think about Chemistry 1A - the low point of my University career. Atoms, molecules, entropy and enthalpy were just too much for my addled brain to handle. In a word, chemistry and I just never hit it off.

But I'm willing to let bygones be bygones. Chemistry has just become fun. Thanks to *Atomix*, a neat new game with an educational twist, I've been rehabilitated.

Before you pick up your hat and go home, it's not as fearsomely intellectual as it sounds. The aim of the game is simple. Your screen displays a simple maze. Scattered around it are atoms, colour coded and marked with their chemical symbols. Each atom has a number of protruding links representing its valency, or potential combining power. All you have to do is link them up to match a small diagram at the side of the screen.



Take water, for example. An oxygen atom joined with two hydrogens, H₂O - the extent of my prior chemical knowledge, except for K₉P, which stains dreadfully if it gets on your trousers. Scattered around the level one maze are two hy-



drogen atoms, each with a single link, and one big red oxygen atom, with a link jutting from either side. A quick mouse click on a Hydrogen atom sends it sailing across the screen until it hits a barrier - the far wall of the maze. From there, I need to move it down through a narrow gap, then along to link with the oxygen. Not so easy. Because like anything else, these objects remain at rest or continue to move unless acted upon by an outside force. In other words, you can't just put them where you want them - you have to bounce them from wall to wall until they're in exactly the place you want. And with a sixty second time limit, it's hard!

Faced with this seemingly impossible task, I did the only thing I could. And naturally, Mrs Campbell solved the conundrum in moments. A few deft flicks, and there it was - a water molecule.

Ethane and methanol are next into the test tube. Hydrocarbons. That was in Chemistry 1B, which was not compulsory. Until now, a dark mystery ... but now I even know how to make them. Up and down, round and round - in fact, the more atoms the merrier, because they give you more staging points for bouncing your bits and pieces.

I'm starting to feel quite educated. Three hydrogens, a carbon, an oxygen and another little hydrogen wagging like a dog's tail. Methanol. Two carbons with a double link with double hydrogen antennae on each end - ethane. Or something like that, anyway.

Atomix is a game that doesn't rely on flash graphics and sound effects. But it's got them anyway. The graphics are neat - a nice title screen featuring an endorsement from Einstein himself, crisp playscreens, solid looking coloured spheres for atoms. Simple, but elegant. Sound effects are simple too, limited to sliding noises and clunks - nothing fancy, but it's all you need.

If you like a good puzzle, I can recommend *Atomix*. And if you're struggling to learn pages of molecular formulae, this could be the perfect way to re-enforce your studies. □

Ratings:

Graphics	75%
Sound	75%
Gameplay	81%
Overall	77%

Distributed by:



(02) 748 4700

RRP: Amiga \$49.95
C64 \$39.95
IBM \$54.95



Rev-head PETER CHRISTOPHER has some fun on the racing circuit with

COMBO RACER

OK gang, put on the leather cos we're taking a ride on the wild side. Make sure the boots are on and the gloves fit tight. Put on the full face helmet and get on that mean, mean bike. Turn the key, rev up the motor, watch the starting lights and get ready to join the international glamour bike racing circuit. Oh, and don't forget your partner. That's right, partner! This is sidecar racing - the harum-scarum sport where it's not just you who needs to be well-balanced, but your partner as well. Some might say you'd have to be off balance to take up this death defying sport.



Welcome to the mad, mad, mad world of *Combo Racer*. You're at the start of the racing season. First select a track - there are eight set up and an infinite number to design yourself (but more about that bonus later). It might be the US Grand Prix in the Nevada desert, a fairly straightforward, fast track you can take on without coming down below fourth gear. Or you might pick a long and winding European track where it's difficult at first to get out of third. The choice is yours. You also decide whether you want the computer to ride in the sidecar or whether you want a human friend to ride with you. If you pick a hu-

man, he or she will work from two keys on the keyboard, throwing the daredevil passenger from right to left while you take hairpin bends on the joystick.

Be warned. This is one finely tuned game and believe it or not a slow responding sidecar rider can throw you right off the track - face first into a cactus on the desert track (ouch) or into a billboard on a city-based track.

Combo Racer is an intelligent and sophisticated game. The detail, from the scenery and instrument panel to the authentic sound, is exciting to say the least. But so are the track designs and the quirky features of each one, like bumps which when taken too fast send you soaring into the air, motor revving furiously and bike totally out of control. If it happens on a straight, that's fine - but on a bend ... crrashhhh!

A small map at the top of the screen displays the course you're racing on and your position on the track. You're the only red dot in a field of 16. Your place in the field, your time and lap counter are shown too. Up until now you could almost say that *Combo Racer* was nothing more than a miniature arcade game. But



its true appeal lies in the number of options available - and the track design fea-

ture adds that creative twist which will excite most players. You can have a relatively straight track, a track full of curves and yet another full of bumps. Design it as long or as short as you like. What about tunnels? Well, just slot them in where you like. Then pick from a selection of scenes - deserts, cityscapes,



or mountainscapes. You can even have snow. It's this feature - and the ability to have a human sidecar passenger - which makes *Combo Racer* unique. Now the only remaining question is what happens when you crash? The programmers have cleverly allowed for such a disaster by deducting a small percentage of motor power every time you come off.

