

AMIGA

COMPUTING

**WORTH
£60!**

FEBRUARY
1995

AMIGA
COMPUTING

All Amigas

ANIMWORKSHOP

**Complete and
unrestricted program!**

Create your own
animations, edit
and manipulate
frames with a
host of graphic tools and functions



FEBRUARY
1995

AMIGA
COMPUTING

*A collection of great utilities and
programs to help make using
your Amiga easy and painless*

Button Menu

Assign programs
to a button for easy
access and quick
execution



ECSDiagnosis

A brilliant diagnostic
tool to track down
Amiga faults

WindowDaemon

Customise the way
your Amiga handles
Workbench screens

Cracking computer Gromit!

**Exclusive: behind the
scenes with the
Amiga at Aardman
Animations**

PLUS

- RTG roundup
- Photogenics
- Motion Master
- Amiga TV
- Wordworth SE
- Serious CDs
- Termite
- Intos



02
9 770959 963077
IDG
MEDIA

INDI JANUARY SALE

INSTANT CREDIT FOR NEW YEAR*

(infact at any time)

We can Now organise Instant Credit with a Same day decision at nearly ONE Hundred Offices Nationwide

BUY TODAY - PAY IN 6 MONTHS

No Interest, No deposit, No Strings Attached

ORDER ANY INDI ADVERTISED PRODUCT OVER
£100, USE IT FOR 6 MONTHS AND THEN
CHOOSE HOW TO PAY

Option 1
AFTER 6 MONTHS
PAY IN FULL
NO CHARGES
WHATSOEVER

Option 2
AFTER 6 MONTHS
PAY OVER 24 OR
36 MONTHS AT
OUR NORMAL
APR*

INSTANT CREDIT AVAILABLE FROM
NEARLY 100 OFFICES NATIONWIDE

Credit Cards



Express Cheque Clearance

Simply write your cheque guarantee card number, name and address on the back of your cheque and we will normally be able to dispatch your order the day that we receive your cheque. Cheques, received without a cheque guarantee card number, will normally clear within a maximum of 7 working days.

Customer Care

The substantial volume of sales calls coming into our office has resulted in delays in the crucial area of customer-care. To ensure that all customer queries are handled speedily and efficiently a new customer care department has been established. Our new department will be happy to assist you on their new number 0543 419921 Mon-Fri 10am-4pm

INDI SALES DESK
0543 419999
* APR 29.8% Subject to Status. Offer ends 31st January 1995

ZAPPO Smart Plus

Drives have come down so
INDI pass the advantage on to
YOU

Plugs into the PCMCIA Slot of the Amiga 400
& 1200 and is ready to go. Excellent build
quality at an amazing price. 12 Months
Warranty

261Mb ~~£195.00~~
528Mb ~~£314.00~~

Sale Price £194
Sale Price £312



FREE
Zappo T-Shirt
Comes when ordering

APOLOGIES TO OUR CUSTOMERS

INDI have discontinued internal IDE Hard Drives.
The Smart Plus is in our opinion faster and far better
value for money

You've seen all the reviews
on this popular and affordable
second Amiga drive.
Compatible with all Amigas
Quality 9 out of 10.
Exceptional value for money.
Amiga Computing

£44.99

SALE PRICE



DID YOU KNOW THAT
MOST MAJOR SOFTWARE
PUBLISHERS ARE BRANDING
THEIR CD32 SOFTWARE



US Gold, Electronic Arts,
Elite, Team 17, Mindscape,
Krisalis, and Kinco

Monitor SALE

MICROVITEC MONITORS

This superb monitor offers a high quality
Q20 dot pitch and low radiation total
MPRL compliance. Complete with
external Stereo Speakers and includes all
leads - this is the monitor that we have all
been waiting for.

External
Speakers
Included

SHARP MONITOR / TV



The Sharp 14" 14" Monitor 17" TV
provides a real alternative to a Commodore
39 channel electronic auto search tuner.
Digital on screen display and 13 wave HF
pull-up output. All you need to know is the
one line price. The Sharp Monitor 17" is
the product for you complete with scart
cable and connectivity cable and including
12 months Warranty

£285.99
SALE £159.99

SX-1

CD 32 EXPANSION MODULE

Order today and fill in our credit application
form. Choose a payment period from 6 - 60
Months and you will soon be using your SX-1
for 6 months for nothing.

The Amazing SX-1 Module simply slots into the
back of your Amiga CD12 and a whole world of
expansion opens up for you. Add a keyboard,
floppy drive or even fit a superfast hard drive.
Instantly your CD32 is no mere console, it's a
real computer.

FREE FRED FISH
SX-1 EXPANSION
MODULE

£189.99

Expansion Options

BLACK KEYBOARD £37.99
ZAPPO FLOPPY DRIVE £44.09

SX-1 Super Bundle

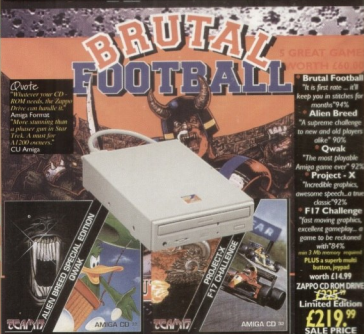
SX-1 Expansion Module
Black Keyboard
Zappo Floppy Drive

£249.99 **SALE**

FREE
Zappo T-Shirt or Zappac
with every Zappo Product
Confirm when ordering



ZAPPO AMIGA 1200 CD ROM DRIVE LIMITED EDITION PACK



Quote

"I have over 100
CD-ROM needs, the Zappo
Drive can handle it."
Amiga Format
"After standing about
a player got in Star
Trek. A most for
1,1200 owners."
CU Amiga

Brutal Football

"It's first rate... it'll
keep you in stitches for
months '94".
Alien Breed
"A supreme challenge
to new and old players
alike" 90%
Qwak
"The most playable
Amiga game ever" 92%
Project - X
"Incredible graphics,
awesome speech a ten
class" 92%
F17 Challenge
"Fast moving graphics,
excellent gameplay... a
game to be reckoned
with" 94%
over 2 million copies sold
PLUS a superb multi
billion, played
worth £14.99
ZAPPO CD ROM DRIVE
£225.00
Limited Edition
£219.99
SALE PRICE

TEL: 0543 419 999 FAX: 418 079

ANNOUNCING THE NEW PANASONIC KX-P2135

A 24 Pin Quiet colour printer, designed for those who need low cost professional quality output, giving all your documents and presentations eye catching colour. The NEW KX-P2135 incorporates a 20 page built in sheet-feeder, a flat belt push tractor feed to facilitate easy loading together with a noise level of only 46.5dBA (43.5dBA in super quiet mode)

Quiet Printing 46.5 dBA - 43.5 dBA SQ Mode
Multiple font capabilities including 3 draft and 7 letter quality

- Tractor feed
- 2 paper paths
- 7 Colour printing
- 250 cps Draft Micron, 83 cps LQ
- 1 Year Warranty

Please note all Panasonic DTP - Matrix printers are supplied with tractor feed. Price of 1 page. Other Companies charge approximately £50 extra for this feature.

FREEPHONE 0800 444220
for your FREE Amiga Driver Disk

£151.32



Panasonic KX - P4400

New KX-P4400 Ultra - Compact LED LASER QUALITY Page Printer
The printer that fits virtually anywhere. Ultra small footprint (12.7cm x 38.8cm x 29.4cm ex tray). At under 6.5 kg this printer travels with you. They also feature energy efficient power save. Page Printer Standard Specification

- 4 pages per minute of laser quality output * 100 sheet, multi purpose paper tray (A4, letter, legal and executive)
- 1 Mb Ram expandable to 5 Mb * 1600 copies per toner *
- 1 Year On Site Warranty * 28 Bitmapped fonts
- HP Laserjet IIP

MASSIVE SAVING £35.32



Panasonic KX-P4410 Laser Printing

- 5 pages per minute
- 28 resident fonts
- Optional 2nd input bin (total printer capacity 2x200 sheets)
- Low running costs
- Parallel Interface
- Optional memory expansion to 4.5 Mb (0.5 Mb as standard)
- HP Laserjet II emulation * Including Superprint
- 24 Months On - Site

£351.32

WHILST STOCKS LAST

SALE PRICE

ROMBO

SALE PRICE

HEGAMIX. Low cost, Hi spec digital effects cartridge plugs into the printer port of the Amiga. Allows stereo sampling from almost any musical source. **INDI PRICE £26**
TAKE TWO. Animation package is a must for computer artists and enthusiasts of all ages. As used in Rolf Harris Cartoon Club. **INDI PRICE £34**
VIDI AMIGA 12. The ultimate low cost colour digitiser for the Amiga. "the best value full colour digitiser on the market". Amiga Format. **INDI PRICE £69**

ROMBO VIDI AMIGA 12 (RT)

Based on the best selling Vidi Amiga 12. This all new version offers real time colour capture from any video source. Full AGA chipset support as standard for all A1200/A4000. **INDI PRICE £129**

ROMBO VIDI AMIGA 24 (RT) Plus FREE Power Supply

For the more serious user, this 24 - bit version will allow capture from any video source with true photo realistic images. A staggering 16.8 million colours can be utilised with incredible results. Full AGA chipset support. **INDI PRICE £219**

ALFASCAN - PLUS 256 GREYSCALE & ALFA COLOUR 256K COLOUR HAND SCANNER

This Superb Alfa Scanner - voted 'Amiga Shopper Best Buy' - arrives complete with Merge II and Micrograph OCR software. Merge II shows the simple, quick method of two or three images and Micrograph OCR turns your Amiga into an efficient text reading system. Amiga 500/500+ (A1000/A1200/A1500/2000/3000/4000) Minimum 1Mb memory Minimum 2Mb memory & a Hard Disk to run OCR option. * Kiosco, Workbench V1.2 or higher.

ALFASCAN PLUS 256 GREYSCALE

WITH OCR SOFTWARE
Optical character recognition allows you to enter Scanned Documents.
Perfect for Word Processing Applications

ALFA COLOUR WITH 256 COLOUR HANDSCANNER

£124.99

SALE PRICE

£294.99

SCOOP PURCHASE

Top Quality 100% Error Free

BULK DISKS

50 Disk Pack £11.69 Disk Labels 500 Pack £4.50

PRINTER ACCESSORIES

- 1) Printer Dust Cover Tailored dust cover for the Panasonic KX-2123 printer **INDI PRICE £8.99**
- 2) Printer Stand * Please prices stand **INDI PRICE £9.99**
- 3) Paper Pack 500 sheets of quality A4 paper **INDI PRICE £9.99**
- 4) Continuous Paper 2000 sheets 1 part billing paper **INDI PRICE £11.99**
- 5) Parallel Printer Cable * Used for connecting Amiga to Panasonic printers **INDI PRICE £12.99**
- 6) Panasonic Colour Ribbon Colour ribbon for KX-P2123 **INDI PRICE £12.99**
- 7) Panasonic Black Ribbon Black ribbon for KX-P2123 **INDI PRICE £6.99**

Canon PRINTERS

CANON BJ105X

1110 CPS * Portable Printer (1.7 kg) * 360 DPI * Optional auto cut sheet feeder * 1 Year Warranty **£174.99**

CANON BJ200

1173 CPS high quality 348 CPS high speed * 360 DPI * 8 resident typefaces * Lightweight Compact format **£224.99**

* Built in cut sheet feeder holds 100 sheets * 1 Year warranty

Do You Own An AMIGA A1500 / A2000 / A3000 Or A4000

2091 SCSI CONTROLLER CARD

- * 6.6 Roms for use in the A4000 * Upto 21H of 16 bit daps can be fitted **£69.99**
- * Any 3.5" SCSI Hard Drive can be fitted
- * Install software for SCSI Hard Drive Any other standard SCSI device can be added
- * Tape streamer * SCSI Scanner * External Hard Drive

LAST CHANCE

HBX 1230 XA 50 MHz 50 MHz 68030 & MMU

- Allows you A1200 to run 1.53 times faster than a A4000 / 530
- Easy trap door installation (No soldering required)
- * Fast RAM upgrade to 16 Mb (72 pin 32 bit)
- On board battery backed clock
- Does not interfere with FPC/ICA port

50mhz **£199.99**

50mhz+50mhz FPU **£229.99**

AMIGA REPLACEMENT FLOPPY DRIVES

Amiga 500 / 500+ Amiga 600 / 1200 **£34.99**

Commodore 601

Trapdoor upgrade for the Amiga 600, 512K. **INDI PRICE £19.99**

Acorn



32 - BIT RISC TECHNOLOGY



ACORN MONITOR

AF152 Multiscan Monitor

* Medium Resolution SINGA 0.28 db

£244

- * Powerful 32 - bit processor * Professional style keyboard
- * 2 joystick ports * 3.5" floppy drive * 1 Mb RAM
- * Best Price word processor
- * Zool Game Pack
- * Introductory Lemmings, Chuck Rock, Superpool and Fenoux
- * Applications: Swiss painting, drawing, text editor and music program
- * Comprehensive audio training tape
- * 1 Year As Home Warranty

PLUGS INTO YOUR TV SET

Acorn Action Pack

£294

EXPORT NUMBERS

TEL: (46)543 419999

FAX: (46)543 418079

INDI DIRECT MAIL
1 RINGWAT INDUSTRIAL ESTATE,
EASTERN AVENUE,
LICHFIELD STAFFS WS13 7SF

PLEASE ENCLOSE £5 FOR SECURICOR DELIVERY (UK Mainland)

Please send 1)

Price

2) ☐ + Delivery

I enclose cheque/ PO for £ or charge my Access / Visa

No.

Expiry

Name

Address

Postcode

Daytime Tel.

TEL: 0543 419 999 FAX: 418 079



AC1 95

CONTENTS



The essential guide to Amiga gaming

System On-line 94

All the latest pulsating and highly exciting news on the forthcoming Amiga game releases, plus this month's recommended releases

Beat the System 98

Jonathan Maddock explains the way to take your footy team to the top with tips for Premier Manager 3. Plus a guide to the secrets of Darkseed

Review: Delphine Classic Collection 108

Delphine has brought together some of the all time greats in a compilation including the classic Flashback. Jonathan Maddock gives it the run down

Feature: Primal Rage 120

Fancy pitting dinosaur against dinosaur in blood-thirsty prehistoric combat? We take a look at the making of another eagerly-awaited title

Review: LucasArt's Classic Collection 124

System assesses yet more goodies in a collection including the stunning adventure, Monkey Island

Feature: Beauty in the Beast 128

Gareth Lofthouse reports on how the ground-breaking graphics in Rise of the Robots were achieved

System Essentials 132

We cast a thrifty eye over the latest budget releases with a review of Dune II and Bump 'n' Burn

Game Reviews

Mortal Kombat II 102

Base Jumpers 104

Jungle Strike 112

Rise of the Robots 114

Lion King 118

Shadow Fighter 130



REVIEWS

Termite 29

We explore the latest release to bring e-mail into the home

Photogenics 40

Paint and image processing power from a single interface

Wordworth SE 47

A pint-sized version of the Digi masterpiece that may be a giant

10/10 Driving 49

The latest release from the Amiga's leader in edutainment takes the test

Special CDs 58

The CD-ROM revolution continues with four CDs under the spotlight

InTOS 75

The latest Amos intuition interface put through its paces by Phil South

Gamesmith 82

Quality software that doesn't need a degree to understand

PP 6.1 88

We investigate an update for a leading contender in the paint race

Special CDs 58

The CD-ROM revolution continues with four CDs under the spotlight

FEATURES

Amiga TV 43

AC takes a look at the latest Amiga-made BBC blockbuster

PR P ranks 61

The lengths some PR companies will go to when promoting a product



Graphics Galore 66

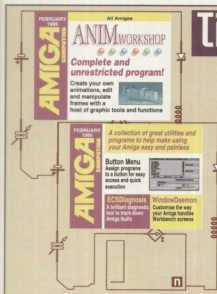
A guide to retargetable graphics for those looking to improve their Amiga

Essential Assembler 77

Paul Overaa offers up more advice when it comes to mastering the machine

Next issue
on sale
9 February

COVER STORY



THE COVERDISKS Page 20

Animation Workshop

Create, edit and rejuvenate your animations with this commercial release. Incredible processing power including direct support for ADPro!

Shareware

ButtonMenu – assign your favourite programs to a button for fast execution
WindowDaemon – customise the way your Amiga processes screens and windows
ECSDiagnosis – Solves faults in seconds
WB Version – Replace Workbench's command with this informative one



Hardman Animation

Amiga Computing discovers that the Amiga's at the heart of this Oscar-winning animation company.

See page 33

REGULARS

NEWS

9

Commodore makes the first bid but the confusion still continues

USA NEWS

15

The usual software specialties from our friendly American expert

GETTING STARTED

19

Essential CoverDisk information for beginners and experts alike

DISK OFFERS

26

Upgrade our giveaways and save some serious cash

ESP

51

Are you in search of serious Amiga answers – the letters page

ACAS

55

Dodgy drives, dicky disks and all things techy taken in hand

PUBLIC SECTOR

70

Not five pounds, not three pounds, not sure what's on offer? Check out our regular PD pages



AMIGA GUIDE

Amiga Medical 136

Frank Nord continues his guided tour of your Amiga with a look at hard drive maintenance and the easy way to keep it in tip-top condition



143

Arrays

Paul Overaa looks at arrays and the confusion of compound variables

147

Video

Gary Whiteley provides a guide to the do's and don'ts of video titling

149

Music

Paul Overaa lends an ear to the Amiga's latest sample editor

145

Comms

Phil South rels the battle between the giants of telecommunication

140

Amos

The second instalment of our guide to Easy AMOS, from Phil South

151

Publishing

Ben Pointer delves ever deeper into the art of pro quality Amiga DTP

Subscriptions



Turn to page 86...

...for details of Amiga Computing's subscription offers this month.

HEAVY discounts
HUGE range
10am to 8pm Daily
FREE - 16 page colour catalogue - just phone
0279 600204
Order by fax on 0279 736842 - we'll fax back to confirm receipt

THE ONLY SUPPLY MEMBERS WHO YOU CAN ORDER AS YOU JOIN
Members receive a 10% discount on all Color Copy Magazine in months. Each issue reviews a selection from our extensive range and includes at least 130 worth of products. Members also receive additional savings on top products. Members are under no obligation to buy anything.

MEMBERSHIP FEES	UK	EC	WORLD
ONE YEAR (6 MONTHS)	7.00 (6.00)	9.00 (6.00)	11.00 (7.00)

One year price includes six issues of Special Reserve magazine with £180 of X3 Coupons.

All prices include VAT and 2-3 working day carriage to UK mainland.
Software and peripherals are sent by post, handled by White Arise.
Allow one or two days for processing and despatch of stock items.
We issue confirmations of all orders received.

Hardware items (primary or minor) are only supplied to the UK mainland.
Overseas surcharge £2.00 per software item or 25% on other items.

K&L

(BLACK CAPITALS PLEASE)
Name & Address _____

Postcode _____
(UK or EC please state ZIP or US ZIP)

Phone No _____ Machine _____

Enter membership number (if applicable) or
NEW MEMBERSHIP FEE (ANNUAL, UK £7.00) _____

item _____	_____
item _____	_____
item _____	_____

Please use this box to add any optional fast delivery charge
 (at Extra Post 49p per posted item or £30 overnight hardware)
ALL PRICES INCLUDE UK POSTAGE & VAT
 Cheque/P.O./Access/Mastercard/Switch/Visa
 CREDIT CARD EXPIRY DATE: _____ SIGNATURE: _____ SWITCH
 _____ ISSUE NO: _____

P.O. BOX 847, HARLOW, CM21 9PH
 International prices quoted, worldwide post paid from the UK.
 Prices and offers may change without prior notification. **SAVE** = Saving off full retail price.
FREE = Free of charge. **FREE** = Free of charge. **FREE** = Free of charge. **FREE** = Free of charge.
 Int'l. Mailing: 12.2 South. The Mailing: 12.2 South. The Mailing: 12.2 South. The Mailing: 12.2 South.