Some of the incredible details of the game include the flying grass clippings when you venture off the bitumen, and the hilarious response of the sidecar rider when you scrape his rear end or helmet on the side of a tunnel wall. The kids think it's terrific.

Combo Racer offers lots of fun. You can keep a record of your races and how you're going against other friends and you can come back to it when and where you like. A good game all round. □

Distributed by:
Mindscape
(02) 899 2277
RRP: Amiga \$59.95

Ratings:
Graphics: 75%
Sound: 90%
Playability: 80%
Addictiveness: 90%
Overall: 80%

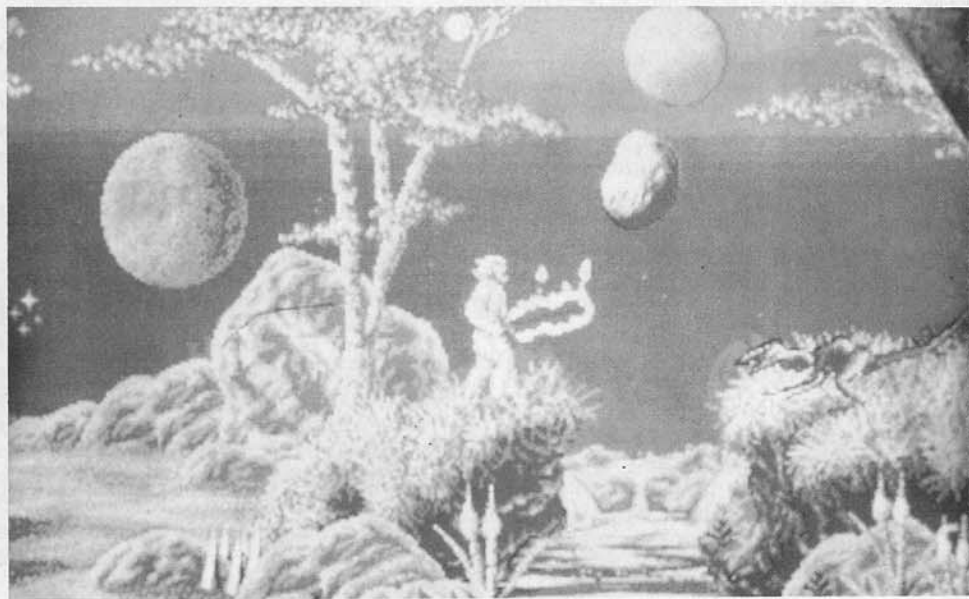


UNREAL

Is this the best Amiga shoot-em-up ever? Some people think so. Read on for STEVE PIKE'S assessment ...

Arabatan, and his lovely wife, Isolde, live near the Great Lake, which forms the boundary to the Land of Nothingness. One day while out walking, they befriended a dragon named Dracus. Isolde was enchanted with him, and he visited everyday. However, one day he did not show, and

We're playing *Unreal*, a fantasy arcade game with eight levels, five in 3D. While trying to save Isolde from Polymorphe, you will be faced with diverse tests of strength and logic. Logic must be emphasised, because there are times when you seem unable to go any further. A careful look around will help unravel



stayed away for three days. During that time, Isolde stayed waiting on the hill for him, and it was then that she was taken by the Master of Darkness, Polymorphe.

He was mesmerised by her beauty and declared he would marry her on Mortenis Day, not long off. If she refused, he would kill all the people in her valley. Isolde was not keen on the idea because she was already married, and also because Polymorphe's face was a ball of fire. So it's good ol' Arabatan to the rescue, riding on the back of Dracus. That's you, by the way - Arabatan.

the clue to advancing. The program has a save game option and this can be used before experimenting, to reduce the headache of playing back to where you were.

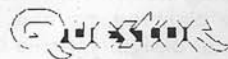
Another interesting feature is *training mode*. When you are dead, you automatically enter this mode to practice the game from where you died, without adding to your score. It gives you a chance to see what's coming up and how to get around it, without worrying about losing or wasting lives. The first part of your quest sees you aboard Dracus, collecting crys-

tals for bonuses. The type of bonus you get will be shown on the screen. In collecting the crystals, you must dodge trees, hills and huge dinosaurs. If you think dodging is wimpy, be gung-ho and blast a path. Shooting dinosaurs gives your score a boost, and clears the way. Your energy is determined by a points value. During this screen, your energy points are shown, but your score is not. Danger and warning signals are also shown on the screen for your benefit, resulting in your eyes trying to look at 20 things at once. To make matters worse, Dracus will only go one speed - fast!! So, don't blink, you'll miss it, or worse, hit it.

Graphics in *Unreal* are very good. There are nice touches like revolving moons and multi-level backgrounds. Programmers have used a number of different screen resolutions - high res for the title screen, chunky for the ultra fast bits and standard for the horizontally scrolling sections. Implementation of sound is excellent. If you turned off your lights and the picture, and turned up the sound, you WILL think you are outside on a summer's night, with crickets doing their thing, a fire crackling and the owls in the trees getting in on the act.

As the saying goes: don't judge a book by its cover, but as for this computer game, its a good indication.....UNREAL! □

Distributed by:



(02) 662 7944

RRP: Amiga \$59.95

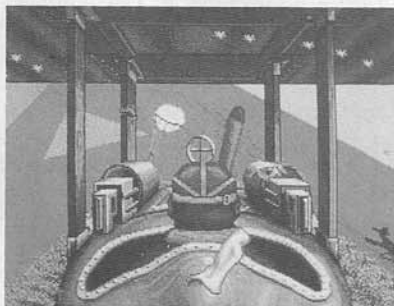
Ratings:	
Graphics	85%
Music	83%
Sound FX	98%
Gameplay	89%
Overall:	88%

UBI SOFT

Feel the wind in your face, hear the purr of your spitfire engine ... experience all the thrills of a World War I flying ace as **PHIL CAMPBELL** reports on the ultimate game ...

WINGS

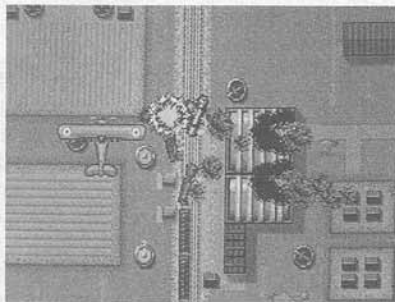
Pilot's Log, May 8th 1916: "The line at Verdun is tightening. Observation balloons are cluttering the skies at Nomeny and providing the enemy with too much information on our aerodrome at Luneville, so this evening a couple of us are going over to Nomeny for a little balloon busting party. Always willing to help our friends." My motor sputters to life as the sun sinks below the western horizon. The time has come. Another mission. Another flight that could be my last. I put the thought out of my mind as the fragile frame of my bi-plane lifts from the runway. In moments I'm airborne, and heading towards the German Observation balloons that are dotted along the horizon.



Without warning, a bright red Fokker drops into view, peppering me with machine gun fire. I bank sharply and swing around to fix him in my sights - a short burst on the trigger sends him scurrying for cover. By now, the observation balloons are in range. Steady hand, keen eye - and the dirigible bursts into a ball of flame. Another successful mission for Waldo P. Barnstormer, hero of the 56th Aerosquadron.

Barnstormer has the starring role in *Wings*, an amazing new Amiga game from Cinemaware. Best known for their

series of "interactive movies" - games that put you in the lead role of a simulated movie as it unfolds around you - Cinemaware have diversified into bigger and better things. And boy, have they done it well!



Wings has a much higher action quotient than previous "interactive movies" - more thrills and less strategy. To my mind, they've struck the perfect balance, making *Wings* one of the top games of the year. In total there are 230 authentic missions, including strafing runs, dog-fights and bombing raids - classic "Red Baron" material that will have you twisting and turning in your seat as you try to drill your opponents full of holes. After several hours play - and a little cheating - I'm still only up to mission 19, so there's plenty of action crammed onto the two disk set.

Between missions, you'll get a genuine feel for airforce life. You'll meet the fiery Captain Farrar - if you fly like me, he'll dress you down regularly. Quite unreasonable, really - after all, I've only ditched five planes. A leather bound journal automatically records your wartime experiences, and captures the ambience of the era perfectly. Minor sub-plots and mundane details of life on the front line are woven together in a way that really brings the game to life.

Graphics are excellent. The clever mix of filled-vector and bit map styles gives an unequalled sense of realism. The screen displays a view from directly behind the pilot, with the upper wing of your bi-plane spanning the top of the screen. Between the struts you have a clear view of the action, including enemy planes and the pleasant rural landscape below. As you bank and turn, the scenery spins past at an alarming rate. The effect is so convincing that you may need to keep an air-sickness bag on hand beside your computer.

As you'd expect, there are no high-tech frills in your cockpit. In fact, there's no instrumentation at all. You'll soon discover exactly what it means to fly by the seat of your pants. The sound of your engine provides essential cues - bank or climb too steeply and you'll hear it sputter and cut out. With luck, it will restart as you nose-dive towards the wheat fields below. But maybe not.

Wings is a brilliant game. It's got atmosphere, it's got action, and it's got loads of style. Although the retail price of \$79.95 is certainly not cheap, I'm happy to recommend it as top value for your gaming dollar.

★ ★ ★ ★ ★

Ratings:

Graphics:	95%
Sound:	91%
Gameplay:	93%
Overall:	93%

★ ★ ★ ★ ★

Distributed by:



(02) 662 7944

RRP: Amiga \$79.95



Terran Envoy

Here's an Aussie game that's making it on the world market. Good stuff! And not a bad game either ...

Home grown computer games are as rare as hen's teeth. A quick glance at the latest releases piled on my desk tells the story. There's *Operation Stealth*, programmed by Paul Cuisset and Philippe Chastel for Delphine Software in France. There's *Street Rod*, from Andrez Sanoja at California Dreams in San Jose. And *Shadow of the Beast II* comes from Psygnosis, based in Liverpool - no, not Liverpool 2170, NSW. Liverpool, L3 3AB, UK. In a word, Aussie games have a very low profile.