Special Reserve

Wide range of hardware, software, books, peripherals and leads for

300. All official UK products, all at HEAVILY discounted prices.
 Order by post, or by phone or come to one of the Special Reserve
 OPEN 10am to 5pm **CLUB SHOPS** 7 DAYS A WEEK
 83 Broomfield Rd **CHELMSFORD** near the Bus station
 The Matings **SAWBRIDGEWORTH** near the Train station
 Over 200,000 people have joined Special Reserve

CITIZEN ABC 24 PIN COLOUR PRINTER	
FREE W/ PC OFFER	
FREE PRINTER LEAD	
FREE EASYSTART SOFTWARE	
34 PIN 60 COL. COLOUR PRINTER	
100 DOTS/INCH 24 PIN 600 X 600 DPI	
DRAFT FONT 2 YEAR WARRANTY	
THEIR OWN COPY PRINTER	
ABC MONO PRINTER 124.99	
NEW STUNNING VALUE	Free Watch Offer
CITIZEN PROJET IC COLOUR	
INKJET PRINTER	
60 NOZZLE, 60 COLUMN,	
100 DOTS/INCH 300 DPI RESOLUTION,	
3 AVAILABLE COLOURS FOR LOW RUNNING COSTS	
AND EASY TO USE, 2 YEAR WARRANTY	
ALL PRINTER PRICES INCLUDE CARTRIDGE VAT AND FREE PRINTER LEAD	
MANAGING OFFICE FOR THE FOLLOWING	
WITH FREE WORDSWORTH PRODUCT WARRANTY WHILE STOCKS LAST	179.99
CARBON COPY/REVERSIBLE/PRINTING	179.99
CITIZEN SWIFT 280C COLOUR PRINTER, 34 PIN, 216CPS*72.0,	185.99
CITIZEN SWIFT 24C COLOUR PRINTER, 34 PIN, 216CPS*72.0,	185.99
CITIZEN SWIFT 24C COLOUR PRINTER, 34 PIN, 216CPS*72.0,	229.99
CITIZEN SWIFT 24C COLOUR PRINTER, 34 PIN, 216CPS*72.0,	229.99
CITIZEN TRACER FINE KIT FOR CITIZEN ABC PRINTER	26.99
CITIZEN TRACER FINE KIT FOR CITIZEN ABC PRINTER	12.99
COVER FOR 60 COLUMN PRINTER (CLEAR PVC)	12.99
PRINTER STAND FOR ANY PRINTER	14.99
PRINTER (BLACK) 24 PIN 60 COL. COLOUR PRINTER	249.99
PRINTER (COLOUR) FOR CITIZEN 90, 24 PIN 240 DOTS, 240 DPI ABC	54.99

WANT A  4 YOUR AMIGA?

DON'T  A  AND PUT

ALL YOUR  IN 1 BORING



THINK A



WITH OUR

NEW



INTERFACE

If you're thinking about buying a new peripheral for your A1200 or A600 then ... *don't* ... until you've considered our brand-new, plug-and-play SCSI 2 interface and our exciting range of modern storage devices.

Named after the famous storage-hungry animal, the Squirrel™ SCSI 2 interface simply plugs into your PCMCIA slot and allows you to connect up to 7 (yes, 7!) SCSI devices to your Amiga at the same time. Just think of it, a triple-speed CD-ROM, a SyQuest™ removable drive, a DAT drive, a Magneto Optical and a Tape Streamer, all on-line and all available at any time!

All this is a reality with the amazing Squirrel™ SCSI 2 interface.

The Squirrel comes complete with SCSI software drivers, a host of useful SCSI programs (audio CD player, CD-to-HD sampler etc.) and is also extremely compatible with the CD32 so that, with a suitable CD-ROM drive, you can run games like Diggers, Brutal Football, Liberation, Pinball Fantasies etc. etc.

But there is much more to SCSI than CD-ROM; SCSI is an industry-wide standard which means that you can



the neat Squirrel SCSI interface

plug any SCSI external device into the Squirrel interface and daisy-chain units together. No longer are you forced into a closed solution - with Squirrel, your Amiga will grow with your needs.

Incredibly, the Squirrel SCSI 2 interface costs only £69.95 including VAT and is available now from all good Amiga suppliers or directly from HiSoft.

To complement the Squirrel interface we have released a number of quality peripherals - professional Squirrel Storage Systems™ at nutty prices!

Squirrel Storage Systems

Squirrel Storage Systems come either bare (int - ready for installation internally) or fully-cased (ext) with integral power supply, SCSI in/out, SCSI ID selector and audio out (for CD-ROM). All prices include VAT.

SCSI CD-ROM Drive

The SuperTriple™ CD-ROM offers 510Kb/sec transfer, 190ms access, PhotoCD™, CD-DA & more: a brand-new super-fast feature-packed unit at a fantastic price.

SuperTriple™ int £189, ext £249.

SCSI SyQuest™ Drives

Transportable storage is here with the solid, proven SyQuest™ 88Mb and 270Mb removable drives. Great for backup and moving your work between machines...

88Mb int £289, ext £349. 270Mb int £439, ext £499. Drives inc 1 cartridge. 88Mb cart £59, 270Mb cart £59.

SCSI Hard Drives

Modern, fast drives, all with 128Kb cache, at great prices. 270Mb int £179, ext £229. 540Mb int £259, ext £319.

HiSoft
High Quality Software

The Old School, Greenfield,
Bedford MK45 5DE UK
Tel: +44 (0) 1525 718181
Fax: +44 (0) 1525 713716

By ADAM PHILLIPS

Commodore UK makes first bid



Pleasance: "I can assure you that he [the liquidator] has received the bid and he has also received the money"

After last month's strongest contender, CEI, appearing to be in a position to finally lay down the first bid, the query over the future of Commodore has been thrown into the air yet again.

While the headline might point to some kind of resolution, David Pleasance's revelation that it they had made the first bid has been undermined by the apparent lack of verification from either Franklyn Wilson, the liquidator in the Bahamas, or Alex Amor at CEI in Miami.

At the World of Amiga show held over the weekend of the 9-12 of December, I met with David Pleasance to ask for the latest report on the buyout. This is what he had to say:

"Last Tuesday we made a definitive bid to the liquidator and that bid was supported by documentation that proves that we have all the funds. Plus, we paid the deposit and that went in last week.

On the 21 December '94 there is a creditors meeting and we're going to ask them to approve the offer - we don't actually need their approval but it would help if we had it because it means nobody can argue about it [the first bid]." When *Amiga Computing*

phoned Franklyn Wilson, the liquidator based in the Bahamas, it would appear that he wasn't so sure that the initial bid had been made: "Well, let me put it this way. Evidence of good faith is being put forward to us

Why the delay?

Franklyn Wilson, the liquidator dealing with the Commodore bankruptcy, told *Amiga Computing* why there have been so many delays, setbacks and other problems that have hampered the buyout procedures:

"It's taking a long time, while the Commodore corporate structure might have been particularly efficient for regulatory and tax reasons as a going concern, it is a literal nightmare for a liquidation because of the multitude of jurisdictions and because of the complexity of the corporate structure. It's a constantly shifting sand as more players get in the equation. That's a true cause of the problem."

With the first bid made, we should be seeing a resolution very soon now.

but we do not yet have a definitive agreement. That's the bottom line."

CEI's Alex Amor is baffled by Pleasance's statement concerning the first bid: "I can't speak for Mr Pleasance and certainly can't make any comments on that, but I would find it very hard to believe that the liquidator had not informed us of that event... we're still talking to the liquidator on a daily basis. I think that if the first bid had occurred, they would definitely tell us so."

On phoning David Pleasance two days later, he reaffirmed that the bid had been made: "I can assure you that he has received the bid and has also received the money. My understanding is that the money should have gone into the bank account yesterday [15/12/94]."

So, despite the initial confusion that has plagued the buyout from day one, it would appear at last that the bidding process can begin a proper and Amiga International have taken the first vital step towards bringing about the Amiga's revival.

What the future may hold

Let's say, for the sake of argument, that Pleasance's claims of signing the first bid are cemented in concrete and brings Amiga International a step closer towards dealing in the fierce and competitive world of computers. At the recent World of Amiga show, Pleasance gave us a more thorough breakdown of what we can expect to see from them in the immediate future. "There are five and half million Amigas in Europe - a lot of them are 500 and 600s and there are many people who want to upgrade. What they want is something that is more powerful than a 1200 but less expensive than a 4000."

"So what we would like to bring out, if we can, is a product which is probably 030 based in a PC-style case, has a couple of expansion slots and the ability to have a CD32 compatible in-built drive. It will be a price somewhere between the 1200 and 4000 so we don't upset people who own 1200s... I think we'll sell a lot of them."

And Amiga International's managing director was more open with his plans for the new machine on its way in the next two years - if they win.

"We've got a new system which is probably about 25 per cent developed and I believe is going to be at least 18 months to two years before it's completed. Essentially, it takes a RISC-based form and, with our own technology, the chip will have a full 3D rendering engine - texture mapping, polygon control, 22 voice 16-bit

stereo, Mpeg compatible all in the chip. "From that chip we will have a whole range of consumer products right up to the top-end workstations in a modular way, so the low-end may have one or two of these modules with expansion for more. We want to make them fully expandable."

Pleasance continued: "To give you some idea of the power of the product, we will have a CD-based console which will be, in our opinion, the most powerful product of all the consoles. More so than the Ultra 64 from Nintendo - the specifications for that machine are impressive. Our machine is approximately 20 times more powerful than that. In terms of a comparison with the new workstation to an A4000, we're talking about something 35 times more powerful than the 4000."

"The other thing is that the workstation, because of the technology of RISC, will allow you to run Dos products through Windows NT and I'm told by the engineers that the Dos software will run five times faster than Pentium."

Pleasance is not worried about the two-year gap between finalising the contract and the new machine appearing. He believes that with all the third-party support the Amiga receives, the 060-based machines and other areas of expansion will provide ample opportunity for power-hungry consumers to get their hands on faster technology.

NEWS BRIEFS

Bargain hunt

To coincide with the New Year, EM Computers are offering a range of discounts across their shareware and PD range for discerning customers. Buyers placing an order for two volumes of their software can expect discounts of £3. The system means that £1.50 is taken off the price of each volume subsequently ordered.

There are also special offers on the Safari fonts volumes and, for further details, phone Errol at EM Computer-graphic on 0255 428666.

Sales figures rise

The '94 Christmas period has shown a significant rise in software sales after the dismal purchasing performance during the rest of the year. Mortal Kombat II on the Amiga has hit the top spot in Gallups' all-formats home computer charts and the Amiga top twenty, showing software publishers that there is life in the machine yet.

With the super consoles such as the Sega Saturn and the Sony Playstation arriving this year at some point, there is a hope that the industry will be pulling out of its flat sales period and stabilising in '95.

Ribbon ties the knot

The States-based company, Blue Ribbon have selected Premier Vision in London as their new UK support office. For pre-sales advice on the American firm's music products for the Amiga, phone the Premier Line on 0181-332 6959.

Another brick in the wall

With a mass of new, improved super consoles dreading themselves up on the shores of the UK at some point this year, Apple, those of Macintosh fame, are releasing their own 'multimedia' player called, wait for this, the 'Pippin'.

The company are gearing their new product as a CD-based general home education and entertainment system which can play games, music, videos and provide an information reference.

The machine is based round PowerPC technology and should appear in late 1995.

World wide success

Those of us cynical enough to think that the World of Amiga Show would be anything but a success were very fortunately proven wrong. The Wembley-based show was mostly full for its three days, with exhibitors from all over the world showing off their various hardware and software additions for the Amiga.

Among the exhibitors were some of top-end companies such as NewTek - whose video projector constantly pumped out Lightwave sequences taken from television shows - Digital Processing System and its PARcard playing Aardman Animation's *The Wrong Trousers*, and Wolf Dietrich from Advanced Systems and Software could be found at the Gordon Harwood stand showing off the world's fastest Amiga in the shape of the Cyberstorm 060 card.

GRAPHICS

The best arts-related software of the exhibition was Almathera's Photogenics, a graphics manipulation package whose versatility and options could make the likes of Adobe Photoshop pause for a moment to look over its shoulder. For more details about Photogenics see the review on page 40.

CD32 owners can look forward to a wide selection of video CDs coming their way once the FMV cartridge goes into production again. The hit with the punters was the Queen Greatest Hits CD that features the best of the much celebrated band's pop promos, with full video controls. Children's programming was catered for by The Shoe People, the popular kid's programme where users can select an episode from a variety on offer.

Commodore took up the main central stand with a TV wall playing effects and video CDs. Most of the hall though was taken up by a performing area where a mixture of entertainment artists strutted their stuff to varying degrees of success.

There wasn't much of a turnout from the games houses with only Ocean, Gremlin and Team 17 on site to flag their goods, but some of the game discounts on offer were rather good - where else can you buy a copy of Acid Software's excellent



Peter Brameld, organiser of WOA:
"The show has gone well"

Skidmarks for E2? Peter Brameld, the organiser behind all the shows for the last 14 years, was enthusiastic about customer response: "In terms of volume, this show was not as highly attended as others but the people there were spending a lot of money. The show has gone well."

Retailers were equally happy with the weekend. Silica's Ken Browning said: "It's obvious from the enthusiasm of the crowds that the Amiga still has a bright future. If the buyout is sorted out within the next couple of months, I'm sure retailers can expect a New Year bonus from the UK's Amiga fans."

Tony Ianini from Power Computing echoed the positive note: "The show was well attended, well organised and professionally run throughout the three days, and has certainly breathed a new lease of life into the Amiga market."

Kieron Sumner from Commodore also chipped in with: "Many of the overseas visitors were amazed at the strength of support for the Amiga in the UK. As a result, many have already booked larger stands for next year's show."

REACTIONS

David Pleasance was at the show to offer advice to regular Amiga punters. And his reaction? "What I'm most happy about is the fact that we have people from America and all over Europe actually exhibiting here. That, I think, is a very good indication of the support that we have for our MBO [management buy out] in the face of the US competition."

"Another thing I'm very happy with is that the end users are coming along with money in their pockets and are showing their support for the brand. I don't think there are many single brands that ever get this level of support. It's phenomenal, I'm really delighted with that. I wish we'd been able to advertise the event a bit better but, considering we haven't got much money, I think we've done a pretty reasonable job."

Whatever the outcome of the bid, the hope is to hold another show come Spring, followed by a more major venue at Christmas.



World of Amiga Show: Proving that there is still life in the Amiga

HARD DRIVES

SCSI/IDE HD'S

All our hard drives come complete a 12 month guarantee with fitting cable, screws, partitioning software and full instructions.

2.5" IDE HARD DRIVES

80MB HARD DRIVE	£139.95
120MB HARD DRIVE	£159.95
170MB HARD DRIVE	£219.95

3.5" SCSI/IDE HARD DRIVES

270MB HARD DRIVE	£199
350MB HARD DRIVE	£239
540MB HARD DRIVE	£279
1GB HARD DRIVE	£629
2GB HARD DRIVE	£1099

ROM SWITCHER BUILT-IN

new



M-TEC EXT.HD

The AT-500 IDE external hard drive for the A500, comes with an internal ROM socket so you switch between a 2.04 and 1.3 ROM without having to open your Amiga casing.

AT-500 BARE	£99.95
AT-500 360MB HD	£259.95

VIDEO BACKUP 3.0

BACKUP FEATURES

Innovative product that allows you to backup your software onto a VHS-cassette. You can now fit up to 520MB on a four hour tape. The award winning Video Backup System now has new backup modes for Amigas with a 68020 or a higher CPU, a new user interface that also runs on the Workbench screen, a two times speed improvement over Version 1.5, data compression over three times faster than Version 1.5 and you can also watch television on your 1084s monitor!

VIDEO BACKUP SCART

VBS SCART VERSION	£65
VBS PHONO VERSION	£60
VBS V3.0 UPGRADE	£20



CD-ROM DRIVE



OVERDRIVE CD

This external CD-ROM drive comes with the following features: PCMCIA interface, Doublespeed drive, Emulates CD32 CD-ROM device, Multi session and PhotoCD compatible.

OVERDRIVE CD-ROM	£199
AMINET 3 SHARE	£10
MEETING PEARLS	£10
GOLDFISH	£25
FRESH FISH 6	£25
AUDIO RESOURCE	£25

new



OVERDRIVE HD

This external PCMCIA Hard Drive allows you to fit a 3.5" IDE hard disk and included in the pack is the installation software which allows you to configure the drive to your own needs.

OVERDRIVE HD BARE	£99
OVERDRIVE HD 360MB	£259

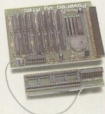
68020 A500/RAM



68020 A500

Full 68020 processor with MMU
Works with all A500's including A500+
Optional 68881 or 68882 FPU (PLCC or PGA)
Up to 8MB additional FAST RAM
No soldering required
Fully auto-configuring
Most programs speed up by 300%
Supports Motorola cache system
Supports Kickstart remapping, disable jumper

68020 A500 BARE	£99.95
68020 A500 4MB	£239.95
68020 A500 8MB	£399.95



A500 2MB RAM

A 2MB RAM board for the A500 which fits in the trap door slot.

A500 2MB RAM	£89.95
--------------	--------

new

AWARD winning PRODUCTS

44a/b Stanley St. Bedford MK41 7RW



telephone 0234 273000

facsimile 0234 352207

Delivery next day £3 2-3 day £2.50 Saturday £10
Deliveries are subject to stock availability

Check us out at Power Computing Ltd

Name	
Address	
Postcode	

Telephone	
System owned	
Description	
Check/PO for £	allow upto 7 days to order
Credit card No.	
Expiry date	Sign



EMPLANT

The World's First Multi-Platform Emulation System!

**Come
and meet
Jim Drew
at The World of
Amiga Show**



EMPLANT runs high powered programs like Quark Express ... and Adobe Photoshop!

New Prices!!

Macintosh® Emulation Module

The Macintosh emulation module is a 'generic' Macintosh with the speed of the emulation depending on the processor your Amiga is using. An A3000 is equivalent to a MAC IIcx. An A4000 is equivalent to a Quadra 900. Support for up to 16 colours is provided for non-AGA machines. A4000 owners can use a full 256 colours! Up to 24 bit (16 million+) colours is supported using third party video boards such as: Picasso II, EGS-Spectrum, Vivid-24, Rainbow II, Rainbow III, Visiona Paint, Merlin, Retina, Retina Z3, Piccolo, EGS110/24, and OpalVision! Built in multiple file transfer allows for quick, easy transfers between the Amiga and MAC emulation. Support for AmigaDOS devices, Scanners, CD ROM, MIDI, SyQuest removable drives, Printers, Modems etc. Full stereo sound is supported too! Requires Macintosh ROMs (not supplied).

£586DX¹ Emulation Module

We are now in the final testing stage! We have added the next generation CPU instruction set! The £586DX emulation module offers a high speed 586DX (FPU, MMU, and new instruction set) emulation with complete low-level architecture support, giving you the ability to run DOS, OS/2, NT, Windows 3.x, and even Chicago! Support for MDA, CGA, EGA, VGA, SVGA video modes, sound, joysticks, floppy drives, hard drives, extended memory, and more!

The possibilities with a multi-platform machine are endless. Now you can take advantage of a whole host of great software previously unavailable, and use them to compliment each other. By upgrading your Amiga (extra memory, faster processor, etc) you instantly upgrade your emulation too!

Blittersoft are the exclusive European distributors for Utilities Unlimited. We provide a full technical support service, as well as software upgrades.

BLITTERSOFT.

40 Colley Hill, Bradwell, Milton Keynes,
Bucks, MK13 9DB U.K.
0908 220196 24hr Order line
0908 220196 24hr Fax line
0908 310208 24hr BBS (2400-28.8K)
Also pleaseurf@cix.compulink.co.uk
Fidonet 2:252/328.0

UK/EURO DEALER ENQUIRIES WELCOME

Four different versions of EMPLANT are available.

EMPLANT BASIC	Base emulation card	£249.95
EMPLANT OPTION A	As Basic + AppleTalk	£299.95
EMPLANT OPTION B	As Basic + SCSI	£299.95
EMPLANT DELUXE	As Basic + Opt. A & B	£349.95
£586DX ¹ MODULE	For all versions	£ 99.95

All emulation modules require an Amiga with Zorro II slots, and a 68020 (or better) CPU.

Post/Packing £5.00 3 day or £8.00 next day.

Visa/Mastercard accepted (2.5% Surcharge). E&OE.



Home Office put the boot in

Despite the software industry's attempts at self-regulation through the introduction of an age rating scheme on all computer titles, it has now become apparent that '95 will see an increase in the number of games submitted to the British Board of Film Classification.

Anything with a highly violent content, even the likes of Super Street Fighter or Mortal Kombat II, could find themselves on the receiving end of a BBFC certification. The reason for the enforced change is the new Criminal Justice and Public Order Act which means video games are no longer exempt from the Video Recordings Act.

After not being able to come to a decision themselves, ELSPA and the Video Standards Council asked the Home Office for advice on whether human and animal characters should be treated as 'real' or not. The subsequent response was that animated and digitised humans and animals should be treated as 'real' ones - in other words, if the characters on screen look like the real thing, then they are just that in the eyes of the law.

Unlike the ELSPA's rating system, anyone selling an 18-rated game to a minor could find themselves paying a hefty fine or, worse still, spending time in prison.

The ramifications on the industry could also be negative as well - this year has seen a refreshing rise in adult-themed games. This genre, along with fighting games, could be under threat because the bulk of sales come from children and teenagers and therefore games will have to be adapted/watered down to reach the widest possible audience and to avoid breaking the law.

Budget genlock from Silica

The benefits of quality titling on even the most amateurish of videos can make a real difference in presenting work to friends, family and colleagues. The arrival of the Amitek Fusion Genlock from Silica could help video makers add that much needed professional finishing touch.