This may soon change. And *Terran Envoy* may be just the game to change it. *Terran Envoy* was developed in Australia by Ben Freasier, Tony Oliver, Barry Price and Mick Neinhm. The group forms part of Stratagem Software. Based in Canberra, Stratagem brings new meaning to the word "diverse." Established in 1985, the company now employs more than sixty staff on projects ranging from systems development for major government departments to games development for budding space cadets.

Terran Envoy, their first release, is best described as a strategy game - a game

that relies more on a good head than a fast hand. Programmer Tony Oliver claims that the game will have wide appeal, though it is targeted at a niche market. "*Terran Envoy* will appeal to professionals like ourselves," says Oliver -



To play *Terran Envoy* effectively you need to be something of a diplomat and a detective. You are earth's envoy to the Galactic Sector Council, the Ubbermenscha, and you have a sneaking suspicion that all is not well. Rumours are circulating



that there's a traitor on the council, a usurper whose sole aim is to take control of the galaxy. But who is it? Naturally, the Ubbermenscha is made up of creatures from all over the universe. Most of them are incredibly ugly, though you can rest assured they feel the same way about you - so don't jump to any conclusions.

You'll need to learn as much as you

can about your fellow councillors before you can flush out the culprit. Check up on their psychological makeup, and find out who their friends and enemies are on the council before you go asking too many questions.

Most council members need a little encouragement before they'll speak. Not bribes, of course, but as you'll realise, advanced telepathic species are fascinated by rare crystals. Some crystals can even amplify positive psionic responses, which gives the guys a real good feeling - boy, this new age stuff has spread further than I thought! Naturally, you'll need to know what sort of crystals excite each alien, and then you'll need to set out on a mining expedition to build up your stocks.

Your ARAC, or "personal computer" displays pictures of your alien colleagues, planetary systems and crystals. Subscreens display streams of useful data. The machine automatically stores all the information you gather, so all you need to do is sort it out, put it together and zap the culprit with the Ray of Justice. Easy. If you're a genius.

The Amiga version of *Terran Envoy* is a little disappointing. Development was carried out simultaneously on the PC and Amiga versions - Amiga supplied the graphics, PC produced the gameplay. And unfortunately, it shows.

Terran Envoy is heading for the world market. And that's good news for us all. Don't buy a copy if you're looking for "state of the art" graphics and sound effects. Because they're not. But if you want to stretch your brain for an hour or two and encourage the Australian software industry, it's well worth a look.

Phil Campbell

Distributed by:



(02) 899 2277

Mindscape

RRP: Amiga \$49.95

The Australian
COMMODORE
and **AMIGA REVIEW**

CLASSIFIED ADS

Please place the following
classified ad in the next issue!
(Please print)

- FOR SALE
- WANTED TO BUY
- OTHER

(Include hardware,
contact number etc).

RATES: \$8.00 for 15 words & 50c
for each extra word.

Find enclosed a CHEQUE
or

Please debit my BANKCARD:

The number is:

The expiry date is: _____ of 19____

Signature: _____

Fax: (02) 398 5322

Phone: (02) 398 5111

Deadline: 12th of the month prior
to issue.

☆ **Subscribe** ☆

The Australian
COMMODORE
and **AMIGA REVIEW**

*Make sure of getting
your copy
Subscribe now!*

Please enrol me for issues
subscription to The Australian
Commodore and Amiga Review,
commencing with the
issue.

I enclose a cheque/money order
for \$

Please charge my Bankcard

Bankcardnumber:.....

Expirydate:.....

Name:.....

Address:.....

.....Postcode:.....

Please tick applicable

First Subscription

Renewal

**TO: The Australian
Commodore
and Amiga Review
21 Darley Road,
Randwick NSW 2031
(02) 398 5111**

Rates within Australia:

6 issues \$19.00 (inc postage)
12 issues \$36.00 (inc postage)
Minimum OS postage \$35.00 AUS
(Air Mail) more for some countries

If you don't want to cut this out
photocopy it or just send a letter.

CLASSIFIEDS

C64 Users - 1st release *Catholic Quiz 1* plus bonus programs. Quote this ad for free gift. Only \$5.00 posted or leaflet from: **RECAF Software PO Box 311 Auburn NSW 2144** (02) 646 1553

Amiga Public Domain Software: Fish, Amicus, T-Bag, Amigan: \$4.00 each. Catalogue disks: 2/\$5.00. Free postage. cheque/money order to: **Bruce McCready, PO Box 117, Clifton Hill, Melbourne 3068** (03) 481 7141 A/H

Back Issues

The following back issues are
still available at **\$2.50 each** plus
\$2.00 postage

- Vol 2 No2
- Vol 3 No3
- Vol 3 No5
- Vol 3 No6
- Vol 3 No7
- Vol 4 No4
- Vol 4 No6
- Vol 4 No7
- Vol 4 No9
- Vol 4 No10
- Vol 4 No11
- Vol 5 No5
- Vol 5 No6
- Vol 5 No9
- Vol 5 No10
- Vol 5 No11
- Vol 6 No3
- Vol 6 No4
- Vol 6 No5
- Vol 6 No6
- Vol 6 No7
- Vol 6 No8
- Vol 6 No9
- Vol 6 No10
- Vol 6 No11
- Vol 7 No2
- Vol 7 No3
- Vol 7 No4
- Vol 7 No5
- Vol 7 No6

Please supply the issues
ticked above.

I enclose: cheque
 money
order
 Bankcard

B/C No.

expiry date.....

Name.....

Address.....

.....P/C.....

POST TO:

A.C.A.R.

21 Darley Rd

Randwick NSW 2031

Adventurer's Realm

by Michael Spiteri

Welcome, friends, to the realm of adventuring, better known as *Adventurers Realm*. Send in your problems and if I cannot help you I'll print it among these pages in the hope someone else can. If it's general help you are after then we have a number of hint sheets available for most popular games to help you plug through.

Don't forget to send in your hint and tips, and even your views would not go astray. The address to write to for adventure and war-game queries is:

Adventurers Realm, P.O.Box 351, Pakenham, Vic 3810

The *Dungeon* is where Kamikaze Andy lives, and he can offer help (but not hint sheets!) on most role-playing games - if you enclose a stamped addressed envelope. His address is:

The Dungeon, P.O.Box 315, Maddington, WA 6109

Free Hint Sheets

Just send a stamped addressed envelope to:

Free Hint Sheets, P.O.Box 351, Pakenham, Vic 3810, and select up to four hint sheets from the list below, and I'll make sure you receive them a.s.a.p at no extra cost to you!!

..Or you could wait until next month, when the list below would have grown!!!

Bard Tale 1,2,3 Zork 1,2,3 Hitchikers Guide, Faery Tale, Dracula, Castle of Terror, Adventurerland, The Pawn, Borrowed Time, Fish, NeverEndingStory, ZZZZZzzzzz, Deja Vu, Pirate Adventure.

(Note: The Pirate Adventure hint sheet is for the famous Scott Adams adventure game, not the recently released rpg).

In the works: An Official Adventurers Realm Hint Book, watch this space!!

Adventure News

Karen Kelty of Questor tells me that there are hundreds of titles to be released over the next two months. A couple to look out for is *Grem-lins II*, and also *Viking Child*, a hot new game from Electronic Zoo. PC owners, *Space Ace* is coming your way! A hopeful future release is *Legend of Faerghail*, a new rpg from Reline Software (distributed by Computermate) that hopes to grab a slice of the *Bards Tale* series market.



problems, problems & more problems

The following adventurers are stuck up to their neck deep in adventure problems, riddles and parmacles. If you can help them out, please do, by writing with your help to *The Realm*.

First up on the gallows is clever contact Turrigan, who wants to know whether he should give the soap-on-a-rope to Cherri Tart. If he does, what does he use for the shower?

Then we have Peter Rickard of Farrer in ACT who is stuck desperately in *Future Wars*. Um, he wants to know how to get past ... a photocopier!! He has in his inventory a sheaf of paper, insecticide, plastic bag, and the key. All the combinations of paper red button and green button result in setting off the alarm! What is he doing wrong?

Michael Rowe of Nakara (somewhere near Darwin) in the Northern Territory is stuck in *Phantasia III - The Wrath of Nikademus* (C64). Could somebody please advise Mike how to proceed to the plane of darkness. He is able to get to the giant crystal castle and obtain the key to light

and darkness.

Adrian Smythe of Auburn in NSW is stuck in the two latest *Leisure Suit Larry* games. In number 2, he is on the cruise ship and doesn't know what to do! Then in number 3, is there an easy way of getting through the jungle?

Vicky Cooke is stuck at the Goblin's Castle in *Labyrinth*. Also, in *Atlantis*, how do you kill the Black Manta?

Mick Gooch is stuck in *Time*. He has done everything but seen Confucious and needs the 5th time machine to become active.

Shawn Malligan requires help in *Arthur Quest*:

- 1) How do you challenge King Lot?
- 2) What do you do with the little thorn branch which fell in Thorney Island?
- 3) How do you wake the Lady of Lake?
- 4) How do you get Excalibur from the sunken boat?

Finally, Stuart Ferguson wants to know the exact name you have to give to the coach driver in *Dracula* (Pt 1). Some vampire out there must know the answer to this one.

Clever Contacts

Two more clever contacts to write to for specific hints on games

- always enclose a stamped addressed envelope when writing to a clever contact. Watch out for a full list of clever contacts in next month's *Adventurers Realm*.

Turrigan of 20 Braden Way, Marmion, W.A. 6020 (or even by fax c/o Rod Strika (09)3167622) is willing to offer help in *Leisure Suit Larry 1 & 2*, *Indiana Jones & the Last Crusade*, *Police Quest*, and *Treasure Island Dizzy*.