Coupled with Scala's HT-100 titling system, the complete package costs £99 and is available from Silica on 081-309 1111.



Amitek genlock: Budget video making for home users

Toaster rival arrives

The OpalVision system has been around now for two years, providing users with a 24-bit display board and a paint package. We've been promised the Toaster-beating video processor that plugs directly into the board for several months now, without it appearing.

But it would seem that the boys in Australia have finally got round to releasing the add-on and judging from its spec list, it could be very special indeed.

Featuring the long-awaited Roaster chip, the processor allows the user to create text, insert chroma or luma keyed video between definable foreground and background layers of a 24-bit image, real time colour processing of live video and an unlimited number of transitions and Digital Video effects.

These include wipes, fades and organic effects such as tumblers, page peels, picture-in-picture, image wrapping and more.

For more details on the system, contact Ian Greenaway at White Knight Technology on 01920 822321.

It's an open and closed 'krypt', guv

With the cost of software piracy placed at £778.5 million in the UK alone, ELSPA's crime unit continues to make headway into the problem.

The operator of a bulletin board in Birmingham has been fined £500 and had over £3,000 of computer equipment confiscated following a raid initiated by the Crime Unit.

The BBS, called the 'Krypt', contained large amounts of software for the Amiga which users could copy in exchange for one of their own titles. The bulletin board operator, Robert Frank Butler, pleaded guilty to two specimen charges of distributing copyright software.

John Loader, head of the ELSPA Crime Unit, commented: "Obviously this degree of loss cannot continue unchecked, which is why ELSPA has been so active in pursuing software pirates and bringing them to justice."

Anyone with information concerning illegal software should call Loader on 0386 833810. All calls will be treated in the strictest of confidence.



Stop phoning!

Eager Amiga Computing readers who are trying to lay their hands on a coverdisk that featured Infotile should stop trying to phone its makers. Their number is now defunct but, unfortunately, some people have been going through directory enquiries, finding a

similarly named company, and phoning them up instead, subsequently jamming their switchboard. We ask anyone tempted to phone Profile Business Forms to try and get hold of Infotile, to not bother because they are not related at all to that

The AC team

EDITOR Paul Austin
TECHNICAL EDITOR Darren Evans
ART EDITORS Terry Lesky
Terry Thiele
Adam Phillips
Judith Chapman
NEWS EDITOR Jonathan Maddock
PRODUCTION EDITOR Tina Hackett
Garrett Lofthouse
Dave Cusick
Simon Lees
Jane Norrington
Sue Horsfield
Barbara Nevill
ADVERTISING MANAGER Lucy Oliver
AD SALES Sandra Childs
AD PRODUCTION David Stewart
MARKETING MANAGER David Stewart
PRODUCTION MANAGER

COMMERICAL DIRECTOR David Wren
COMMERCIAL DIRECTOR Denise Wright
DISTRIBUTION COMAG (0893) 444055
SUBSCRIPTION 031-337 2961

Member of the Audit Bureau of Circulations

ABC 54,305

July-Dec 1993

Published by IDG Media
Media House, Andover Park,
Manchester M10 4JF

Tel 0625 678988

Fax 0625 659652

CHAIRMAN Richard Heave
MANAGING DIRECTOR Ian Bloomfield

We regret Amiga Computing cannot offer technical help on a personal basis either by telephone or in writing. All reader enquiries should be submitted to the address in this panel for possible publication.

Amiga Computing is an independent publication and Commodore Business Machines Ltd are not responsible for any of the articles in this issue or for any of the opinions expressed.

©1994 IDG Media. No material may be reproduced in whole or in part without written permission. While every care is taken, the publishers cannot be held legally responsible for any errors in articles, listings or advertisements.



For six years Amiga Computing has been the leading magazine for Amiga enthusiasts. As a key member of the IDG communications group, Amiga Computing promises to inform, educate and entertain its readers each month with the most dedicated coverage of the Amiga available.

12 issue subscription £29.95 RUK, £34.95 (ECC) £34.95 (World)
Ongoing quarterly direct debit: £3.49 (UK only)

Printed and bound by Duncan Webb Offset (Maidstone) Ltd



CRAZY DISK PRICES!! GUARANTEED

GREY-TRONICS LTD

LOWEST PRICES

BEST SERVICE

RAPID DELIVERY

SALES FREE CALL 0500 737 800

SALES HELPLINE 081 686 9973 / 081 781 1551

DISKS DISKS DISKS

100% CERTIFIED ERROR FREE

+ LOCKABLE BOXES

	Grade A+	Grade B	
50 3.5" DS/DD	£14.99	£14.49 + 100 cap lockable box	Add £4.00
100 3.5" DS/DD	£24.99	£24.49 + 100 cap lockable box	Add £4.00
150 3.5" DS/DD	£38.99	£38.49 + 2 x 100 lockable box	Add £8.00
200 3.5" DS/DD	£48.99	£47.99 + 2 x 100 lockable box	Add £8.00
300 3.5" DS/DD	£73.99	£69.00 + 3 x 100 lockable box	Add £12.00
400 3.5" DS/DD	£98.99	£92.00 + 4 x 100 lockable box	Add £16.00
500 3.5" DS/DD	£123.99	£110.00 + 5 x 100 lockable box	Add £17.50
1000 3.5" DS/DD	£229.99	£205.00 + 10 x 100 lockable box	Add £30.00

FREE LABELS + FREE DELIVERY BY PARCEL FORCE

NEW

AMIGA CD32



£229.99

SK1 Modular Expansion	£187.99
Keyboard for CD32	£36.99
Competition Pro Pad	£15.99
CD32 to Scart	£11.99
CD32 to Amiga 1200 in situ	£34.99
Disk Drive for CD32	£48.99
100 games	£19.99
CD32 Lens Cleaner	£9.99

Add £2.00 p&p

3.5" BULKY LOCKABLE BOXES
50 Capacity.....£4.05
100 Capacity.....£4.993.5" STACKABLE BOXES
100 Cap drawer.....£9.99
80 Cap Base Boxes.....£9.99AMIGA 1200 PACKS
AMIGA 600 PACKS
CALL FOR LOWEST PRICES

SMART BUY

* STARTER PACK £14.99 For: 10 Disks, Mouse Mat, Microswitch Joystick, 50 Cap Storage box, Disk cleaner & Games for A1200 USERS ONLY WHILE STOCKS LAST

SYNDICATE.....£9.99 PHILLIP FANTASIES.....£9.99
CHAMPS ENGINE.....£9.99 NICK FAULD'S GOLF.....£9.99
* Add £3.25 P&P

ACCESSORIES

3.5" Disk head Cleaner	£2.99
Mouse Mat	£2.25
1000 Labels	£6.99
Amiga Disk Drives (Commodore/Amitec/Zappo)	£34.99
Microswitch Mouse Joystick/Alt	£12.50
Universal Printer Stand	£4.99

ADD £3.00 FOR DELIVERY

TOP QUALITY BIRDBONES

	Black	Camouflage	Colour
Panasonic KXP1124/1125/1186/1190	8.25	3.25	N/A
Panasonic 2133/3180	8.15	4.00	13.45
Citizen 1200/2400/24	N/A	2.75	13.60
Citizen 2200/2400	N/A	2.75	13.60
Star LC100/20	N/A	2.95	10.90
Star LC200	N/A	3.35	12.25
Star LC 2410/24200	N/A	2.35	12.25
Epson 6400/6200	N/A	4.00	N/A

Add £2 for Delivery

ZAPPO SMART STOR HARD DISK

Provides games and data portability to A600/A1200

260Mb.....£209.99 540Mb.....£309.99

AMITEC HAWK RAM BOARD & ACCELERATOR

2Mb Ram.....£127 Alternative.....£120

4Mb Ram.....£187 Alternative.....£180

Call for GVP A1230-8 40MHz & 50MHz Accelerators

ZAPPO CD ROM FOR A1200 WITH 5 GAMES

Brutal Football - Alien Breed - F17 Challenge - Quark - Project X

£216.99 + Free P&D

AMIGA CABLES

Amiga to TV Scart	£10.99
Amiga to Sony TV	£10.99
Amiga to Amiga	£11.99
Modulator overlocking lead 23M/23F	£7.75
Pyylon 1M Joystick	£10.99
Mayerick 1M Joystick	£7.99
Technopass Control Pad	£5.99
Joystick Splitters	£5.99
Joystick Extension Lead 10M	£5.99
Printer Lead	£4.00

DUST COVERS

Amiga 1200/500/500P/600	£4.00
Commodore/Philips monitors	£4.00
Star/Citizen/Panasonic Printers	£4.00

INKJET CARTRIDGES & REFILLS

HP Deskjet Black Dual Capacity Cartridge	£22.99
HP Deskjet Black Dual Capacity Refill	£15.99
HP Deskjet 500 C Colour Cartridges	£25.99
HP Deskjet 500 C Colour Refill	£16.99
Canon BJ 10e (ex Black Ink Cartridges)	£16.99
Canon BJ 10e (ex Black Ink Refill)	£9.99

Add £2 for Delivery

PRINTERS

PANASONIC 2135

24 PIN COLOUR

£159.99

All printers free lead & delivery



Panasonic 2135 24 pin mono Free sheet feeder £159.99

Panasonic 1150 9 pin mono £119.99

Panasonic KXP 4450 LED page printer £399.99

Canon BJ1050 ink jet £179.99

Canon BJ2000 ink jet £229.99

Canon BJ4000 £394.99

Citizen ABC 24 pin colour £154.99

Citizen Swift 200 24 pin colour £179.99

Citizen Swift 240 24 pin colour £214.99

Citizen Project II inkjet colour £244.99

Hewlett Packard 320 colour inkjet £249.99

Hewlett Packard 320 inkjet £224.99

Hewlett Packard 520 inkjet £249.99

Hewlett Packard 540 colour inkjet £429.99

Star LC100 9 pin colour £174.99

Star LC240 24 pin colour inc. sheet lead £169.99

Add £12.50 for Word Processor or Ribbon sheet cover, printer stand, 500 Ad paper when purchased with printer

MONITORS

Philips 8833/8

£199.99

As long as stocks last

Microvitec 1438

(Free speakers) £294.99

Philips 8833/8 £199.99

Sharp TV/Monitor £169.99

HOW TO FIND US



ALL PRICES INCLUDE VAT & DELIVERY (unless otherwise stated). Delivery within 2 days (UK MAINLAND ONLY). ADD £8.00 FOR NEXT DAY DELIVERY. CALL OR SEND CHECKS/POSTAL ORDERS TO:

GREY-TRONICS LTD, UNIT 1015 WHITGIFT CENTRE, CROYDON, SURREY CR9 1UU

SALES HELPLINE: 081-686 9973 Mail order prices only FAX: 081-686 9974 All offers subject to availability. E&OE. Prices/Pack details may change without notice due to currency fluctuations. Please allow 4 working days for clearance to ship.

U.K. & INTERNATIONAL DELIVERY SERVICES - (BFO ORDERS WELCOME + SURCHARGE)



LAND



AIR



SEA

Studio in a box

Digital Creations' new SuperGen SX studio bundle is billed as a complete broadcast-quality studio in one box. The bundle, which works with all Amigas from the A500 through to the A4000T, includes a genlock, video titling program, and paint software.

The genlock, the broadcast-quality SuperGen SX, is a standalone, external, S-Video genlock that supports NTSC and PAL video. Video titling is handled with Broadcast Titler 2.0 and paintbox effects can be created using the Brilliance 2.0 paint program which has been included.

With this package you have everything you need to overlay titles, create animated borders and

*More of your dream products from
our American scout, Denny Atkins*

graphics, and fade between Amiga graphics and an external video source. The software supports both ECS and AGA systems.

At a retail price of \$799.95, it's a nicely priced way to turn your Amiga into a video-production studio. For more information contact Digital Creations (now a Play company) on +44 916-344-4825.

USA



news

Printer helper

If you own a Hewlett Packard DeskJet or LaserJet printer, you've probably been frustrated that the AmigaDOS printer drivers don't let you take full advantage of your printer's capabilities. Creative Focus have the cure – the Super series of printer drivers.

Super DJ3 is an enhanced driver for all DeskJet models, including the high-end DeskJet 1200C as well as the new DeskJet 540 and 560C models. It includes much better graphic routines than the Commodore drivers, and colour-correction features that will help prevent dark, muddy, oversaturated printouts.

Super LJ4 supports the enhanced resolutions of LaserJet models such as the 4L and 4P, as well as older LaserJet printers. Both Super DJ3 and Super LJ4 Preferences go one better by letting you select the printer's built-in and add-on typefaces.

Each product retails for \$60. They're available from Creative Focus, PO Box 580, Chenango Bridge, NY 13745 USA; phone (607) 648-4082. If you've picked up Epson's fantastic new Stylus Colour inkjet, which can print nearly photographic-quality 720 dpi images, only to find that all the Epson drivers for the Amiga support only 360 dpi, you're in luck.

Endicor Technologies have released the Epson Stylus Colour Driver 1.0 which handles all of the printer's resolutions. This \$44.95 driver supports the high-quality Microwave printing mode, and has a compression feature that speeds printing. Endicor claims an Amiga 3000 prints at the same speed as a 486/66 with Epson's driver. For more information call Endicor at (210) 650-4988, or e-mail info@endicor.com.

Amiga on the road

Are you upset that Commodore never made a portable Amiga? An American company claims they'll take your Amiga 1200, 3000, or 4000 and convert it into a transportable laptop computer.

Called PAWS – the Portable Amiga WorkStation – this unit includes a case, power supply, battery, transformer, colour screen, and a trackball interface – everything you need to make your Amiga easily transportable. The company says it will be shipping units by the time this goes to print, so I'll try to follow up on this in a future issue. If you can't wait, contact Silent Paw Productions, PO Box 1825, Manassas, VA 22110.

Shameless self-promotion

Early 1993 saw the release of my first Amiga book, Denny Atkins's Best Amiga Tips and Secrets. The 250-page book, which covered every Amiga from the 1000 to the 4000, received great reviews and positive feedback from Amiga users. Unfortunately, the book's publishing company shut down earlier this year, and it's been off the market.

I'm happy to announce that I've nearly completed an updated version, Denny Atkins's Best Amiga Tips and Secrets, second (Electronic) Edition. Along with the ridiculously long title comes a new form of distribution: This edition will be sold on floppy disk. The disk format makes searching for topics and troubleshooting information much faster and, thanks to AmigaGuide indexing, easier. Important sections can be printed out to keep as reference in case you have computer problems.

The disk contains the complete text of the first edition, with updates where appropriate. Topics covered include

AmigaDOS tips and tricks, Workbench secrets, printing tips, hardware upgrades, CD-ROM, emulation, and telecommunications.

New sections include tips on AmigaDOS 3.1 and a guide to finding Amiga information on the Internet. Whether you want to find out how to make directories with icons from the Shell, view the secret messages in Workbench, get the best printout from your colour printer, or diagnose that red screen you see when booting your Amiga, you'll find it in this electronic book.

The electronic book sells for \$20 (add \$3 shipping and handling in the US, \$5 outside the US; cheque or money order in US funds only) and is distributed by Upstart Publishing, PO Box 4711, Greensboro, NC 27404 USA.

*The all-new version of
Denny's book, with
plenty of hints and tips*



Amiga Computing
FEBRUARY 1995

"Why not FAX our Sales Team for a Quick-Quote!"



"Call us, we're always keen to offer GREAT DEALS on everything for your Amiga!"

LOW PRICES, EXCLUSIVE PRODUCTS... EXPERT ADVICE and MUCH MORE FROM THE UK'S FAVOURITE AMIGA DEALER

0.5GB FOR
YOUR
AMIGA
NOW!!

A1200 INTERNAL HARD DRIVES



FREE...
ESSENTIAL
GH HARD
DRIVE
MANUAL

CAPACITY	Self Fit	Fitted
130Mb Internal	£179. ⁹⁵	£204. ⁹⁵
170Mb Internal	£199. ⁹⁵	£224. ⁹⁵
200Mb Internal	£229. ⁹⁵	£254. ⁹⁵
250Mb Internal	£269. ⁹⁵	£294. ⁹⁵
340Mb Internal	£334. ⁹⁵	£359. ⁹⁵
520Mb Internal	£429. ⁹⁵	£454. ⁹⁵

JUST LOOK AT THE BENEFITS OF OUR FITTING SERVICE...
ONLY GH CAN OFFER YOU ALL THIS AT SUCH LOW PRICES!

LOOK HERE!
WE'VE GOT
130MB DRIVES
AT UNDER...
£180!

THE UNIQUE GH
FITTING SERVICE...
Why not let our
engineers collect
your Amiga and fit
your drive for only
£25 extra!
The price includes:
Collection of your Amiga
& fitting by experienced
GH technicians
Formatting with WinBench
& HD configuration and
installation of back up
and repair software
& FULL 1 Year GH Gold
Collection Warranty
Course return to you



External Cables
with 130Mb!
LOW Prices
start at just...
£264.⁹⁵
CALL GH for other
sizes/prices

BOOKS

AMIGA BOOKSHOP
Send a Small Sample of the GH stock...
Please phone and ask about
more books in the GH range!

Amiga Workbench 1 & 2	£14.50	Mastering Amiga A800S	£18.50
Amiga 1200 Insider Guide	£14.50	Mastering Amiga A800X	£18.50
Amiga Assembly Insider Guide	£14.50	Mastering Amiga Printers	£18.50
Mastering Amiga DOS...	£14.50	Amiga Disks and Drives	£14.50
Version 2, Volume 1	£18.50	A2100 - Next Steps	£14.50
Version 2, Volume 2	£18.50	A2100 Beginners Pack	£12.50
Version 3 Reference	£18.50	2 GBooks, video & tutorial disks	£14.50
Version 3 Tutorial	£18.50		

NEW Amiga Desktop Publishing £14.95

AMIGA COLOUR MONITORS



MICROVITEC 14" COLOUR MONITOR 12.8 Dot Pitch, 60-Hz Colour (requires separate speakers), Ideal for Amiga, Acorn, Si, PC, VGA, etc. Cable included FREE! Monitor Only £299.⁹⁵ (Please see Speakers)	PHILIPS CM833 14" 17" COLOUR MONITORS One of GH's best selling monitors ever! We have secured... LIMITED STOCKS of this great all round display. Plug straight into your Amiga with the cable supplied (FREE) by GH!	PHILIPS PM2000 17" COLOUR MONITOR 2000 Character Resolution! 19" PST high Definition & Fastest! 16-bit! Includes Remote, Long Aerial, Head phone socket, front panel Audio/Video input, SCART socket (for direct computer connection, FREE Amiga Lead!) Monitor & Speakers £329.⁹⁵ (Please see Speakers)	PHILIPS DITRE LEVEL 14" 17" COLOUR TV Ideal first time display and TV too! Includes Remote, front panel Audio/Video input, SCART socket (for direct computer connection, FREE Amiga Lead!) Monitor & Speakers £329.⁹⁵ (Please see Speakers)	PHILIPS DITRE LEVEL 14" 17" COLOUR TV Ideal first time display and TV too! Includes Remote, front panel Audio/Video input, SCART socket (for direct computer connection, FREE Amiga Lead!) Monitor & Speakers £329.⁹⁵ (Please see Speakers)
---	--	---	--	--

AMIQUEST EXTERNAL HARD DRIVES



COMPACT AND
PORTABLE DESIGN!

CAPACITY	GH Price
130Mb External	£249. ⁹⁵
170Mb External	£264. ⁹⁵
200Mb External	£299. ⁹⁵
250Mb External	£324. ⁹⁵
340Mb External	£399. ⁹⁵

Se small it can be transported with ease for Portable Power!

AMIQUEST A600/1200 PORTABLE EXTERNAL HARD DISK DRIVES

No taking your Amiga apart... just plugs into the PCMCIA slot of your A600/A1200 computer. Fantastic 2.5" IDE device that's small & easy to fit. Faster access times than internal units. Use as a second HD (for backups etc). Full 12 months warranty.

Doesn't invalidate your GH warranty!

CAPACITY	GH Price
130Mb External	£249. ⁹⁵
170Mb External	£264. ⁹⁵
200Mb External	£299. ⁹⁵
250Mb External	£324. ⁹⁵
340Mb External	£399. ⁹⁵

Units with REAL Portable Power!



SUPRA 386Hz ACCELERATOR
For A500 or 500+...
£129.⁹⁵



Pro GRAB
ONLY...
£129.⁹⁵
OR BUILT IN!

OVERDRIVE 35 EXTERNAL HARD DRIVE - Plug and Go!

Simply plug this great HD into the PCMCIA slot of your A2100! No taking your Amiga apart. Retains full CBM warranty. Casing matches the Amiga's, pre-formatted, tested and ready to use. Just Plug 'Go'. All models...
£429.⁹⁵ to £499.⁹⁵

CAPACITY

CAPACITY	GH Price	Full 12 months warranty on HD. Doesn't invalidate GH warranty!
210Mb External	£229. ⁹⁵	
340Mb External	£249. ⁹⁵	
420Mb External	£279. ⁹⁵	
520Mb External	£329. ⁹⁵	



HAMA GENLOCK
Professional Video! Computer effects made easier with these great HAMA products. Phone for an invoice detail!

HAMA A-CUT
CUTTING CONTROLS! Hardware your Amiga...
£199.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

HAMA 201 GENLOCK
5 Video & Composite Video...
£279.⁹⁵

"Confirm you're getting the BEST DEAL - call those friendly people at the UK's FAVOURITE DEALER!"

BUY FROM GH WITH ABSOLUTE CONFIDENCE! "As a family business established in 1955, we've supplied computers for the last 24 years. With over £32 million worth of units sold, and more than 255,000 happy customers, our trading record is second to none! Why don't you try us for your next Amiga product and find out just why we are the UK's Favourite Amiga Dealer! Phone us now - you'll be pleased you did!"

De-archiving applications - Workbench 2.0 and above

Always boot from your CoverDisk when de-archiving applications. The installer programs can be located via the install icon with the appropriate name in the WB_2&3_Only drawer.

The de-archiving procedure has been much improved and now combines the power of the official Commodore installer program with that of Workbench 2.0 and 3.0.

The installer program is designed to be powerful yet simple for the beginner and features a user-friendly interface allowing you to de-archive programs with a minimum amount of fuss. The installer programs for Workbench 2 and 3 users can be located via the icons named:

Install[program name]

eg:

InstallPRM

To run, simply double click on the icon which will load up the installer program.

Using the installer

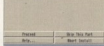
Ignore the buttons that appear when the installer program boots up and simply click on the Proceed button. The program will then copy the necessary files to RAM.

Once this has finished it will inform you that it is about to format a disk in DF0. Click

Don't forget to insert a blank disk at the prompt and before pressing Proceed



Don't forget to insert a blank disk at the prompt and before pressing Proceed



Any commands that need to be added to your User-Startup can be done with the press of a button

on Proceed, at which point you will be told to insert a blank disk ready for formatting.

Once you have clicked on Proceed, the installer will indicate that it is formatting the disk in DF0. When this has finished, click on Proceed again to start the de-archiving procedure. When the application has been de-archived you will be told where the de-archived files are. Click once again on Proceed to finish.

If at any time you are unsure as to whether you want to continue installing, you can click on the Abort Install button.

Occasionally, utilities may need to add instructions to your User-Startup file located in the S directory so that they will function correctly. If you want to add the instructions, click on Proceed when prompted.



Don't worry about the installer options. Simply click on the Proceed button



The Workbench 2.0 and 3.0 installer icon

De-archiving applications - Workbench 1.3

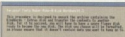
Always boot from your CoverDisk when de-archiving applications. The installer programs can be located via the install icon with the appropriate name in the WB_1.3_Only drawer.

Install[program name]_1.3

eg:

InstallPRM_1.3

When you load up the 1.3 installer the program will first prepare itself ready to de-archive the program to a



After inserting a blank disk press y to continue or "n" to abort

blank disk(s). You will then be asked to insert a disk to be formatted into DF0 and either press y to continue or n to abort.

Provided you answer y, the disk you insert will be formatted and the application de-archived.

Installing utilities

You should first run the MakeUtilitiesDisk_1.3 to format a blank disk called ACUtilities which will be used to store any utilities you eventually install.

This disk can be used with future CoverDisk utilities until it becomes full. The MakeUtilitiesDisk1.3 program will be a permanent feature of the CoverDisk.

To install any utilities, boot your machine with your CoverDisk inserted in DF0. Utilities can be installed by clicking on their install icon found in the appropriate drawer in the WB_1.3_Only drawer. You cannot specify their destination and any additions to the Startup-Sequence must be done manually.

When installed the utilities are copied to a drawer, called ACUtilities on the ACUtilities disk.

getting started

The Files drawer contains all the utilities set up so that you can use them from the CoverDisk. A Games drawer is also provided so that you can play these immediately. If you want to install the games make sure you copy all the necessary files across as listed in the CoverDisk pages.

The Amiga Computing CoverDisk is designed to be as simple to use as possible. Follow these instructions and you'll be up and running in no time!

We have now managed to fix the problem with AmigaDOS displaying a "disk is write protected" requester when a write-enabled disk is inserted. Just make sure you insert a blank disk when the installer programs tell you - and not before or after.

Installing utilities

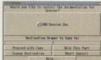
The procedure for installing utilities is much the same as installing applications, except that you can boot from your hard drive or Workbench disk. As utilities don't need to be de-archived, you are asked to specify a directory on your hard drive or Workbench disk where you would like to install them.

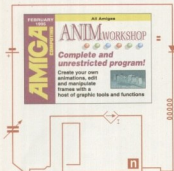
If you don't want to install to the default directory you can change it by clicking on Change Destination. The Show Drives button will allow you to select a new device and directory. You can create a new drawer for your utility to go in by clicking on the Make New Drawer button and typing in the name.

You can also make a utility disk by running the MakeUtilitiesDisk1.3 program located in the WB_1.3_Only drawer and installing your utilities to here. At times you may be asked if you want to install a utility's documentation. A tick box indicates that the documentation is selected for inclusion, but you can click on the box to ignore it or simply click on the Skip This Part button.

The utility installer programs can be found in the appropriate program drawer in the WB_2&3_Only drawer.

You can easily install documents and create new drawer thanks to the installer's user-friendly interface





The Cover Animation

Think you can become a Disney rival?

Try your hand at this package and
you may well surprise yourself

Axiom software are renowned for their range of graphic utilities and applications. Some of their most notable productions include Pixel Pro 3D, the awesome 3D object utility, and Wave Maker, the add-on for Lightwave which makes creating scenes and broadcast quality animations a breeze.

Being the kind of people who would happily help old ladies across the road, Axiom have decided to be equally nice to all you Amiga Computing readers by giving away the complete and unrestricted version of Animation Workshop v1 on this month's fab Amiga Computing CoverDisk.

This excellent processing utility allows you to easily create your own animations and provides a host of powerful features and functions to edit and otherwise manipulate animation files.

Add to this the powerful ARexx script support, along with direct support for ADPro, and you have an awesomely useful animation tool at your fingertips.

Once you have fooled around with Animation Workshop version 1 for a while, why not take advantage of a special offer to upgrade to Animation Workshop 2 which has many more features and AGA support. Turn to page 26 for full details on how to get hold of this great package.

For now though, let's go through some of the equally great features of version 1.

Essentially, Animation Workshop (AW

from here on) works by loading animation or image files into memory and then allowing you to apply various processes to the frames. This usually results in a new animation file which you can immediately view to check the results.

Just like some image processing programs allow you to work with single images, AW lets you work with all the frames of an animation. Of course, with its direct support of ADPro, AW can call it for certain operations, so it can also act as an image processor.

The main screen is divided into various areas. Top-left is the File List. This is where images and/or multiple animation files can be set up for processing. Many of the tools AW provides require these list items in

order to work. Below the File List area are the editing buttons which allow you to add, delete and otherwise manipulate each File List entry.

Top-right is the Animation Panel. There are two ways to load animations. You can load them into the File List or directly into the Animation Panel.

TOOLS

If loaded in the list, only certain tools can be applied to the animation. When loaded into the Animation Panel, most of the tools are available for processing the file and you can also play the animation from here. To load an animation into the panel, simply click on the Load ANIM button.

Once you have your images and/or



Animation panel and player

Process tools

ADPro support buttons



The Animworkshop team rivals to Disney

Amiga Disks

new workshop

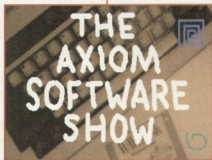
animations loaded into AW, you can then apply a large array process to them using AW's tools. These tools are accessed by clicking on the Tool button (below the Play and Clear buttons of the Animation Panel).

To select a particular tool, you can simply click on the Tool name button using the left mouse button. Doing this will select a different tool with each click.

A much better method of selection is achieved by clicking on the tool name button with the right mouse button. This will display a complete list of all available tools for selection.

Once you have chosen a particular tool, you can then apply it to your animation or images by clicking on the Execute Tool button. In most cases, the tools available will process your animation or images, resulting in a new file, which will require you to enter a unique name for the resulting processed file.

If the file is an animation, you are given the option of immediately viewing it to check the results.



Wibbly-wobbly text effects plus animated patterns



Combined photo's and animated graphics



Animation Workshop tools

- **Add Loop Frames** – lets you add loop frames within an animation.
- **Combine** – combines all images and animations in the file list into a single animation. All images and anims must be the same resolution and colour depth.
- **Convert** – converts the current animation according to the specified parameters in the displayed parameters box.
- **Create** – creates a complete animation file from the images in the File List.
- **Custom ADPro and AReXx** – these allow you to assign a custom ADPro or AReXx script as a process.
- **Flip** – this tool requires ADPro and creates a new animation from the current one that is flipped horizontally and/or vertically.
- **Grab** – lets you create an animation by 'grabbing' whatever is currently displayed on your Amiga monitor. Use CTRL+LEFT SHIFT+a to add frames at any time.
- **Histogram** – analyses the current animation and shows how many unique colours are contained in the animation.
- **Info** – displays comprehensive information on an animation file.
- **Insert** – inserts whatever is specified in the file list into the current animation in the Animation Panel.
- **REM Loop Frames** – removes loop frames from the current animation.
- **Replace** – replaces frames in the current animation with whatever is contained in the file list.
- **Reverse** – regular opcode 5 anims cannot be played backwards. This tool creates a new reversed animation to overcome this.
- **Scale** – scales the current animation to a new resolution. Requires ADPro.
- **Separate** – saves each tagged frame of the current animation as a single IFF image file.
- **Split** – breaks up the current animation into smaller animation segments.



ASQL

Author: C. O'Reilly
Workbench 2.0 and above

ASQL is a database program based on the SQL (Structured Query Language) databases. These types of database can be fully accessed by C and other such programming languages.

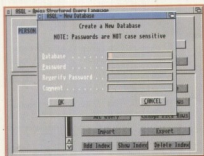
For our CoverDisk, ASQL is primarily used as a database that can provide a variety of functions and is totally definable as regards data retrieval.

Once ASQL is loaded you will be presented with the main ASQL interface. To create a new database, click on the New button. The following window will require you to enter a name for the database (maximum of eight characters), a password and re-verify password and a comment which you can enter for your own reference.

Once you have entered the necessary information and clicked on OK you will see the name of the database in the list. Now that it is created, click on Open to actually invoke the database so that you can work on it. Enter the correct password and several new buttons will become active.

The next thing to do is to create a table. Tables are individual databases contained within the main database and the use of tables allows for powerful cross referencing and also makes the data easier to read and access.

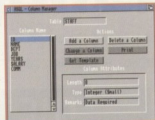
Click on the New button in the Tables section of ASQL. At this point you will see



ASQL allows you to define databases which can be instantly accessed

A time for sharing

*Treat yourself to these
shareware utilities
and improve your
Workbench no end*



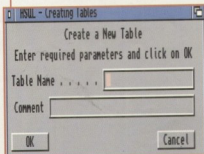
Once a Table has been defined you can then create the individual fields

required to enter a name for the table and also add a comment of your choice. With this completed the Column Manager window will appear and it is here that you actually enter the columns for your table.

Click on Add a Column and you will be able to define each column field, including the name and attributes. Most of the buttons and gadgets here are self-explanatory and basically allow you to control exactly what type of data can be entered.

Once you have completed a column, click on Add to add it to the table. The Column Attributes window will remain, waiting for you to enter more columns. If you have finished, click on Cancel to return to the main Column Manager interface.

The Column Manager will reflect your



You can have as many Tables as you want in each database you define

additions and you can click on each column to check their attributes. If everything is satisfactory, quit to the main ASQL interface by clicking on the close window gadget.

To actually enter data, select the appropriate table in the Tables list and then click on Add Data Rows. This will produce a familiar database entry window in which you can begin to enter the data for each column. Once you have entered the data, click on Add and it will be added to the table. When you have finished, click on the close window gadget and you will be returned to the main interface.

If you want to change certain data in a table simply select the table in which the data resides and then click on Change Data Rows. The window that appears looks very similar to the Add Data Rows window but offers search facilities so that you can easily locate the data row you want to change.

Type in the data you want to search for in the appropriate column and then click on Search. If the matching data is found the complete data row will be displayed. If it is not the correct row simply click on the Search Again button to look for the next occurrence of the data you entered.

Once you have located the data row you want to edit, make your changes and then click on Update Row. Alternatively, you could click on Delete Row to erase the entire data row. Once you have completed your database you can export it as data so that it can be used in all word processors and most spreadsheets, including Amiga, Mac and PC formats. You can also import data from spreadsheets and turn it into an ASQL database.

The real power behind ASQL is its in-built SQL Query ability which gives the program its flexibility. Using this language, you can extract any information in any form from a database and view it in the text viewer supplied with ASQL.

However, if you really want to use the language and learn how to access ASQL data from programming languages, you will need to upgrade to the full package which features a well-written A4 manual packed with examples and syntax.

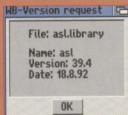
WB-Version

Author: Hakan Hellberg
Workbench 2.0 and above

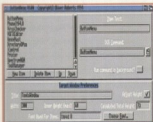
The Version command comes as part of AmigaDOS and its primary use is to inform the user of the version of particular libraries.

WB-Version, however, is a lot easier to use and provides the user with more information such as version number, author name, file name and date, and not only on libraries. For it to work properly the programmer of the file being checked needs to have included the above information, which many do.

WB-Version is primarily of use with ToolManager and users of this excellent program can simply assign it as a dock icon and then drag the file to it.



Swap the old Version command and replace it with the all new, all singing WB-Version



ButtonMenu features a user-friendly interface allowing you to create menus with ease

ButtonMenu

Author: Oliver Roberts
Workbench 2.0 and above

ButtonMenu is a neat little program that allows you to assign programs to a button interface. This means that rather than having to root through directories in order to find the program you want, you can simply click on a button to load it.

The actual ButtonMenu program allows you to define your own button menus which you can then activate with the BMX program included in the same directory as ButtonMenu. If you can't see it, select Show All from the window menu on Workbench.

When you load ButtonMenu the control window will appear with a series of gadgets. To create a new button simply click on New Item, at which point (new) will appear in the button list. Now you can type in a name for the button in Item Text and also select the program you wish to load by typing its name or selecting it from the DOS Command gadget.

At the bottom of the display you can allocate a title for your button menu and also change the width and height of it when it is eventually run.

If you choose a width or height that is less than the dimensions needed by the buttons, a requester will appear informing you of the error.

Once you have created the menu and saved it, you can run it by calling its name with the BMX program. To do this from the Shell, change the directory to that of the BMX program and type in:

```
BMX <path>button menu file name>
```

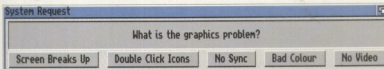
If you typed in the command correctly a window should appear containing the buttons you created in ButtonMenu.

Eventually, through a process of elimination, you will be presented with the possible cause of the problem and its part number so that you can phone up your local Amiga repair specialist and tell them exactly what the problem is.

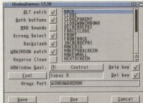
you pinpoint the particular cause of a problem.

When Diagnosis is run, a window appears at the top of the screen featuring a collection of buttons, each with a different heading. If you look closely at these buttons you will see that they cover certain elements of the Amiga that are prone to damage.

By selecting the primary characteristic of the problem you are then taken to a new set of buttons which will allow you to further define the nature of the problem.



No job's too tough for this little guy. ECDiagnosis knows the problem



WindowDaemon will allow you to take total control over your Workbench

WindowDaemon

Author: David Swasbrook
Workbench 2.0 and above

WindowDaemon is a very powerful program that allows you to alter the way in which Workbench screens and windows are handled.

When you load the program it will appear as if nothing has happened. Run the program again and the WindowDaemon interface will appear with information about the program. Click on the Settings button to customise WindowDaemon to your own preference.

The WindowDaemon settings window may look complicated but everything is fairly self-explanatory. If you double-click on the parameters present in the list, information about what that specific command does will appear, and you will be able to attach a hot key to it so that you can invoke the command automatically.

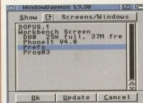
What now follows is a brief description of the more important tick box options and what they do. For a full list of the commands please refer to the on-disk documentation:

Screen Select – when selected, this option will allow you to flip through the presently opened screens and windows by right-clicking in the close screen gadget at the top-right of the Workbench screen.

Both Buttons – this option will allow you to bring windows forward by holding down both mouse buttons on the window you wish to bring to the front.

Help – by clicking once on any icon and then pressing the Help key, the icon information window will appear.

Del – by selecting icons and then pressing the Del key those icons are deleted.



With WindowDaemon you can even swap between screens and windows

SoftWood Software will go down in history, the best there's been... for ages.

The way we all communicate today has evolved through centuries of development and change.

Prehistoric man set the ball rolling when he used cave pictures as a means of describing his hunting conquests. Probably the most famous of all 'picture writing' techniques was that used by the Egyptians.

Known as Hieroglyphics, which means 'sacred carved inscription', this ancient form of information technology quickly spread to all parts of the Mediterranean region. Gradually pictures were rationalised and both numbers and letters were eventually formed.

The Greeks were the first to use these letters in a way that is familiar to us all, and they in turn passed this knowledge on to the Romans. It was then that an alphabet was formed using only capital letters: the basis of most of today's languages. Inscriptions in stone, often filled with lead or bronze, eventually gave way to clay tablets, papyrus and ultimately parchment (treated animal skin). By AD 100 parchment and papyrus books were being created. Another 600 years passed before books began using capitals for headings and small letters, known as 'half unicals', for the main body of text. Although still made by hand, pages were easier to produce and became far more legible in the process. It was the mid 15th century before sets of small interchangeable metal letters were arranged, inked and pressed against paper to form an impression. The start of a printing process that was a less labour intensive way of spreading the written word was here. It was so successful,



that with continual refinements, it remained the industry standard until the 1950's. Since then, the process of off-set litho printing has replaced 'hot metal type'.

The biggest leap in the presentation of languages has probably been achieved in the last ten years. With the adoption of computer generated text as a new standard, complicated layouts can now be designed and printed at the touch of a few keys.

And it doesn't stop there. Archiving and record keeping works hand in hand with these new methods of processing text and allows far faster methods of data retrieval than ever before. This latest technology has revolutionised the world of print, and has opened the door to an explosion of communication possibilities.

At SoftWood our constant aim is to provide you with the most powerful and up to date software possible for your specification of Amiga.

Our word processing packages have repeatedly won the favours of magazine reviewers, who have awarded SoftWood products their highest accolades, all over the world. We are continually updating and improving those products and adding new ones, such as Final Data™, to our range in our endeavours to bring the revolution into your home... and onto your Amiga.

Word Processing/Publishing...

Whatever specification Amiga you own, SoftWood have the perfect solution for your requirements.

Final Copy II™ Release 2 is at the peak of achievement when running a twin floppy based Amiga configuration, whilst **Final Writer™ Release 3**

is the only hard drive compulsory Amiga word processor - it leaps a stage ahead and doesn't make any compromises to be floppy disk compatible.

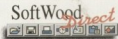
Whichever you choose, you will be assured of the latest in WYSIWYG technology and reap the benefits of still unsurpassed, easy to use, SoftWood Amiga software.



Our new Database...

The latest addition to our family,

Final Data™, is designed in the true SoftWood tradition and brings you a program which is not only extremely powerful, but also very easy to use. Indeed, you can learn to set up your **Final Data™** database, enter your information and print the results in a matter of minutes... not hours. You'll soon be generating all kinds of reports and label print runs to suit your kind of work.



bringing the revolution into your home... and onto your Amiga.

SoftWood Products Europe, New Street, Alfreton, Derbyshire. DE55 7BP. Telephone: 01 773 521606 Facsimile: 01 773 831040

Final Copy II™ Release 2

Designed to get the most out of an Amiga twin floppy drive system, **Final Copy II** offers more than just word processing (at which it naturally excels) and opens up a world where 'how the document looks' is as important as 'what the document says'. **Final Copy II**™ is ideal for that quick letter but also has powerful features that produce end results that you'd normally associated with Desk Top Publishing packages - easy to achieve, without the fuss!

Unique features such as **FastDraw™** on screen drawing tools (to generate boxes, borders, lines and arrows etc.) and **PerfectPrint™** (a system that enables you to print Postscript™ outline fonts to absolutely any printer in

both landscape & portrait modes) ensure that **Final Copy II**™ is the leader in its class. You can easily create multiple newspaper style snaking columns,

import any graphics objects or pictures (and place them anywhere on your page), scale or crop those graphics and also auto flow text around them. You can even print text over graphics and the output is always of the highest quality. **Final Copy II**™ offers the perfect balance between word processing and more advanced page layout generation - in one great program. Ease and speed of use combined with total control of the final printed presentation is available on your floppy based Amiga system right now for only **£49.95 inc. p.p.**

Final Copy II™ requires an Amiga system with twin floppy disk drives or a hard disk drive and a minimum of 1Mb. free RAM (A600 hard drive - 1.5Mb). Flexible and practical from floppy; no installation or multiple disk swaps required.