Juris Graney, of 41 Cameron St, Maclean, NSW 2463 can offer help on numerous Amiga and C64 strategy and arcade adventure games.

The Dungeon by Kamikaze Andy

Rejoice all ye Amiga owners, for *Bards Tale III* will finally appear on our wonderful machines in the next few months.

It certainly took Electronic Arts long enough to come up with the conversion. Hopefully, another of EA's hit RPGs *Wasteland* will debut on the Amiga soon.

Speaking of *Wasteland*, Electronic Arts has another new RPG coming, this time for both Amiga and C64. *Fountain of Dreams* will bear a very similar resemblance to *Wasteland*, especially in interface. Look out for this in the coming months. *Dragonstrike*, SSI's AD&D version of a dragon flight simulator with RPG quests to complete is out now for the Amiga. There is also the chance of a C64 version too!

The biggest news for C64 owner this month is the imminent release of *Ultima VI* by Origin. This latest sojourn into Lord British's land of Britannia, however, will not feature the spectacular graphics of the IBM version, and it is very likely that this will be the last *Ultima* to be converted to the C64. According to Origin, the need for more memory and graphic capabilities will not allow future games on the C64. Amiga owners will have the pleasure of superb graphics and sound, but not until the middle of next year.

SSI have brought out a couple of sci-fi RPGs for both the Amiga and C64. Watch out for *Renegade Legions: Intercep-*

tor, based on the popular FASA game, and also *Buck Rogers: Countdown to Doomsday*.

Another notable release is *Corporation*, a futuristic *Dungeon Master* clone which supposedly has many more features. Another release is *Dragonflight*, from Germany, with great looking graphics.

Commodore's big news, which is the release of the Amiga CDTV CD-ROM games machine next month, has already prompted a few adventure and RPG companies to design some games using the storage capacities of CDs.

From Lucasfilm comes a new design of *Loom*. Origin, Sierra and FTL, as well as many more, are making the conversion to CDTV. Be prepared for *Ultima VII* on CDTV late next year, and even *Kings Quest V*.

HELP WANTED

Andrew Strika needs help with *Ghostbusters 2*. Anyone got some advice?

Ainsley Travers has written for the second time looking for help with *Elite* on the C64. Any pokes or cheats would be appreciated. Ainsley would also like some help with *Last Ninja II* - how do you turn off the fan? If you can help, send in your tips, or write direct to Ainsley Travers, 49 Parap Rd, Parap NT 0820.

Neville Clarke of 51 Festing St Albany WA 6330 is looking for a cheat/ poke for *Rocket Ranger*, or even some helpful tips.

Help, Help and More Help

Many thanks to the many adventurers who helped out troubled adventurers, I am sure your assistance is greatly appreciated. Send your hints and tips to Phil at PO Box 23 Maclean NSW 2463, or fax 'em in on 066 452060.

Game: Hound of Shadow

For: Paul Valentine **From:** Noel McAskill
Help: To get the book in the British Museum, enter 'get name of book' after your friend asks you to get that book from Open Access.

Game: Tass Times in Tonetown

For: Natalie Paine **From:** Noel McAskill
Help: The editor's name is NUYU. Use

Adventurer's Realm

the terminal by typing:
turn on printer, turn on terminal, type your name. The silver painted jar is empty and is used to collect devils.

Game: Temple Curse
For: Ben Del Fabbro **From:** Vicky Cooke and Peter Nuzum
Help: From the jungle clearing, remove leaves, get stick, go south, hit latch, climb steps, get rock, hit padlock, open door, go door. This will bring you to the Great hall.

Game: Island of Spies
For: Craig Power **From:** Vicky Cooke and Peter Nuzum
Help: Untie the parachute, remove parachute, crawl out, hide parachute.

Game: The Temple Curse
For: Scott Robinson **From:** Peter Nuzum
Help: The translator is used to read the sign in the sacred

Game: Savage Island Pt 1
For: Scott Pitcher **From:** David Clark
Help: The way you get all the objects out of the lake without drowning is to use the log. You leave it floating on the top, swim down and get everything. Then swim up and hold onto the log.

Game: Leisure Suit Larry III
For: Luther Teng **From:** Turrigan
Help: First follow Chris Kaiser's directions (August issue) but before you go into the forest, look in the mailbox on the driveway at your home. Take the credit card, find the beach and give the credit card to the girl there.

Game: Indiana Jones and the Last Crusade
For: Spaceflight **From:** Turrigan
Help: First to open the chest, go to the bookcase near the bedroom and pull it down. You should find a small piece of tape on the back of it. Take the tape and return to the college. Climb back into your room and find the jar of solvent. Open it and use tape in jar of solvent. You should now have a key to open the chest. Second, in Venice, you cannot go straight through the grate to the crypt, you must go around.

General Hints by Michael O'Sullivan

Game: Drakkhen - The ninth tear is the combination of the other eight tears. The tears are the gems found in the foreheads of the higher lords of the Drakhen

priesthood. To gain entry into the first castle with the shark in the moat, wait until the shark just appears on the right hand side of the drawbridge then send one of the two centre characters across by clicking on the door. If you are low on energy, walk up to a building and when you change to character mode automatically, you may rest by not touching the computer. Nothing can harm you. Save the game before entering the pub, and when finished inside, reload the save so that you get all your money back. Talk to Drakh in the first castle (he is in the bedroom). Don't touch the crosses on the hand.