Help on memory: our products are the most economical in their use of memory. Like others, we quote the minimum memory required to load our software but we also like to make it clear that all graphical software requires more memory - depending on the functions being used.



Order by Phone: 01 773 521606



Final Writer™ Release 3

This newly upgraded release of **Final Writer**™ is building on the success of Release 2. Improvements and innovations, along with all the features that made **Final Writer**™ a winner, mean that the best is now even better still. Hard drive compulsory, the program is aimed at the power user offering the ultimate in performance. Just like **Final Copy II**™ you can take advantage of the excellent output associated with **PerfectPrint™**, but added to that is a host of other advanced features too...

FastDraw Plus™ increases the versatility of the on screen drawing tools with options like rotation.

TextBlocks™ allow you to position text anywhere on the page, at any size and at any angle.

TouchTools™ & **PowerUserBars™** make life more simple with 'one touch' control. Just click on a button to define,

change and save such attributes as font size, text position, bold, italic, underline, justification, bullets, line spacing, indents etc. One magazine sized stated "this is the closest thing to Microsoft Word to appear on the Amiga".

Final Writer™ can import, scale, crop, view on screen and output structured PostScript EPS clip-art images to any printer, and we even include 100 quality images for your use. And, if you use **Final Writer**™ printer, **Final Writer**™ extends your options... thumbnails, scaling, crop marks and halftoning. Add floating palettes, ArXes/Macros, undo/redo (for both text formatting and graphics), table of contents, auto indexing, table of illustrations, bibliography generation and lots more for real power. **Release 3** takes your Amiga even further with new drag & drop text, spell while you type, dictionary hyphenation, foreign language dictionaries, auto save, polygon graphics and irregular shape generation.

Amiga word publishing power for only **£74.95 inc. p.p.**

Final Writer™ Rel 3 requires an Amiga running Workbench 2 or 3 with a hard disk drive and a minimum of 2Mb. free RAM.

Final Data™ New Release

Final Data™ has been designed to be by far the EASIEST TO USE Database for your Amiga. Many users dislike the involved "two stage" process conventional databases force you to follow. To set up a **Final Data**™ database, you simply define a column for each type of information you want to keep eg. first name, last name, address, town, county, postcode and phone number etc. Incidentally, you can add or remove columns at any time. Your new database will appear as a table with rows and columns allowing you to view lists of data at the same time. Column widths can be adjusted by simply dragging their borders with the mouse. Data is then entered into "cells" and **Final**

Data™ even detects entries of invalid dates etc. and displays an alert message. Screen totals are available as options on all amounts

and calculations (numbers can also be formatted with currency signs and commas). **Final Data**™ is ideal for label printing and has built-in routines that remove all the complexities from this task. You can even utilise the "Print Merge" feature found in **Final Copy II**™ and **Final Writer**™ - simply select the program you are using and **Final Data**™ does the rest. It can also read any database created in **Pro Pal™**, **MultiAmiga File** and **File II**™ as well as ASCII files found in other many other programs.

Ease of use and the power to keep all your records in order from **SoftWood Direct** at only **£39.95 inc. p.p.**

Final Data™ requires an Amiga system with a minimum of 512K free RAM operating under Workbench 1.3 or higher.

ORDER FORM

Mr/Mrs/Miss/Ms Initials: Surname:

Address:

Country (Country if overseas): Postcode:

Daytime telephone: Evening telephone:

Please charge my credit/debit card as detailed below (Please Tick...)

Final Copy II UK & Overseas £49.95

Final Copy II Non UK EC £84.95

Final Writer UK & Overseas £74.95

Final Writer Non UK EC £84.95

Final Data UK & Overseas £39.95

Final Data Non UK EC £49.95

(Card Authorisation Signature:)

Credit/Debit Card No.:

Card Expiry Date:

Issue No. (Switch Cards Only):

Cheque/Bank Draft/Postal Order for £ payable to SoftWood Products Europe... (Please Tick)

ACO

PLEASE RETURN TO: SoftWood Products Europe, New Street, Alton, Derbyshire DE33 7BP

ORDER FORM

☐ Please phone me to discuss PremierVision's Multimedia, and interactive CD authoring services

Please make cheques payable to "Premier Multimedia Ltd"

£95



PUTTING MULTIMEDIA TO WORK

OPTONICA



£29.95

INFO NEXUS **NEW!**

InfoNexus is a sophisticated file management system with integrated multimedia and network support. An ideal replacement for both workbench and CLI users InfoNexus features a full on line help system. As well as having the ability to move, copy, delete, rename files, InfoNexus allows you to view/hear/launch just about any file. InfoNexus is simply the best File/Data manager on the market today!



ALL AMIGAS 1 MEG RAM MIN



£29.95

DATA NEXUS **NEW!**

DataNexus is a very powerful and configurable, yet easy to use, flat file database. Its integral multimedia support for images, samples, text, music, animations, amiga guides, CDXL motion video, program & script launches make it ideal for just about any data storage and retrieval project. Full visual print layout and mail merge make DataNexus a must for your data.



ALL AMIGAS 1 MEG RAM MIN



£350.00

SIMPATICA 2+ VTL

Simpatica allows Amiga and 24 bit image sequences to be rendered to video tape frame by frame producing the same results as products costing over ten times as much, ie, smooth video playback at 25 frames per second. Simpatica has been on sale, and improving, for over four years so you are guaranteed a reliable product. Supplied with both hardware and the bonus program Video TimeLapse, there is no better choice for video professionals.



ALL AMIGAS 2 MEG RAM MIN
80% AMIGA USER INT MAGAZINE



£749.95

INTERPLAY

Interplay is a unique product for the Amiga. It allows you to produce CD32 applications to the very highest commercial standard and was written specifically for the CD32 so no other Amiga authoring system comes close. Interplay was used to produce the three highly acclaimed titles below.



ALL AMIGAS 4 MEG RAM + HARD DISK MIN : 8 - 16 MEG REC
90% AMIGA USER INT MAGAZINE
93% CDTV USER GROUP NEWS



£4.99

PANDORA'S CD

Pandora's CD shows you just what can be achieved with multimedia on CD. An all original promotional title containing something for everyone, from educational productions to point of information, picture, texture, clipart and sound libraries, a jukebox, children's games and a sampler of InsightTechnology. Simply a must for anyone with a Commodore CD system!



CD32 - CDTV - A570
87% AMIGA FORMAT MAGAZINE
88% AMIGA USER INTERNATIONAL MAGAZINE



£39.95

INSIGHT: TECHNOLOGY

INSIGHT: Technology, lavishly produced by Optonica and published by Commodore, gives a fascinating look at modern technology with pictures, animations, photos, video, narration, text, music and sound effects, over 260 topics in all from the ball point pen to the space shuttle.



CD32 - CDTV - A570
87% AMIGA FORMAT
91% CU AMIGA



£39.95

INSIGHT: DINOSAURS

INSIGHT: Dinosaurs is the second in the INSIGHT series, a lavishly produced, highly acclaimed title, rich in multimedia. Produced in association with the Natural History Museum, London, one of the world's leading Dinosaur centres of excellence, you can be assured that Dinosaurs is both technically correct and produced to the most exacting standards. Also features: DinoPaint, DinoQuiz and DinoPuzzle. INSIGHT: Dinosaurs has had the best reviews of any CD32/CDTV reference title so far (lowest mark 88%), see for yourself why.



CD32 - CDTV - A570
92% FORMAT GOLD AWARD
91% CU AMIGA (TOP RATED)
90% CDTV USER GROUP NEWS
90% COMPUTER SHOPPER

SEND CHEQUE/PO TO OPTONICA LTD, 1 THE TERRACE, HIGH STREET, LUTTERWORTH, LEICS. LE17 4BA, UK. OR TELEPHONE 0455-558282 FOR MORE DETAILS. ALL PRICES INC VAT & P&P. PLEASE ADD £2 FOR P&P ON OVERSEAS ORDERS. DEALER ENQUIRIES WELCOME.

GameSmith

The Game Development System

Are you tired of those "BASIC" game development systems? Ready for one that you can really sink your teeth into? Fast Parallax scrolling? No problem. Dual Playfields? A piece of cake! Multiple viewpoints with multiple animated objects on independent paths with multiply defined background and object collision detection??? Child's play!



Creating fast parallax scrolling landscapes is easy with the Gamesmith system

Professional game development is made easy with the new GameSmith Development System. Over 3 years in the making, GDS gives you the low level power to create the masterpiece of your dreams in a single, comprehensive, easy to use development system. Build up your animations graphically in the interactive character animator CITAS and then output in C or Assembler source code.

- ☒ Customise all aspects of the object, including sequence, placement, speed, display method, priority, & object collision detection parameters.
- ☒ Save complex animation sequences out as a single object addressable by the system!
- ☒ Optional custom encryption to protect your work.
- ☒ Fully supports AGA chipset and mode promotion.
- ☒ Hardware level smooth scrolling on a per viewport basis. Fast Parallax scrolling! Independently scroll in dual playfield mode.
- ☒ Custom copper lists.
- ☒ Custom hardware sprites.
- ☒ Over 350 pages of documentation fully describing the system, utility programs, and over 130 library functions.
- ☒ Detailed manual tutorial walks you through the creation of an actual game that exercises all the major components of the system!
- ☒ Extra disks full of commented example source code.
- ☒ Complete animation system with transparent double buffering and prioritised object display.
- ☒ Define custom object-to-object and object-to-background collision detection and response.
- ☒ Automatic placement and animation of multi-sequenced animated objects with a single call.
- ☒ Chain objects. Animating one object animates them all!
- ☒ Automatic virtual space and virtual object handling.
- ☒ Dynamic animation control. Modify on the fly!
- ☒ Complete audio system to make audio playback easy! Automatic load and play of 1FF samples. Interrupt driven background sound replay.
- ☒ Easy-to-use, customisable joystick polling routines.
- ☒ Very fast and efficient ILM picture loader.

The GameSmith Development System fully supports and is compatible with all Amigas including AGA. A C Compiler or 680x0 Assembler is required. From shoot 'em ups to graphic adventures, from intergalactic conquest to strategic simulation, the GameSmith Development System is the perfect solution.

GameSmith now comes complete with Devpac II and a reduced version of Diced C so you can start programming straight out of the box.

Don't let the limitations of yesterday keep you from forging the masterpiece of tomorrow!

Termite

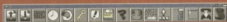
Telecommunications for your Amiga



Ahead of becoming a hedgehog on the Information Super Highway? Don't worry. Termite is so easy to use that even a first time telecommunicator will feel at home. You have all of the power and flexibility to satisfy the most seasoned modern warrior.

Termite is designed to take full advantage of all of the newest features of Workbench 2" and beyond. It is 100% Amiga Style Guide compliant and provides you with all of the modern user interface features to really enjoy playing in the highway!

- ☒ Speeds from 300 to 115,200 tps.
- ☒ Flexible phone book with unique configurations for each number.
- ☒ Supports Amiga standard XPR libraries allowing you to choose from a wide variety of transfer protocols such as Xmodem, Ymodem, Zmodem, Kermit, and more.
- ☒ Supports Amiga standard XEM external terminal emulators in addition to the built in ANSI and VT-102 terminal emulators.
- ☒ Configurable review buffer with out and paste editing between any window.
- ☒ The unique script recording function watches your actions and writes complex scripts for you!
- ☒ Flexibility! Termite is so completely configurable that everyone can make it their own dream terminal program!
- ☒ User configurable floating Button Bar! Assign any program function macro, or ARexx script to any button. Want your own icons? Just assign any PF image to the button!
- ☒ Automatic call logging. Where you were, for how long, and how much you spent, all saved for you!
- ☒ Configurable text macros.
- ☒ Support for multiple line BBSes.
- ☒ Fully ARexx programmable for complete automation. Assign your scripts to the button bar or install them as a menu option.
- ☒ Multi-tasking chat window. Great for those real time conferences.
- ☒ Completely font and screen sensitive. You choose the font and screen mode and Termite automatically adjusts everything!



the Termite Button Bar

Termite comes complete with a comprehensive manual explaining the operation of every program function including a quickstart tutorial, ARexx programming examples, and a telecommunications glossary. We have also set up the button bar with useful instant access to CIX and other popular BBSes.

Termite (RMP £39.95 inc) and Gamesmith (RMP £99.95 inc) should be available now from all good Amiga stores. In case of difficulty you can order directly from HiSoft...

HiSoft
High Quality Software

The Old School, Greenfield,
Bedford MK45 5DE UK
Tel: +44 (0) 1525 718181
Fax: +44 (0) 1525 713716



Comms programs, give or take a few here and there, are all so-so on the Amiga. For a long time all my comms was done using NComm, because it was simple and solid and basically everything else was a bit tricky.

NComm is a great program but it does take a little time to set up, although once this is achieved it flies along. Most of the PD comms programs are okay, but they lack a certain stability and because they were written when it was the in thing to have a colour computer, they all have too much colour in them and are too slow. There are a few commercial offerings, but they are all getting on a bit in years, and most of the ones I've tried are either too big and unwieldy or lack documentation, or indeed both.

Aiming to get around this is Termite (a tricky name but we won't hold that against it), which is written by Oregon Research and marketed in the UK by Amiga old-hand Hisoft (which is of course usually known for its programming tools like C and Basic compilers).

Termite is billed as "so easy to use that even a first time telecommunicator will feel at home", and "designed to take full advantage of all the newest features of Workbench 2 and beyond." Does it slice bread and make tea, too? With claims like that we'd better

All the might of...



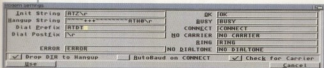
...Termite. Phil South looks at a terminal program to destroy all others



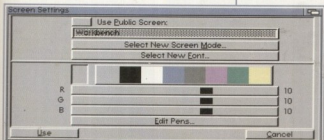
The start-up screen showing the user-configurable buttons



The set-up settings for the serial port...



...and for the modem



You can set up colours, fonts and screen modes for the terminal screen



These are the empty directories to use for uploading and downloading

ble one. (Hey, is Prestel still going? Ugh.)

The program is, as far as I can see, virtually plug-in-and-go, as I had it up and running within a few minutes, which for a comms program is surprising to say the least.

The screen shots on the box show the screen to be a huge muddled mess, although in reality this is probably an attempt to make the thing look busy and powerful to the casual purchaser. In fact in real life, the screen is clean and uncluttered – clutter can be brought in if you desire it. The keynote of this program is configurability, and you can transform in a number of interesting ways to suit your taste, which we'll go into a bit more in a moment.

Most terminal programs have a scrollbar which is a method of looking back at what has previously scrolled up the screen. In Termite this is called the review buffer, presumably because you can review the contents of the buffer as you go along. When text appears on the screen it is also fed into the review buffer, and when the review buffer is

active the title bar will tell you the line number of the top line plus the amount of lines in the buffer, like so:

Review Buffer (30/234)

with the first number being the current top line and the second being the total lines in the buffer.

You can use the cursor keys to go up and down the buffer line by line, or you can press shift and a cursor key to whiz along a page at a time. You can also use the scroll bar at the side of the window to scroll along – the program is System 2.x compliant after all!

However, the best part about the buffer is it can be cut and pasted, both within the program and to other programs – provided the machine isn't switched off between cut and paste. You can also do a text search of the buffer, which is handy if you save a piece of text go by but you can't seem to find it by scrolling back and forth through the last 2000 lines of text.

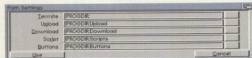
Obviously, you can set the length of the review buffer, and the proper size will become apparent after a few uses. This is not a replacement for a capture buffer but more of an emergency measure, in case you didn't anticipate seeing anything on screen that you wanted to save.

One of the most useful features of the program is the ability to record scripts. Scripts are a good thing but some poor sod has to write them, which in most cases is you. Most of us are a bit shy of scripts, and we eschew them in favour of doing everything manually because it's less bother than learning the arcane script language the program uses.

This has been solved in Termite by fitting a script recorder to the program, so when you activate the script record menu item, you can



This window gives you on-line help for all your queries and problems

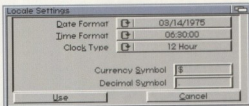


The path settings screen allows you to set up paths so that files show where to go

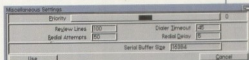
The Internet

There is a lot of talk about the Internet, and it is a natural assumption that this program will link you up to the Internet and off you go. Well no. You need to get an account with a service provider, and this means that you will be able to link to their computer and access the Internet.

Both CIX and Delphi will allow you Internet access in a text-based form. Of course, a full Internet connection will mean you have to use TCP/IP, which unfortunately isn't one of the terminal emulations supplied. You can of course get free TCP/IP software when you join an Internet service provider, like Demon, which has Amiga based TCP/IP software.



You also have the ability to alter the currency symbol and data for the locale



The miscellaneous settings allows you to set the dialer info and the number of lines in the review buffer

record your logon script simply by doing it manually. Then you set this as your start-up script so that every time you log on the program will repeat what you did the first time.

This is an invaluable time-saving measure, as it enables you to create script files for every new service you encounter, rather than just those that follow a strict USERNAME/PASSWORD format. Other options for the more technically minded are the usual macros, plus the program is APEX programmable and you can even assign your own custom scripts to the button bar.

Speaking of which, another customising job you can do on the program is to adapt the user configurable floating button bar. This is a bar along the bottom of the screen which contains buttons to press for frequently-used functions.

ASSIGNING

Not only can you choose the functions these buttons perform, but with user configurable graphics you can also change how they look. You simply assign a graphic to a button and then every time you boot the program that graphic will be on that button. When I said this program was configurable, I wasn't kidding.

Like most terminal programs on the Amiga, you also have call logging, a multitasking chat window, and of course all the screens are font sensitive. All your system fonts can be used in the program, like the rather thin and spiky font I used before I did the screen shots. I think something more standard would be better, like Topaz for example, as it is the most readable font at a small size.

The most useful feature I found was the comprehensive manual. It's a tidy little spiral-bound booklet which clearly and simply states all the facts you might need to know about the program. Its index actually points you to every feature you might be looking for, and the page numbers are all correct.

Sounds elementary, but anyone who's read the Lightwave manual will tell you that it's not guaranteed by any means. The illustrations are few, but when they do appear they are readable – yes I know they are pictures, but there's a lot of text on the screens! – and appropriate.

This is one of the best manuals I've seen

Worthy of the name?

Termite is a great program and although it did have one or two interesting bugs in it when I tested it, I have reason to believe that my set-up was at fault rather than the program. One fault locked the program and everything I clicked on vanished until I was left with an empty button bar and an empty screen – it may have been a catastrophic screen grabber failure as I was grabbing screens from the program at the time.

Either way, the program looks to be pretty stable, and the interface is as cool and configurable a front-end as you could wish for. I don't really like system interface guideline-compliant stuff as it is used to look smart – now it just looks old fashioned. I prefer interfaces like Lightwave which use the system but do something more interesting with it.

The claim that a beginner could get the program up and running is true. You would need to read the manual of course, but in this case it is so well laid out and readable that it guides you through installation and use whether you know anything about Amigas or not.

The manual is ring bound too, so it even stays at the page you opened it to, unlike some hardware manuals which make you try and follow steps involving both hands which means the book snaps back together making it hard to read the page.

All things considered, I think Termite is a powerful and useful program and although you can get something similar in the PD, you might not want to undergo the steep learning curve which most PD programs offer free as part of the package. If instead you want to be up and Internetting in about 30 minutes after opening the box, then this is the program for you.

For a long time, with the DeluxePaint 4 and Wordworth manuals sticking out in my mind as previous holders of the title. A good manual is all important (see Lightwave again) as it can be the making or breaking of a program.

A good program with a bad manual might as well be a bad program and a half-good program with a good manual seems like a great program. Unless people know exactly how to use a piece of software they might as well not bother. The Lightwave manual and all versions of the Imagine manual, with the possible exception of the last one, are examples.

The program requires 1Mb RAM and Kickstart 2.04 or greater, which means either an ECS machine or an upgraded 1.3 machine as a minimum, and a 1200/4000 as a maximum.

MODEMS

Top quality feature packed fax-modems at amazing prices! All modems include a cable to connect the modem to the Amiga. NCOM3 software, beginners guide to Comms disc and an 80 page manual. All modems include MNP 2-4 error correction, MNP 5 data compression and are FAX Class 1 & 2 Group 3 compatible. Please telephone for a full specification sheet.