Realm Chit-Chat

Mick Gooch of Lowood in Queensland suggests that Sue Martin who had problems recruiting soldiers in *Romance of the Three Kingdoms* should go out and purchase an original copy of the game. Apparently, a not-so-original version of the game has the soldier's option disabled!

David Clark of Fish in ACT wants to know if the Scott Adams series is available on the Amiga. Public domain clubs might have the range available, though I don't think any of the major suppliers have released these classic series of text adventure games. They are however, available on the C64 and PC's.

Michael O'Sullivan of Dickson in ACT has discovered a way of cheating in the strategy game *Super Cars*. Typing in one of the following names gets you to different levels. RICH gives you 500,000 pounds to start off with, ODIE starts you on level two, and BIGC starts you on the suicide level - three.

Advertisers Index

Allan Crouch	6	Kawal	11
Briwall	66,67	Logico	53
Brunswick	7	Mallsoft	61
Charles	7	Maxwells	25
Colour Computer Systems	1	Megadisc	70
Commodore	50,51,63,71	Melton	
Computer		Manufacturing	6
Discounts	40,41	Mindscape	15,27,43,47
Computermate		Multicoin	6,37
IFC,IBC,46,54,55,57		P C M Computers	19
Computer Spot	32,33,34,35	Pacific Microlab	49
Dataflow	21	Pactronics	7,29,31
Desktop		Parcom	9
Utilities	10,24	Pelham	87
ECP/EA	39	Phoenix	
Fonhof	55	Microtechnologies	9
G P Software	70	Power Peripherals	3,5
Hard Disk Cafe	14,62,63,64	Quadrant	13
Home Entertainment		Regional	4
Supplies	44,45,0BC	Rod Irving	87
HPD	8,61,69	Romac	36
Interlink	58,59	Roseneath	87
		Systems 800	73
		Unitech	36
		XEL	4
		Whites	12

ROSENEATH COMPUTERS P/L

Freeport 6, P.O Box 506
Engadine 2233. Ph: 520-2933

Now Available, the Winter Catalogue-on-a-disk for the Amiga with over 1.000 items for the Amiga including Modems, Monitors, Hard Drives & Software. Send \$3.00 for the Disk or get it free with any order over \$50.00. The Disk can be updated for free anytime. We accept payment by Bankcard, Mastercard & Amex.

MEMORY CHIPS FOR AMIGA USERS

Prices as at 1st MAY

DIP /ZIP	SPEED	120ns	100ns	80ns
414256		10.80	11.80	12.20
41256	2.85	3.40	3.95	
41464		3.40	3.95	
4164	2.70	3.00		

SIMMS FOR GVP HARD DISK (1MB) \$112.00

Sales Tax 20%

Overnight Delivery, credit cards welcome
Phone for pricing PS2, Compaq, Toshiba.

pelham PTY LTD

Tel: (02) 427 0011 Fax: (02) 428 5460

FREE CHEAP DISKS

CATALOGUE PLEASE
CALL IN & PICK ONE UP

"NO BRAND"
BOXES OF 10 DISKS
LIFETIME WARRANTY

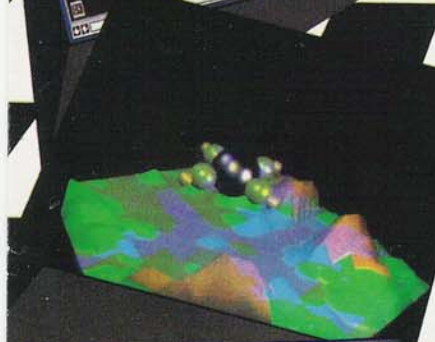
	1-9	10+	50+	100+	500+
5 1/4"DS/DD	\$4.90	\$4.80	\$4.70	\$4.60	\$4.40
5 1/4"DS/HD	\$11.50	\$11.00	\$10.50	\$9.50	\$8.90
3 1/2"DS/DD	\$11.50	\$11.00	\$10.50	\$9.50	\$8.90
3 1/2"DS/HD	\$28.50	\$27.50	\$26.50	\$26.00	\$25.50

ROD IRVING ELECTRONICS

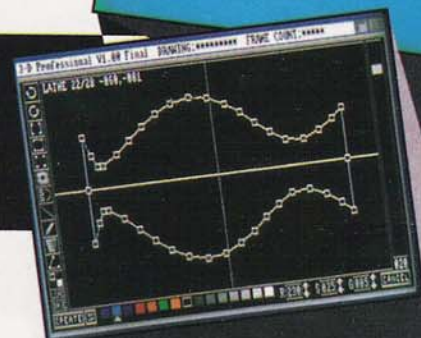
MELBOURNE: 48 A Beckett St. City. PH: (03) 663 6151
NORTHCOOTE: 425 High St. Northcoote. PH: (03) 489 8866
SYDNEY: 74 Parramatta Rd. Stanmore. PH: (02) 519 3134
MAIL ORDER: 56 Renver Rd. Clayton. PH: (03) 543 7877
HOTLINE: 008 33 5757 FAX: (03) 543 2648

When you think "3-D", why not think "3D"?