Speedcom-B 14400 modem £124.99
Speedcom-Et 15200 modem £164.99
Speedcom-Bf 28800 modem £214.99
GP FAX software £39.99



SUPER LOW PRICES

FREE VIDEO & STAKKER with every drive

HARD DRIVES

Our high speed 2.5" hard drives for the Amiga A600 & A1200 computers come complete with fitting cable, screws, partitioning software and full instructions and 12 months guarantee. They come already partitioned with Workbench installed for immediate use. We offer free fitting for personal callers.

20mb	(£89.99)	170mb	£214.99
40mb	£154.99	250mb	£264.99
60mb	£129.99	340mb	£299.99
85mb	£134.99	540mb	£449.99
120mb	£159.99		



4mb only £169.99

MEMORY EXPANSION

A1200 4mb Memory accelerator with battery backed clock. Simple trap door fitting. Almost doubles the speed of the A1200. Zero wait state 32 bit wide FastRAM. **£169.99**. Expandable Memory accelerator with clock and FPU socket. This memory accelerator can be expanded from 2mb to 8mb and also have a Floating Point Unit fitted.

2mb	£129.99	20mhz FPU	£39.99
4mb	£189.99	40mhz FPU	£79.99
8mb	£329.99	50mhz FPU	£119.99



ALSO AVAILABLE

- A1200 CD ROM Drive **£194.99**
- Viper 68030 Turbo Accelerator **£169.99**
- A1200 3.5 hard drive fitting kit **£17.50**
- A1200 Computer (Race & Chase pack) **£289.99**

MONITORS

Excellent quality monitors for a superior picture quality with reduced eye strain.

Sharp 14" TV Monitor **£174.99**
 Philips 8833 mk II monitor **£249.99**
 Microvite 1438 monitor **£289.99**



SOUNDBLASTER

The SOUNDBLASTER is a superb stereo amplifier that comes complete with 50 WATT high quality 3 way speakers, power supply and free stereo headphones. The SOUNDBLASTER adds a new dimension to games playing with its stunning stereo sound.



NEW LOW PRICE £34.99 (plus £5.00 for postage and packing)

50 watt speakers

X-BACKUP PRO

The most powerful disc back up system for the Amiga. Includes the unique Autoswitch Cyclone Cartridge (requires an external discdrive) that will enable you to back up virtually any floppy disc onto another floppy disc. Will also back up hard drives and includes a full file management system and dozens of excellent disc tools.

FULL MONEY BACK GUARANTEE - If at the time of purchase you can find a more powerful disc back up utility, we will refund your money!



£39.99 (plus £1.00 for postage and packing)

FREE

HOW TO FIT YOUR HARD DRIVE video and Stakker disc to increase the drives capacity with every drive. Amiga A1200 only **£275** if purchased with a hard drive. Price includes fitting. A500/A1500 hard drives also available. Interface is only **£99.99**.



CLOCK CARTRIDGE

The clock cartridge will enable your Amiga to continually store the correct time and date in its own battery backed memory. Simply plugs onto the back of the Amiga and does NOT invalidate the warranty.



NEW! ONLY £19.99

DELUXE FLOPPY DISC DRIVE

Top quality, silent, Cyclone Compatible 3.5 drive. Includes long reach cable, profit switch and Fpu connector. **£54.99** Internal replacement drives. A500/A500+ **£44.99** A600/A1200 **£44.99**. 3.5" then Superbase bulk packed or branded discs 3.5" D500 discs.

QTY	Bulk	Branded
10	£4.25	£5.25
25	£10.99	£11.99
50	£18.99	£21.99
100	£36.99	£41.99
200	£68.99	£78.99
500	£167.99	£189.99



PRINTERS

These superb CITIZEN printers have a two year guarantee and come complete with a printer cable, paper and printer drive (if available).

A4C printer	£139.99
ABC colour	£154.99
Thermal feed unit for ABC printer	£27.99
Swift 200 colour	£180.99
Swift 240 colour	£217.99
Projet 11	£213.99



siren

No.1 for mail order

SALES HOT-LINE

FREEPHONE

0500 340548

ENQUIRIES: 061 796 5279

FAX: 061 796 3208

Excite your Amiga

No.1 for Amiga in Manchester

Order NOW for immediate despatch

FREEPHONE

0500 340548

(for credit card sales only)

061 796 5279 for enquiries

or fax 061 796 3208

Open 9am to 6pm
Monday to Friday.
Saturday mornings
10am to 12pm.

Access, Visa & Switch accepted.

Send cheques (made payable to Siren Software),

Postal Orders or credit card details to:

Siren Software,
178 Bury New Road,
Whitefield, Manchester,
M45 6AF England

Personal callers welcome.

Please phone first to check availability of any item.

Directions

From M62 junction 17, head towards Bury. We are 50 yards on the right after the third set of traffic lights.

All prices include VAT, postage and packing will be charged at £3.50 per order (U.K.); £7.50 Europe and £12.50 rest of the World.

Visage



Computers

(Dept AC)
18 Station Road
Ilkeston
Derbyshire
DE7 5LD

We will match any
genuine price you
see in this
magazine on all
products listed on
this page.

To Order
Telephone:
(0115)
944 4501

AMIGA PUBLIC DOMAIN TOP 10

- 1 REBELS-SWITCHBACK (2) 030AA
- 2 SOME JUSTICE '94 - AA
- 3 LSO LEGAL TOOLS #157
- 4 ASSASSIN #159
- 5 RELOKICK 1.41
- 6 ROCKEITZ - THRUST GAME - AA
- 7 FAIRLIGHT - LOVE (2) - AA
- 8 T.E.C. 007 - AA
- 9 MORPHY MAGIC MAN 1.5MB
- 10 TEE TO GREEN

We also stock: All the latest Cymo's, URS, Fish 1-1000, Assassins 1-220, F1 Licenseware 1-44, and are now the sole distributors for LSO Legal Tools from #152 onwards. The LSO Legal Tools cost £1.25 per disk.

DISK PRICES & POSTAL COSTS

DISKS	PRICE PER DISK	P&P
1-10	£1.00	£1.00
11-25	£0.95	£1.25
26+	£0.90	£1.50

AMIGA HARDWARE

HARD DRIVES

WESTERN DIGITAL

3.5" IDE (CAVARI)

210MB	.....13ms	.....£179.99
270MB	.....13ms	.....£189.99
340MB	.....12ms	.....£199.99
420MB	.....12ms	.....£209.99
540MB	.....12ms	.....£229.99
730MB	.....10ms	.....£279.99
1-GIG	.....10ms	.....£399.99

CONNOR

3.5" IDE

210MB	.....12ms	.....£169.99
420MB	.....12ms	.....£189.99
540MB	.....12ms	.....£199.99

QUANTUM

3.5" IDE

270MB	.....13ms	.....£149.99
420MB	.....13ms	.....£189.99
540MB	.....13ms	.....£199.99
730MB	.....10ms	.....£279.99
1-GIG	.....10ms	.....£499.99

3.5" SCSI 2

270MB	.....12ms	.....£199.99
540MB	.....12ms	.....£249.99
1-GIG	.....10ms	.....£549.99
2.1-GIG	.....10ms	.....£999.99

IBM

2.5" IDE

80MB	.....16ms	.....£149.99
130MB	.....16ms	.....£169.99
170MB	.....16ms	.....£199.99

3.5" IDE

365MB12ms£159.99
-------	-----------	--------------

3.5" HARD DRIVES WILL FIT INTO THE A1200/A4000 CABLE REQUIRED FOR A1200. WHEN YOU PURCHASE YOUR DRIVE FROM US WE CAN FIT IT FOR A CHARGE OF £19.99 (INCLUDING COLLECTION & DELIVERY). ALL DRIVES COME SUPPLIED WITH A 1 TO 3 YEAR WARRANTY. PLEASE CONFIRM CURRENT PRICES & AVAILABILITY BEFORE ORDERING.

A1200 OVERDRIVES

210MB	.....£239.99
420MB	.....£269.99
540MB	.....£299.99
730MB	.....£379.99
1-GIG	.....£549.99

CD32 - CRITICAL ZONE

- 32 BIT CD CONSOLE
- 7 GAMES I.C. - CANNON FODDER, LIBERATION.
- £239.99

WHEN YOU BUY A HARD DRIVE FROM US WE WILL - PREP, FORMAT AND INSTALL IT WITH UP TO 50MB OF FREE PD

PRINTERS

EPSON STYLUS COLOUR

- COLOUR INKJET
- UP TO 720 X 720 DPI
- £449.99

CANON BJ-10SX

- 360 X 360 DPI
- £179.99

BLANK DISKS

PRECISION BRANDED

	DS/DD	DS/HD
10	£4.99	£6.99
50	£17.99	£29.99
100	£33.99	£57.99
250	£82.49	£139.99
500	£159.99	£269.99
1000	£309.99	£499.99

THE DELIVERY CHARGES FOR 500+ DISKS ARE AS FOLLOWS:
STANDARD - £5.95 NEXT DAY - £7.95

ACCELERATOR CARDS

GVP 1230 MKII

030 40MHZ OMB	.....£229.00
030 40MHZ 4MB	.....£299.00
030 50MHZ* OMB	.....£299.00
030 50MHZ* 4MB	.....£449.99
1230 SCSI 2	.....£59.00
*CONTAINS "MMU"	

ACCESSORIES

3.5" - 2.5" HD LEADS	.....£19.99
BJ-10 REFILLS	.....£12.99
MOUSE 400DPI	.....£14.99
PARNET LEAD	.....£10.99
MOUSE MATS	.....£1.99
AMIGA DUST COVER	.....£4.99
PRINTER CABLE	.....£7.99
50 CAPACITY	.....£3.50
100 CAPACITY	.....£5.99
200 CAP STACK	.....£12.99

MODEMS

- ALTO 14,400 EXT FAX MODEM
- £139.99

28,800 V.FAST!!! (V34)

- ALTO 28,800 EXT FAX MODEM
- £199.99

MEMORY SIMMS

- 4MB 72 PIN£139.99 || • 8MB 72 PIN |£299.99 |
| • 16MB 72 PIN |£549.99 |

DISK DRIVES

- AMITEK EXT£59.99 || • A500 INTERNAL |£44.99 |
| • A600/A1200 INT |£49.99 |

SHARP TV/MONITOR

- 14" REMOTE CONTROL SCART TELEVISION
- FREE SCART CABLE
- £169.99

RAM MODULES

- A500 0.5MB£19.99 || • A500 0.5MB RTC |£24.99 |
| • A500+ 1MB |£32.99 |
| • A600 1MB |£32.99 |
| • A600 1MB RTC |£42.99 |
| • A1200 4MB RTC |£189.99 |

PRO-GRAB 24RT

- 24BIT REAL-TIME COLOUR DIGITIZER
- AGA RECOMMENDED
- 2.04 & 1.5 MEG REQ.
- ONLY £129.99

486 PC'S

CALL NOW FOR FREE INFO PACK

- 486DX2 66 VESA LB
- 4MB RAM, 420HD
- SVGA .28 NI MONITOR
- DOS 6.2 & WFV3 11
- 1 YEAR ON-SITE
- ONLY £989.99

DELIVERY CHARGES

STANDARD	£3.95
NEXT DAY	£5.95
SMALL ITEMS	£1.95
ALL PRICES INCLUDE V.A.T.	
PRICES CORRECT AT TIME OF GOING TO PRESS. PLEASE CALL FOR LATEST PRICES.	

HOW TO ORDER

BY POST - PLEASE MAKE CHEQUES & POSTAL ORDERS PAYABLE TO VISAGE COMPUTERS. PLEASE ALLOW 5 WORKING DAYS FOR CHEQUES TO CLEAR. BY PHONE - ORDERS TAKEN FROM 9.30AM TO 5.30PM.

CALL (0115) 944 4501 TO PLACE YOUR ORDER



Wallace, Gromit and the Amiga

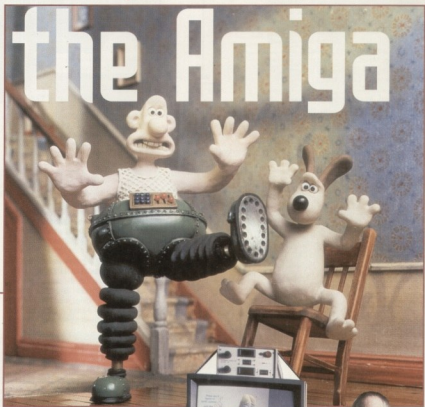
Adam Phillips travelled to Aardman Animations, one of the world's premier animation companies, to find out why the Amiga is at the heart of their art

From the high-browed Oscar ceremonies where Nick Park enthusiastically and oh-so-Britishly accepted his award for 'The Wrong Trousers' to the ground-breaking, award-winning Peter Gabriel pop video 'Sledgehammer', Aardman Animations have carved a reputation for producing both critically and publicly acclaimed commercials and animations.

If you're sitting, lying or standing reading this, you may well be one of the decreasing few who have never heard of Aardman Animations. If so, it's guaranteed that you've



The award winning Aardman-made pop video for Peter Gabriel set new standards and refreshed the music video-making market - especially with dancing rubber chickens



seen a piece of their work - whether it be the roller coaster ride of the Crunchie commercial, the Chewits monster on the rampage through New York, Frank the Tortoise in the Total Heating advert, or the little fellow with the noisy trombone in the Lurpak ads.

With two Academy Oscars firmly gripped in both hands, the company, along with a variety of other projects, has now embarked on the third film in the Wallace and Gromit series, 'A Close Shave', under the imaginative vision of Nick Park and his animating team.

Requiring high-precision skills and speed to complete the film, in the last six months the Amiga has found itself a secure home at the Bristol-based studios. While not actually creating the images - that's up to the model makers and a serious amount of plasticine - the seven A4000s are being used during



Glenn Hall, technical director for Aardman Animations, with the Amiga system that helps produce the animated films

Amiga Computing
FEBRUARY 1991

shooting to aid the animators in seeing the fruits of their labour come to life with the mere click of a button.

One of the main problems for animators using stop motion is the accuracy of objects, lighting and sets from frame to frame. The old method of checking how well a scene was cutting together was to use an industry video recorder. This led to a series of problems as the tape was not always frame accurate – a blank frame would appear here and there, frames overlapped others, and it was difficult to re-edit a scene quickly. In the worst case scenario, the tape itself could be chewed.

Glenn Hall, technical director for Aardman and the man behind the computer set-up, commented: "Animation is amazingly technically complex. The reasons why we use computers is because we couldn't do it any other way. The other reason is that they, in conjunction with PLCs (Programmable Logic Controllers), are fundamentally mistake-proof because it's a sequential task. Do this, do that, do this a bit, go back and do it again with different lighting and you often get a sequence that you want to repeat a number of times. What the animators like to have is a row of buttons to press."

ACCESS

Enter the Amiga, coupled with Digital Processing System's acclaimed Personal Animation Recorder. Glenn Hall and his technical department have produced a series of 'tower' units designed by Allan Yates, each having two monitors – one that displays the animation, the other the PAR controller screen – an A4000 and a Panasonic Digital Frame store. Hall's team has managed to merge all the miles of wiring into a single interface to help the unit be as accessible as possible to untechnical users.

Hall said: "We realised that there's a lot of equipment in this set-up and we're constantly moving it around, so we've taken a considerable amount of time to make it portable."

The process being used for *A Close Shave*, the third instalment of



Morph – Aardman Animation's first television character produced in 1976 for the *Tony Hart* art programme on BBC1. Glenn Hall: "Animators love to do him because Morph's the perfect animation character – very simple and very expressive."

"It's changed the way we work because it's so quick and so accurate – it's just a pity we can't get hold of the kit at the moment"

Tristan Oliver, one of the lighting cameramen for *The Wrong Trousers* and *A Close Shave* on the subject of the Amiga

Who can forget the rampaging creature whose appetite is only quelled by a pack of Chewits?



Wallace and Gromit, is very simple. The animator sets up a frame to be filmed. He then grabs it with a Digital AV mixer that allows the animator to compare the current and previous frame to check for any immediate inconsistencies in character action or lighting.

Once happy, the image is grabbed onto the PAR and the whole scene can be played back to see if the sequence meets the director's approval. If given the thumbs up, the lighting cameraman shoots the frame onto 35mm film and the process begins all over again. If something doesn't work, the animator can simply delete the frame and have another attempt.

One of the lighting cameramen for *The Wrong Trousers* and *A Close Shave*, Tristan Oliver, is very taken with the system. "It's very good... the animator can have an immediate idea of what he is doing... another very valuable feature of the Amiga is the loop facility so you can loop the shot over and over again

without having to find the beginning or the end. Then you can pick up the cursor and run it backwards and forwards at any speed you like." Oliver added: "It's changed the way we work because it's so quick and so accurate – it's just a pity we can't get hold of the kit at the moment."

This enthusiasm is echoed by the various members of the crew throughout the production. Steve Box, one of the key animators on Nick Park's latest feature, remembers the previous tape-based process and "wouldn't want to go back to that old system."

The Amiga's involvement with Aardman Animation doesn't end there. For those who enjoy their commercials, you can't have failed to notice the Crunchie advert with that stick-in-brain tune. Featuring stop-motion animation and constant camera movement as the characters jet off into space and take a ride on a roller coaster that makes *The Big One* in Blackpool look like a kindergarten play thing,

Well 'Hardman

The process that Aardman Animations specialises in – stop motion – is one of the most time-consuming and difficult methods of creating a moving image. Like any production, the film starts life as a script. If it's a commercial then it's provided by the creative agency working for a particular product's manufacturer.

The next stage is the storyboarding where the words are turned in to a shot by shot breakdown. Animation requires even more painstaking planning than film – every camera move must be thought through, every facial, hand, foot and object must be individually catered for on paper to minimise any possibilities of mistakes cropping up at a later stage.

The storyboard is then shot directly onto video into what is called an animitronic, which gives an even clearer view and idea of the structure and flow of the shots.

Then comes the model design and making. It's not uncommon for a model maker to spend several days at work on a particular character, moulding and shaping the plasticine round a metal frame, then have a client turn round and say, "No, I don't want that anymore."

Once all hurdles have been cleared, it's onto the

shooting itself. Like cel animation, as seen in Disney films, the animator must shoot each frame individually within a scene. Just take one second and you're looking at 24 frames. Within those frames the characters, objects and sets that alter or change will require to be moved frame by frame. A 30-minute feature starring Wallace and Gromit has up to 43,200 frames.

Aardman's strategy at the moment is to make the lengthy shooting process as speedy and efficient as possible. On the wall of the production office, a colour-coded schedule has been created for each day that dominates the room with its comprehensive breakdown of shooting times and dates.

On *A Close Shave*, the number of animators working on a production of this scale has risen from two to four, each working with the PAR card and Amiga.

With the ever-increasing shooting speed, the company hopes to be producing a full-length feature in the next five years as stop motion animation becomes more and more popular. Tim Burton's *A Nightmare Before Christmas*, which incidentally was worked on by Loyd Price, an animator at Aardman, has whetted the cinema-goers' appetites for more and, with the Wallace and Gromit cult following, the potential for a box office hit seems assured. The final frame count for *A Nightmare Before Christmas* illustrates the time needed for such an undertaking – 108,000 frames. Count 'em and weep.

the actual process to produce such a complex visual feat was helped by the Amiga.

The commercial features seven levels of matting that make up the background, midground and foreground, and a whole lot more besides. One Amiga was used for feeding in the previously-shot background. This gave the animator a reference point to help him lay another level of matting on top, for example, in the mid-ground. The animator, in this instance Tom Gasek, was able to see an image that would look something like the end product.

Once happy that the two particular layers were lined up correctly, Gasek would tell the operator, Pete Wignall, to record the frame on the next Amiga. The process then begins all over again. Once a scene had been completed, the two separate layers would be loaded into a Macintosh and, by using its software, matted together to create a single image. That image would then sometimes have other layers added to it using the process described

above. Simple eh? Hall says that it gets "pretty complicated" at times, but that's an understatement from where I'm sitting.

With the Amiga providing such invaluable facilities, can there possibly be a problem? Well, unfortunately yes. Like many television and film production companies, Aardman have found it nigh on impossible to get hold of new

A4000s. While I was there, it was apparent that the Amiga systems were very much in demand, with the portable units being wheeled back and forth at a remarkable rate between different sets.

Besides that, though, Aardman Animation is pleased with its current computing set-up. Indeed, with Glenn Hall's enthusiasm for computers, there have been talks about moving further into multimedia CD-ROM. Hall commented: "There's been a lot of interest in other media. It's becoming more obvious that other forms of publishing are creating new ways of doing things."

Perhaps we'll be seeing Wallace and Gromit presenting on the Amiga soon...



Wallace and Gromit make their first appearance in *A Grand Day Out*.