3-D PROFESSIONAL[®]



- Intuitive, powerful mouse driven interface. Object oriented 3-D object editing and manipulation (DPAINT™ style of interface).
 - Lathe, extrusion and conic creation tools.
 - Fractal land and tree creation tools.
 - Extrude any text using any Amiga standard font into an object.
 - Multiple 24 bit (over 16 million colors) rendering techniques including solid (faceted), gouraud and phong.
 - Display renderings directly on the Amiga (supports overscan and all resolutions including HAM).
 - Versatile alternatives to Amiga displays: X-Specs, RGB files, PostScript (full & EPSF).
 - Full surface attribute control including built-in textures such as marble, wood, snow, rippled, blend, etc.
 - Up to 99 colored light sources of varying intensities and types.
 - Multiple lighting models: point (omni-directional), cylindrical and conic (spotlights).
 - Full object hierarchy control capability.
 - Camera/light following and tracking of any object.
 - Work in a fully shaded or wire frame environment.
 - Supports surface details as defined by the VideoScape 3-D™ (GEO) file format.
 - Object manipulation tools include rotation, scaling, shearing, mirroring, slicing, merging and splitting.
 - Fully configurable gridding and grid snap facility for precise placement.
 - An easy to use alignment tool for exact joining of objects.
 - Fully supports the Transport Controller™ software for recording images to single frame VTRs.
 - Supports output to the Mimetics 24bit Frame Buffer.
 - AREXX™ compatible script language for precise control.
 - Easy to use ANIM creation facilities (manual, scripted or key frame).
 - Support for a multitude of object file formats:
 - LOADS
 - 3-D Professional™, VideoScape 3-D (GEO)™, Sculpt 3-D™, AutoCad DXF™, Forms In Flight™, Turbo Silver™, 3-Demon™ & CAD 3-D (Atari)™
 - SAVES
 - 3-D Professional™ & VideoScape 3-D (GEO)™
 - Package includes a 2 hour instructional video tape (VHS), Tutorial Guide, & User Manual.
 - Includes powerful Animation Station software.
- Progressive Peripherals Acknowledges All Trademarks*



Distributed and Supported in Australia by:
COMPUTERMATE
 products (australia) pty. ltd.
 9 High St., Mr. Kuring-Gai, N.S.W. 2080.
 Ph: (02) 457 8388 Fax: (02) 457 8739
 Technical Support Number: 457 8548

TURBOLOAD

CARTRIDGE FOR COMMODORE 64

**LOADS
DISKS
FASTER**



- Easy to instal cartridge, simply plugs into your Commodore 64 or 128.
- Loads disks up to 6 times normal speed with both the 1541 and 1571 disk drives.
- Simplified DOS commands for loading files, formatting disks, deleting files etc.
- Stoppable directory listing which does not overwrite programs in memory.
- Built in menu maker to provide a menu for each disk to simplify loading and running of programs.
- Easy listing of BASIC programs to printer.
- Text screen dump to printer.
- Reset button — ideal for magazine pokes.
- One year warranty.



NSW -
GAMES WIZARD, Granville
Ph: (02) 682 1268; STEVES COMMUNICATIONS,
Fyshwick Ph: (06) 280 6877; SHOP 4, Wollongong Ph: (042) 26 2888;
THE GAMESMEN, Penhurst Ph: (02) 590 9888, VIC - MIDI-MOUSE COMPUTERS,
Werribee Ph: (03) 749 4138; Altona Ph: (03) 314 4689; Chadstone Ph: (03) 589 0278; MAXWELLS, Abbotstord
Ph: (03) 419 6811, QLD - ACTIVE COMPUTERS, Townsville Ph: (077) 72 3793; CITY COMPUTER CENTRE, Rockhampton
Ph: (079) 27 3618; PCB ELECTRONICS, Cairns Ph: (070) 54 7305; PICK & PAY HYPERMARKET, Aspley Ph: (07) 263 1588;
UNITED COMPUTERS, All Stores, WA - COMPUTER CORNER, Maddington Ph: (09) 459 0650; STANBRIDGE GAMES,
Balcatta Ph: (09) 345 1922, SA - HARRIS SCARFE, Rundle Mall Ph: (08) 203 4444; PLAZA COMPUTERS, Modbury
Ph: (08) 264 9399, TAS - ANGUS & ROBERTSON BOOKSHOPS, Hobart Ph: (002) 34 4288; Launceston Ph: (003) 34 0811;
QUADRANT COMPUTER CENTRE, Launceston Ph: (003) 34 3436; BIRCHALLS, Launceston Ph: (003) 31 3011.



Proudly made and distributed in Australia by:
HOME ENTERTAINMENT SUPPLIERS PTY. LTD.
Unit 1/128 Bonds Road, Riverwood 2210 NSW (02) 533 3277