An interview with Mr Park

This just isn't on. Here's a man who has a renowned talent for animation, has won more Oscars than most major actors, has had offers of work from many a major studio in Hollywood and yet somehow, through all this ego-boasting acclaim, Nick Park is not an arrogant, fussy or tyrannical sort suffering from distillations of grandeur – he's a person who would fit in at the local pub as the quiet, nice bloke sipping on a pint of Boddingtons and amusing people for hours with his strange stories of a moon made of cheese,

an exasperated dog and a villainous penguin abusing the wrong trousers.

Amiga Computing caught up with this most British of gentlemen as he finished another shooting day on the latest instalment of Wallace and Gromit, to ask him a few questions on the past, present and future.

Where did your interest in animation come from?

It goes way back really to being 13-years

Nick Park and Gromit - inseparable: "I basically choose the things that appeal to me the most and I think that you know what those are after many years"



Model-making is a painstaking process that requires an eye for high-quality detail

'Hard as nails

Well, not strictly true. Indeed, the questions listed below shouldn't cause any real problem for a true fan of the series. There are three Wallace & Gromit T-shirts up for grabs, so scribble out the four answers to the questions posed and the first out of my wrong trousers (the brown corduroy ones) can walk down the local high street clad in an Aardman T-shirt.

- Which animated film made by Nick Park was nominated for an Oscar but did not win?
- Which animated short won instead?
- Why did Wallace and Gromit fly to the moon in a 'Grand Day Out'?
- Did the penguin in 'The Wrong Trousers' ever speak?

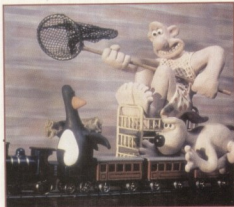
Send your entries, written, typed or bled to: Adam Phillips, Well 'Aard Comp, Amiga Computing, Media House, Adlington Park, Macclesfield, SK10 4NP.

old. I was always interested in art and drawing cartoons and, at the age of 13, I started playing with my parent's cine camera. It was a standard 8mm and it had a button on it to do animation. In other words, it could take one frame at a time instead of running continuously.

Being interested in cartoons, my dad, a photographer, had heard of the principle of how animation was done. So, not having read anything or seen how it was done at all, I just had a go. I animated anything – plasticine, household objects, cups, whatever.

Where do the characters like Wallace, Gromit and the penguin spring from?

Most of the characters started back at art school really when I was doing sketches in sketch books. I used to try and think of ideas for children's books, stories and films at college. Later on I went to the National Film and Television School at Beaconsfield and needed a couple of



The *Wrong Trousers*, the sequel to *A Grand Day Out*, has received international acclaim. Their characters were drawn up many years ago in Nick Park's art school sketch book.



Creature Comforts detailed the individual stories of animals incarcerated in a zoo, and won an Oscar in the process.



The award winning *Total Heating* advertisement campaign featured Frank the Turtle, among other creatures, talking about the rather beneficial heating systems in true Park-style.

characters for my graduation film.

I went back to my sketch books and took those characters from there really. They evolve over an enormous amount of time, and ideas suddenly hit you. It's funny how a lot of the things in the films actually do come from these old sketch books, even now. It's as if they're in the back of your subconscious.

I basically choose the things that appeal to me the most and I think you know what those are after many years. Drawings seem to come to the surface – penguins have been a dominating thing that I've always liked to draw.

Can you ever see yourself working in live action films?

If the right kind of opportunity came along, who knows? But no, I think I'll stick with animation for the time being. I feel that there is so much to do in this area and feel most at home working on this scale.

While you use computers to aid in production, do you see computers as a good or bad thing for actual animation?

I see them as a good thing. We don't want to be left behind or be a stick in the mud. We use it in a way to aid us, to do this more conventional form of animation, but to me it just opens up the areas available to people. I'm sure computer animation is going to be very much the future.

Do you see yourself using computer animation at some point?

I don't know. The only thing I would say about using traditional techniques is it's tactile, hands-on, and you can control things so immediately and directly.

I'm sure computers are going more in that direction but I don't know whether one will always be looking at a screen. I've talked to computer animators who seem to envy that we can touch what we're looking at.

At some point in the future, I'm sure the computer will be able to do all the things that are good about our handmade techniques. So much depends on the human feel and the computers need to be more responsive in that way.

How do you feel about the computer animation you have seen?

I don't want to put computers down, but there is an over-use of camera movement in some of the computer animation I've seen. It's so hard to do a camera move using our methods. We're using computers to help us, but it still takes a while to work them out and get them right. It tends to make us disciplined in our use of camera moves – we don't do too many.

Because you can make the camera fly all the time with a computer, there is often a lack of that discipline, so the shots



Steve Box, (right), Park's co-animator and key player in *'A Close Shave'*, adjusts Gromit for a shot in the latest film.

become meaningless because camera moves are not being used for any reason – "Because we can do it, we'll do it". I'm sure this attitude will wear off and people will start using them in a more discriminating way.

What are you working on at the moment?

We're working on another Wallace & Gromit film – it's called *'A Close Shave'*. It's an action thriller like the last film, but this time there is also romance in the air for Wallace.

There's a woman in this one called Wendolene but I can't really say much more, we don't want to give the gags away.

Have studios tried to poach you from Bristol to go to Hollywood?

Yes, there have been offers from Holly-



wood. Most of the major studios have taken an interest in my work. It is common knowledge that we have been talking particularly to Disney for a long time, but we haven't yet set anything up.

They seem to be keen on us staying here which we're more than happy to do really. We can't imagine shifting over there and I think they seem to like the British sensibility that we have. They have been very wise in seeing that if it's done here, that's what you get. Also, I think it's the humour they're interested in as well.

Where do you keep that flock of Oscars?

They're upstairs in the canteen. They come out once in a while to show to people.

Expect 'A Close Shave' on your television screens for Christmas '95.



Amiga makes it easy

Detailed here is the shooting process for a single frame of animation incorporating the Amiga and Wallace & Gromit.

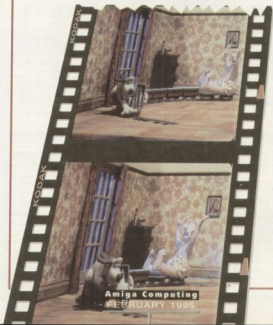
The Panasonic AVES Digital AV Mixer is used by the animator...

... to compare the previous and current frames to see if they match in either lighting, set or character movement and consistency

If successful, the frame is captured onto the PAR card and then saved onto a Micropolis 2217A hard drive

The animator can now view the entire sequence via the PAR card, play it at any speed or delete certain frames without running the risk of damaging the footage, unlike a tape-based system.

Then it's time to move onto the next frame and repeat the procedure all over again



FEATURE

Wish list

In most paint programs a lack of support for animation or batch processing in the IP department would be a suicidal omission. Although this is exactly the case with Photogenics, an actual complaint would be nothing short of insulting considering the asking price and overall performance.

Both of the above would be very nice additions, and only time will tell if the planned pro version – which should arrive around March – will deliver this finishing touch.

Aside from that, the only element I'd particularly like to see would be full support for a range of RTG boards, thereby enabling paint and preview in full 24-bit rather than the fast Ham8 or 256 colours presently on offer. As for disappointments, the only real let-down in the existing software is the poor text handling. At present the program only offers support for bitmapped fonts which invariably look awful and quite simply let the software down.

Hopefully the planned free updates to registered users will soon solve the problem.

processing power and compositing skills to entire images. However, full screen is by no means the only option.

Thanks to a seemingly all too familiar array of painting tools, image processing can now be drawn directly onto the image just as easily as paint. As far as I am aware, this is a missing feature which, regardless of the program's additional talents, sets it apart from the opposition.

The ability to airbrush an area selected with the IP effect of your choice quite simply makes Photogenics a must-have product for anyone involved in quality Amiga art.

As for the tools on offer, there's nothing unusual, with the exception of the nice touches such as tolerance fill and a particularly impressive smear option.

However, when these seemingly basic painting options are combined with the IP effects and composition options offered by the alpha channel, you quite literally reach a new level in creativity.

Having labelled the painting tools as



Redo revolution

At this point it may well be worth paying close attention, simply because you may not believe what you're about to read. Whenever you make any changes, whether they be IP effects added by a tool or over the entire image, a paint stroke or even a composition with a secondary, you're provided with an unlimited undo.

Basically you can apply as many brush strokes or image compositions techniques as you wish. Only when you actually fix the image will the changes become permanent.

Obviously a nice feature, but what makes the program's



Compositing images, either with or without an alpha channel, has never been easier

being rather run of the mill, it's perhaps worth clarifying that even what appear to be standard paint program features still offer pro quality results.

For example, the airbrush is a true airbrush effect, and not simply a collection of sprayed-on dots. Secondly, the program also offers an impressive array of brush styles such as airbrush, chalk, crayon, marker pen, pencil, felt tip, water colour plus others. In total there are a massive 13 assorted brush styles on offer.

In addition, each brush style has its own pressure, size and transparency settings for fine tuning the application of paint or IP effects.

Palette control has also been very well implemented with a full 24-bit palette on offer, even though the actual preview is limited to either fast Ham8 or 256 colours. Palettes can be loaded, saved and created as the need arises.

ALTERING

Better still, the palette requester also offers a use and fix feature which allows you to repeatedly alter the colour used during the last painting operation. The author has even added on/off channel selection for the RGB signals in the selected colour – Photoshop power at a bargain bucket price tag.

Due to the pure number of IP options on offer, I'll rely on the screen shots to provide a complete list. Needless to say, though, the list is pretty extensive.

My only real complaint is a lack of a visual crop option. Simply cutting a brush does have much the same effect, but nevertheless doesn't offer the accuracy many pro users will be looking for. As for control of the IP

undo and redo so special is its ability to freely interchange paint colours, IP effects or even brush styles. As a result it's not only possible to revert back to your original image, you can even swap the style of the changes.

For example, you could airbrush a negative effect on to a particular part of the image, but if that didn't work you could simply select another IP effect such as solarise and the existing negative brush strokes would instantly become solarised.

In short, this is the most creative and flexible approach to art and image processing I've ever come across on the Amiga. As you'll discover in the wish list section, Photogenics is by no means perfect, but even as it stands the program is simply invaluable for anyone running an A1200/4000 or a Workbench friendly RTG board.



A massive collection of IP modes, excellent palette control plus an impressive array of painting tools with adjustable presets

options, there are no complaints. All the effects that might require user-defined presets are provided with exactly that by a very handy mode control button on the tools panel.

Verdict

When it comes to image creation, composition and post production touch-up of either rendered or imported still images, Photogenics quite simply leaves all other IP and Amiga paint programs for dead. If you've got an AGA RTG-equipped Amiga you can't afford not to get a copy. A truly inspired piece of programming.

The bottom line

Product: Photogenics
Supplier: Almathera
Price: £54.95
Tel: 0181 687 0040

Ease of use	10
Implementation	8
Value for money	10
Overall	10

GASTEINER

COMPUTERS

A1200	£237.00
A1200 Combat Pack	£276.00

HARD DRIVE A1200 + A600

65Mb	£114.00
85Mb	£126.00
120Mb	£160.00
240Mb	£220.00
2.5" Hard Drive inc. cable + software	

MONITORS

Microvitec 1438	£245.00
Philips 8833 II	£203.00
Microvitec 1440	£339.00

AMIGA A4000

A4000/30	P.O.A.
A4000/40	P.O.A.
A4000/40LC	P.O.A.

CD ROM DRIVES

For A2000 - A4000	
Tandon IDE CD-ROM Controller	£55.00
Mitsumi Dual Speed CD-ROM	£99.00

For A1200 - A600	
CD-1200 Controller	£55.00
Ex-Case with PSU	£84.25
Mitsumi Dual Speed	£99.00
A1200 Overdrive CD-ROM	£165.00

RAM! A500, A600, A500+

A500 1/2Mb	£12.75
A500+ 1Mb	£18.00
A500 1/2Mb with clock	£18.00
A600 1Mb	£18.00
A600 1Mb with clock	£29.00

LOW COST A1200 RAM

32 bit RAM with clock	
1Mb	£67.00
2Mb	£85.00
4Mb	£143.00
8Mb	£254.00
Co Pro for above	
25MHz	£29.75
33MHz	£58.00
40MHz	£109.00
50MHz	£126.00

A4000 RAM

1Mb 32 bit	£25.00
2Mb 32 bit	£59.00
4Mb 32 bit	£109.00

RAM for GVP 30 pin

1Mb	£25.00
4Mb	£109.00

SCSI 2 CONTROLLER

Octagon 2008 SCSI 2 for A1500 - A4000 Controller	
--	--

Octagon 2008	£109.00
170Mb + 2008	£245.00
270Mb + 2008	£280.00
340Mb + 2008	£300.00
540Mb + 2008	£390.00
1 Gig + 2008	£500.00

MICE + TRACKBALLS

Trackball Alfa Data	£25.00
Trackball Air Light	£29.00
Alfa Data Optical Mouse	£25.00
Alfa Data Pen Mouse	£29.00
290 DPI Mouse	£6.50
400 DPI Mouse	£12.00
Mouse/Joystick Switch	£12.00

MODEMS

Supra 288	£206.00
Supra 144LC	£126.00

US Robotics	
Sportstar 2496 + Fax	£92.00
Sportstar 14400 + Fax	£135.00
Worldport 14400 + Fax	£220.00
Courier v32 Turbo + Fax	£203.00

ACCESSORIES

Printer Cable	£5.00
Modem/Null	£9.00
Scart Cable	£9.00
A1200 Clock	£12.50
Dust Covers	£2.50

DISKS HD or DD

100% error free bulk disks	
	DO HD
10	£3.50
50	£16.25
100	£31.50
500	£150.00
1000	£270.00
	4000 DO
10	£6.00
50	£27.50
100	£52.00
500	£225.00
1000	£400.00

PRINTERS

CITIZEN	
ABC Col.	£126.00
200 Col.	£161.00
240 Col.	£186.00

HEWLETT PACKARD	
310	£194.00
520	£211.00
500 Col.	£250.00
560 Col.	£380.00

SCANNERS

Alfa Data 256 with OCR	£125.00
Minimum 2Mb RAM + Hard Drive	

Alfa Data New 800 DPI	£100.00
Power V4 Mono	£100.00
Alfa Data Colour	£100.00
Epson GT 5500	£550.00
Epson GT 8000	£660.00
Epson GT 9500	£750.00
Image FX	£99.00

HARD DRIVES

IDE Alfa Data controller and Hard Drive for A500, A500+, A2000, A3000 and A4000 with optional 8Mb RAM upgrade	
Controller	£75.00
120Mb + Controller	£200.00
210Mb + Controller	£210.00
420Mb + Controller	£230.00
540Mb + Controller	£250.00
800Mb + Controller	£500.00

RAM for above

2Mb	£70.00
4Mb	£140.00
8Mb	£280.00

POWER SUPPLY

A500, A500+	£28.00
A600 + A1200	£28.00
A1500 + A2000	£70.00

3.5" DRIVES EXT.

Amitec 3.5"	£50.00
Power 3.5"	£50.00
Power 1.76"	£50.00

3.5" DRIVES

INTERNAL REPLACEMENT

A500, A500+ internal	£37.00
A600, A1200	£37.00
A2000	£37.00

WARP ENGINE

FOR A4000 ONLY

28MHz	£650.00
40MHz	£1000.00

GIG MEM DISK EXPANDER

Disk Expander	£25.00
Gig Mem.	£39.00

RAM FOR GVP A1230

1Mb	£60.00
4Mb	£165.00

ACCELERATORS

Viper 8030 for A1200

Viper Turbo	£135.00
Viper + 1Mb	£152.00
Viper + 2Mb	£185.00
Viper + 4Mb	£235.00
Viper + 8Mb	£320.00
Viper + 16Mb	£485.00
Viper + 32Mb	£785.00

GVP A1230 II for A1200

50MHz	£250.00
1Mb	£280.00
4Mb	£400.00
8Mb	£550.00

G-FORCE 040 for A3000/A4000

40MHz 4Mb RAM	£1150.00
---------------	----------

G-FORCE for A1500 - A2000

030 40MHz	£575.00
030 33MHz	£820.00
EGS Spectrum	£320.00

ROMBO PRODUCTS

Vidi 12 RT	£120.00
Vidi 24 RT	£195.00

REPAIR SERVICE

New service/centre for most Amiga computers. We offer a quotation service of £10 for which we will examine your computer and report back with an exact quotation price for the repair. If the repair is carried out the £10 is then deducted from your bill.

HOW TO ORDER

When ordering by telephone please quote your credit card number followed by the expiry date and also your full name and address. If paying by cheque please make it payable to Gasteiner Technology. In any correspondence please quote a phone number and also a postal code, please allow five working days for cheque clearance.

DELIVERY CHARGES

Small consumables and software items under the value of £50 please add £3.50 P&P. Other items above £50 please add £10 courier service. Offshore and highlands, please call for a quotation. In addition, we offer the following express services: Saturday delivery normal rate plus £15 per box. Morning, next day normal rate plus £10 per box. E&OE prices subject to change without prior notice. All trademarks acknowledged.

Official purchase orders welcome from Educational establishments and major corporates. (Strictly 14 days net). Please phone for approval.

All prices exclude VAT. Prices and specifications subject to change without notice. E&OE.

126 Fore Street, Upper Edmonton, London N18 2AX

Tel: 081-345 6000 Fax: 081-345 6868



Major credit cards accepted

Spirit of the Pharaohs

Amiga animator Alternative Image has landed the work for a TV animation called Spirit Of The Pharaohs. Gary Whiteley finds out how and why it is carving its name on the walls of what could be a new Temple Of Doom

For several years the Americans have been grabbing all the big Amiga animation headlines. With quality shows like *Babylon V*, *seaQuestDSV* and *RoboCop*, it's easy to see why the combination of creative animators, Lightwave, the Amiga and US TV money could make a big mark on the schedules.

And with NewTek's guiding hand and enthusiasm for reworking its software to provide for the whims, fancies and needs of these creative types, Lightwave advanced by leaps and bounds alongside the programs it was helping to create.

However, until the Lightwave software was unbundled from the Toaster, there were very few UK or European users keen enough to shell out large amounts of cash just for the privilege of being able to run one of the world's best value-for-money 3D packages – Lightwave 3D and Modeler.

Since NewTek has freed its 3D software from the Toaster there's been a great surge in interest in Amiga animation, and evidence of this can be seen in the rave reviews and features that the Amiga magazines have been heaping on everything Lightwave.

One UK video, animation and Amiga company that has kept plugging away through the hard, pre-Lightwave years was, of course, Alternative Image, whom most readers of *Amiga Computing* will already be familiar with, if only for its Big Alternative Scroller titling products and its sets of texture maps.

If that's all Alternative Image did then I wouldn't be writing this piece on the company. What's especially interesting to me – and hopefully to you too – is that even during this time of uncertainty over the future of Commodore and its products, the team has been hard at work, producing two serious animation projects, at least one of which is about to appear in BBC2's Graphic Action slot (that's the one after

Star Trek) in the first quarter of 1995.

Because Alternative Image has always worked with the tools it considers best suited to the job in hand – and that don't always cost an arm and a leg – it took Lightwave on board to complement and expand its capabilities, rather than replace the Real 3D software which has been a stalwart – in fact almost a trademark – of its 3D production ever since it became available.

Apart from its undoubted modelling and animation power, the main reason for Alternative Image sticking with Real is that Art Director and boss animator, Henri Bujko, has extensive experience with this software and felt that completely jumping

software platforms would be rather pointless, given that he would lose all the valuable wrinkles that he's learned with Real over the years and which help him produce work in his own unique style – work which has undoubtedly been impressive enough to help sway the powers that be into putting their faith in Alternative Image to produce both *Spirit Of The Pharaohs* and *Seven Wonders Of The World*.

I was curious about how Alternative Image came to be making these productions, and indeed

how it was making them, and how the finished animations are turned from ideas into a



finished broadcast tape, so I went up to Leicester to meet Henri Bujko and Martyn Bibby, the Amiga animators producing the moving images for these projects.

I should mention that, like most commercial companies, Alternative Image is a little shy of giving away some of its animation techniques and, understandably, discussing budgets, so you'll have to make some inspired guesses of your own if there's not as much detail as you'd like in some parts of this piece.

Alternative Image isn't a big flash company with marble-clad offices and receptionists with perfect red nail polish fending off small-fry customer enquiries. It is a hands-on set-up in a terraced street in an older suburb of Leicester, but it's got all the computer and video production equipment it needs packed inside the premises.

DEADLINES

At the back of the building is the computer area, which is where I found Henri and Martyn hard at work on the two projects, now running side by side as delivery deadlines loom closer on the horizon.

Around them are several well-equipped Amigas, piles of storyboard and artwork, software packages and disks, with scenes being either set up, rendered or transferred to a DPS PAR (Personal Animation Recorder) – the first destination for Alternative Image's Amiga animation output. The PAR has now completely superseded the previous *SimpaticaHi-Band SP U-matic* single-frame system as an animation recorder, because of its speed, quality and convenience.

Both the current animation projects (*Spirit Of The Pharaohs* and *Seven Wonders Of The World*) came to Alternative Image in a slightly roundabout way.

Independent producer Terry Jervis, who has jurisdiction over the Graphic Action slots, mentioned his nascent *Spirit Of The Pharaohs* project to Mike Adams, a Leicester-based sound and music producer, and asked if



Seven Wonders Of The World



Temple Of Artemis at Ephesus



Pharos (lighthouse) At Alexandria



Originally designed as a 'filler' to accompany Spirit Of The Pharaohs onto video release, Seven Wonders Of The World has begun to take on a life of its own.

Taking its cue from the seven wonders of the ancient world, it offers a bird's eye view of what these sites might have been like in their heyday – however, apart from the Pyramids of Giza there is no physical evidence remaining of the other six wonders, so how they look here is more an artistic interpretation than the truth.

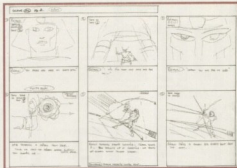
Unlike Spirit Of The Pharaohs, Seven Wonders is almost entirely 3D modelled (using either Real 3D or Lightwave 3D), and includes work by other animators. Andy Jones, UK tech support guru for Activia UK, provided the Pharos at Alexandria sequence, while Yuri Large (also of Alternative Image) provided the Pyramids scenes. Seven Wonders will accompany Spirit Of The Pharaohs as a video release.

Mausoleum At Halicarnassus



Pyramids Of Egypt

Storyboards are used to outline the various scenes and actions in a production. Here is one storyboard and several frames which have been rendered from it



he knew anyone who could do the images and animation. Mike recommended Alternative Image and, after some initial contacts and meetings, Terry Jervis duly contracted the animation duties to them. Al then found a graphic artist to produce the original artwork and the project began in earnest in July 1994, only to quickly grind to a temporary halt when the artist apparently bottled out. Another local artist, Ian Peterson, was drafted in and it is now Ian's job to produce the storyboards (based on Terry's original script) and all the foreground artwork.

The non-Amiga backgrounds are drawn by Dave Oxford, and both artists maintain a close working relationship, as well as regularly discussing upcoming designs with AI and Terry Jervis for approval. All the artwork for Spirit Of The Pharaohs has a modern comic-book style, with bold, upfront and colourful graphics which transfer well to computer-style animation and complement the action and adventure in the storyline. All the original artwork is drawn on A4 paper in a mixture of paint and ink, rather like traditional cel animation, though without all the in-between positions.

One of the biggest challenges of the Spirit Of The Pharaohs project is that initially it will be 30-minutes long (there is also the possibility of a further 30 minutes, subject to approval), though this will

be split into three ten-minute segments for TV transmission. This meant that around 45000 separate frames needed to be produced, though not all these will be hand drawn, since this is where the Amigas come into their own.

Once a set of artwork has been produced to match the storyboard action, it is scanned in at high-resolution with an Epson GT-800 scanner driven by Art Department Professional software and saved to hard drive. Depending on the story action required, it may be just a simple matter of compositing foreground and background together for a particular scene or, more likely, a more complex 3D treatment may be needed.

OPERATIONS

This is where some of the secrecy forbids me from letting too much out of the bag, but I can tell you that ImageFX is usually the first stage in an operation that ultimately leads to using either Lightwave or Real3D to animate the 2D foreground elements against a background image, along with any required lighting effects and movements.

There isn't a standard procedure that can be applied to every scene since each often requires different effects and movement, but the use of clip mapping and lighting effects definitely help to make the animations work.

Once the scene has been constructed in the 3D program and some test images rendered, a full render has to be made of the whole sequence. Henri and Martyn usually work on setting up scenes during the day and leave their Amigas to get on with the batch-processing and pic-



Animator profiles

Henri Bujko

Born in Sheffield, MA in Information Design (1982). Has worked freelance as a corporate, animation and graphics producer and taught graphics at a variety of colleges and educational establishments. Co-founder of Alternative Image in 1987, where he first encountered the Amiga as a stilling machine. Now a full-time animator and graphics producer for Alternative Image. Self-taught 3D animator.

Tips For Success: Keep at it. Practice constantly and keep having new ideas – software and hardware alone does not make an animator. Don't expect to be an instant hit, it could take you years to make a decent living from animation unless you are exceptionally gifted. Don't get discouraged.

Martyn Bibby

Spent five years servicing electronics equipment before taking an OND in photography (1988). Then started a degree in film, photography and animation (1991), before being forced to drop out as a result of the government's changes in student funding. Did the usual range of day jobs to stay alive and continued his interest in computers, buying an Amiga 500 and imagine to learn 3D animation. His work attracted interest from companies like Pygmalion, but no job offers! After being freelance for a while he now works at AI as an animator, since they were interested enough to employ him!



ture crunching during the night. Once rendered, all the images are transferred to the PAR (if they haven't been rendered directly to it) and the sequences checked for speed and content. Normally a sequence will turn out as planned but there are times when unforeseen problems arise – a movement may not work successfully, or a rendering artefact may appear, perhaps as a result of a bug in the software. Colours or lighting might not be quite as anticipated, so minor changes have to be made and the section re-rendered to the satisfaction of all concerned.

Although the artists and animators are generally left to police their own work and provide in-house quality control, the final nod still belongs to Terry, the project's creator and producer.

While the animations are being produced, Mike Adams and Dale Robins, his partner, are working on the dialogue, music and sound effects at their studio. When a worthwhile chunk of animation has been prepared, Mike and Dale come to AI's edit suite and rough-cut the audio they've prepared to the animation sections which have been laid off from the PAR to Hi-Band U-matic SP tape.

TWEAKING

If no major problems arise then the duo take the rough edits back to their studio where they too have an SP system, and here they tweak the soundtrack to their satisfaction to produce a fully-mixed and edited version of all the dialogue and M&Es (Music and Effects).

Once all the separate parts of the programme are finalised and ready for the online edit, all the images and animation sequences are transferred from the PAR to Betacam, the completed soundtrack mastered onto the video tape and that's it. Sounds simple doesn't it? Henri reckons that it could take anything from two to ten hours to draw, input and render a single 25-frame scene (that's one second of animation). Time is tight as they struggle to get all the frames out on schedule.

So the working process goes on, building

up a graphics sequence, rendering the frames and editing the programme together, a scene at a time. I know from experience that this can be a grinding, boring experience which at times seems to have no end and takes over most of your life. You spend your days working in dimly-lit rooms with little access to daylight, especially during the winter months, and the whole thing can get quite depressing if you let it.

But there are plenty of bonus points too. Probably the most satisfying aspect is to be working on a project you think worthwhile, and both Henri and Martyn made it clear to me that while they consider both projects are taking their toll on their daily lives, they are actually enjoying the experience as well, being continually at the birth of each new scene and being allowed a lot of creative leeway to decide what occurs in the animated scenes and how to achieve the necessary action and effects.

Sometimes a simple solution will prove to be a better one than simply throwing computing and software power at a problem. One definite advantage of having several people working on a project (all except Terry are based in or around Leicester) is that if the going gets tough or ideas are thin on the ground, a bit of brainstorming will often get them back on track.

A problem which appears insoluble to one of the crew can often be solved by someone who isn't directly involved with a particular process, and who is able to view it from a distance and can see the wood for the trees.

Alternative Image's problem now is to get the product out on time, and if the deadline is to be met I'd better let them all get back to work. Clutching several disks full of images, and wishing Henri and Martyn good luck, I left Leicester full of wonder about what the Amiga can do, even in what could be its twilight days. I've only seen fragments of Spirit Of The Pharaohs, but it looks like a winner to me.



The AI Amiga setup

Alternative Image has a range of Amigas which are used for graphics and animation rendering. The main machines are an A2000 equipped with a PPAS 28MHz '040 with 32Mb RAM, 0.5Gb hard drive and DPS PAR (with grab option and its own dedicated hard drive) and an A2000 with a Fusion 40 accelerator, 32Mb RAM and another 0.5Gb hard drive.

Supplementary machines include two more A2000s, each with a GVP 33MHz '040 card and 16Mb RAM, plus an A2000 with a GVP '040 accelerator and 20Mb RAM. There is also a DAT D2 drive for archiving rendered sequences, a CD-ROM drive for loading CD-based textures and animation image sequences for image mapping, and an Epson GT-800 scanner for capturing artwork and photographic images.

The software includes Real3D2, Lightwave 3D standalone, ImageFX, Art Department Professional, Sparks, Essence, Imagine 3, Deluxe Paint and Brilliance.

Although this might seem a pretty extensive list, Henri would like to be able to expand the system a bit more to include another PAR (and hard drive) so that high-quality editing can be done at the origination stage, therefore keeping picture quality as high as possible.

Adding a Sunrise card to this setup will enable sound and pictures to be married together for offline work, though the final soundtrack would still be laid down after the PAR-based material has been transferred to component Betacam or other broadcast quality medium.

Henri also plans to network all the Amigas (and any other machines they may acquire in the future) to increase the capabilities of the computing base and to speed the transfer of data from rendering machines to the PAR hosts.

If, or when, the Amiga is finally no more, AI plans to keep working the Amigas for as long as possible, probably fitting 68060 processors to them to keep them performing to their limits. The team will probably try to buy some more A2000s as well, since they believe them to be the most versatile, stable and easiest-to-expand Amiga that Commodore ever produced, more so than the A3000 and particularly the underpowered, overpriced and flawed A4000.

But if the worst comes to the worst, it looks like AI will buy into new, non-Amiga machines, probably DEC Alphas, as such machines offer more power for the pound than the Amiga and because the basis of all the work, the Real 3D and Lightwave software, will run on the Alpha (Real 3D already does, and Lightwave is said to be in the process of being ported). So even if the Amiga doesn't make it, Henri and Martyn won't have to learn a new set of hoops – and they'll have much more processing power available to boot.

Contact point

Gary Whiteley can be e-mailed as drgaz@cix.compulink.co.uk.



Mean, lean machine

Reviewed in last month's issue, Wordworth 3.1 received the coveted Blue Chip award and established itself as the Amiga's most powerful WP package.

As we warned you then, however, the demands made by the program will exclude a fair number of potential users. WW 3.1 requires a whopping 3Mb of memory plus either a hard drive or two floppy drives.

In the light of these problems, the release of this version can only be seen as a wise move on Digita's behalf. SE stands for Special Edition, a package that retains the look and essential functions of 3.1 while omitting some of its more advanced features.

This two-lane approach actually makes a lot of sense, even for users with Amigas powerful enough to run the full version. Users can now assess their needs and decide whether they have to spend the full whack just to make sure they get the most advanced WP on the market.

Digita has found that most people don't actually use some of the more specialised functions. WW 3.1 is important because it gives the serious user power to match PC word processing, but the fact is that the cut down SE will be perfectly adequate for most people, despite a greatly reduced price tag.

SE is designed to run on the most basic 1200, with its normal 2MB memory and its single internal floppy drive. In comparison to the five floppy disks that WW 3.1 consumes, this leaner version requires only three.

On booting the program up it's surprisingly

Following the arrival of Wordworth 3.1 last month, Digita has released a stripped-down, cheaper companion. Gareth Lofthouse tests how well the SE version shapes up

difficult at first to spot any differences with its older and more expensive brother. The interface appears to be identical, even down to the well-drawn tool bar.

Since SE omits some advanced features, I was expecting the removal of the drawing tools in favour of a down-to-earth text handler. To my surprise, however, WW 3.1's object creation tools are completely intact.

Similarly, the benefits of the dictionary and the auto-correct facility are still available, as is the convenience of drag and drop editing. There's no doubt that SE remains a powerful

little word processor, yet it runs quickly, even on the normal 1200.

So what is missing, you may ask? The most serious omission in my view is the vast choice of fonts offered by WW 3.1. This version can only use compugraphic fonts, drastically reducing the options.

Other handy facilities that have gone are the Table Generator and the Print Manager. In both these areas the ordinary 3.1 excels, so the serious user may feel their absence is too great a handicap.

Less important for most people is the lack of a Table of Contents creator, Bookmarks, the Index Creator and the Librarian facility. All these things are good extras, but only a minority of users need them.



Designing your pages

Something often forgotten when it comes to DTP is the importance of having a monitor which takes advantage of your package's capabilities. The fact is, unless you have a monitor which will support Hi-res No Flicker you won't be benefiting fully from Wordworth's WYSIWYG system.

In normal Hi-res, for example, when you create a circle it will be produced on screen as an oval shape. This means that the user will find it more difficult to design the page layout because the printed document will not look the same as it does on your monitor.

Unfortunately, medium resolution monitors will not support Hi-res No Flicker. To make the best of DTP functions, you'll need either an SVGA monitor or a Multiscan, the latter allowing you to play games as well.

For the user who wants to go for real professionalism, it may be worth investing in a graphics card like Picasso or Spectrum, which will allow for more colours and a better look in general.

End result



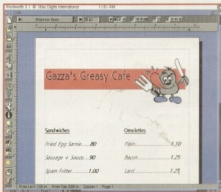
SE is a product that exudes an air of good sense. Far from being the poor man's alternative to its more powerful brother, it retains many impressive features that may make many buyers wonder if it's worth spending more.

The message is: do not be tempted to buy the most expensive product just because it's the flashiest contender on the market. Remember, few people will need more features than this slimmer version of WW 3.1 already offers.

Giving access to Wordworth for ordinary Amiga users and banishing fears that Digita was pricing itself out of the market, this product is highly recommended for everyone's consideration. SE sets a new standard in value-for-money for the New Year.



An example of the professional touch Wordworth SE can give to your documents



Colour, frames and whirling text effects make dull letters lively

SYSTEM ESSENTIALS

RED = Essential BLACK = Recommended

2 Mb

RAM

2.4+

Workbench

The bottom line

Product: Wordworth 3.1 SE

Price: £49.99

Supplier: Digita International

Tel: 01395 270273

Ease of use	9
Implementation	9
Value for money	9
Overall	9

EPIC

Order hotline. 0793 490988

VISA MasterCard

AMIGA CD ROM TITLES



ADULT SENSATION NEW!
Over 3000 AGA pictures of lovely ladies in various poses. Compatible with Amiga & PC. Please quote over 15 when ordering.
£19.99



17 BIT PHASE 4
Thousands of brand new Amiga software, games, demos, tools are all included.
£19.99



LOCK 'N' LOAD GAMES CD
Over 1,000 top Amiga games. Includes shoot 'em ups, platformers, puzzle games and loads more.
£19.99



PROFESSIONAL GIF CLIPART
Over 1,000 brilliant 256 GIF pictures, all subjects included. Compatible with Amiga & PC.
£19.99



CDPD IV
Includes at least 1000 discs, loads of tools, graphics, games, imagine objects and loads more amazing tools.
Over 600MB worth.
£19.99



GFX SENSATION
Hundreds of MB of Amiga replacing tools and data. Includes over 200MB of objects for Imagine & Lightwave, as well as hundreds of textures etc.
Only £19.99



COVERGIRL STRIP POKER
Play poker with some of the world's most beautiful women. 8 soundtracks and digitised speech make this a super CD ROM title.
CD32/CDTV/AM50 ONLY. *optional required.
£19.99



HOTTEST 4
Includes over 1,000 titles. Games, Demos, Utilities are all included.
£19.99



WS CLIPART CD ROM
Over 25,000 Clipart images, every subject imaginable is included. Fx, Dfx, Wf, Bksh, Card Draw, Colour, Offset, ProPic, PageStar, Mfg and more.
£9.99



WS FONTS CD ROM
Thousands of top quality professional fonts. Adobe, Compagraphics, Bitmap, PCX, Coloured, TrueType & Postscript.
£9.99



SPACE & ASTRONOMY
Over 1,000 superb 256 colour pictures of our solar system. Also includes official NASA documentation dating back to 1962.
£19.99



EUROSCENE
Includes hundreds of stunning new Amiga demonstrations plus source code.
£14.99



MULTIMEDIA TOOLKIT 2
Includes fonts, textures, backgrounds, sound FX, sampled musical instruments and everything else to do with multimedia.
£19.99



LSD COMPENDIUM
Includes the complete set of LSD Legal tools as well as new animations, demos and tools.
£19.99



ASSASSINS GAMES CD
The complete Assassins games set. Over 200 games discs on one CD. That's more than 700 individual games on one CD.
£19.99



AMIGA TOOLS NEW!
Thousands of new Amiga tools. Comms, DTP, Fonts, Directory managers, CAD, CD tools and loads more.
£19.99



GOLD FISH 1-1000
The complete First Fish collection on 2 CDs. All 1,000 discs, all the latest of which can be run directly from CD. Inc. demos, games, tools, WB stuff, etc.
£29.99



CD32 LINKUP
Includes around 150 floppy discs, some original AGA pictures, tools, Networking tools for connecting Amiga to Amiga or Amiga to CD32. Includes Unist text, CD ROM & floppy.
£34.95



PROFESSIONAL UTILS 1590
Over 1,500 of the very best Amiga utilities. Sound, Animation, Graphics, Comms, CAD, Amiga, Autotyping, Virus Killers, Debuggers, HD Tools and loads more.
£19.99



AMOS CD
Includes every disc from the Amos PD library. Games, demos, music & tools.
£19.99



17 BIT COLLECTION
A 2 CD set has 1,700 DMF disc based files, hundreds of games, demos, utilities, graphics and music discs.
£39.99



17 BIT CONTINUATION
Over 1000 archived Amiga files on one CD as well as 140 Assassin's games discs and loads more.
£19.99



SPECCY SENSATION NEW!
Over 800 classic Spectrum games on one CD complete with emulators for Amiga & PC. Remember the good old days for just...
*optional required.
£19.99



SOUNDS TERRIFIC
Over 1,000 of the very best music modules. Sampled FX and instruments. Compatible with Amiga & PC.
£19.99



AMINET 4 NOV '94 NEW!
Latest version of the AmiNet series, includes thousands of tools for Workbench, all archived. (BEST VALUE FOR MONEY).
£19.99

FREE BOX OF TEN QUALITY BLANK DISKS WITH EVERY PURCHASE OVER £25

Priority Order Form

Name _____
Address _____
Postcode _____
Amiga model _____ Payment _____
Credit Card No _____
Exp _____
Please note that not all CD titles will work on a standard CD32, some titles require a hardword and floppy drive.
All CDs can be used on a CD32 linked up to any Amiga.

Order Value

Please send me:	QTY	= £
Other items		= £
Total goods value		= £
Postage & Packing		= £
Amount enclosed		= £

MOST TITLES ADVERTISED ARE IN STOCK
READY FOR DISPATCH

Ordering by post
Simply send us a written order with a list of the discs you require, or simply tick the boxes next to the titles you require. All in your name and address, return or photocopy this page and send it along with full payment to: Epic Marketing, 138-139 Victoria Rd, Swindon, Wilts. SN1 3BU.
Collecting items
These can be collected from our site. For a free order in quick time, please phone us on 0793 490988.
Orders outside our volume, full phone add £2.00 to each title ordered & a minimum of 2 titles apply.
Postage & Packing
UK: Please add £1.00 per CD to UK delivery.
Overseas: Please add £2.00 per CD for air class delivery.
*optional
All titles advertised should work on any Amiga with hardword. AGA titles that do not work on CD32/CD443X must have a 1.44MB floppy.
Ordering by phone
To place an order by phone, call our order line any time between 9.00 & 5.00pm Monday to Saturday with your credit card details and the discs you wish to order. Orders can usually be placed up to 4 days in advance.

OTHER CD ROM TITLES

CD32 1	£19.99
CD32 2	£19.99
CD32 3	£19.99
CD32 4	£19.99
CD32 5	£19.99
CD32 6	£19.99
CD32 7	£19.99
CD32 8	£19.99
CD32 9	£19.99
CD32 10	£19.99
CD32 11	£19.99
CD32 12	£19.99
CD32 13	£19.99
CD32 14	£19.99
CD32 15	£19.99
CD32 16	£19.99
CD32 17	£19.99
CD32 18	£19.99
CD32 19	£19.99
CD32 20	£19.99
CD32 21	£19.99
CD32 22	£19.99
CD32 23	£19.99
CD32 24	£19.99
CD32 25	£19.99
CD32 26	£19.99
CD32 27	£19.99
CD32 28	£19.99
CD32 29	£19.99
CD32 30	£19.99
CD32 31	£19.99
CD32 32	£19.99
CD32 33	£19.99
CD32 34	£19.99
CD32 35	£19.99
CD32 36	£19.99
CD32 37	£19.99
CD32 38	£19.99
CD32 39	£19.99
CD32 40	£19.99
CD32 41	£19.99
CD32 42	£19.99
CD32 43	£19.99
CD32 44	£19.99
CD32 45	£19.99
CD32 46	£19.99
CD32 47	£19.99
CD32 48	£19.99
CD32 49	£19.99
CD32 50	£19.99
CD32 51	£19.99
CD32 52	£19.99
CD32 53	£19.99
CD32 54	£19.99
CD32 55	£19.99
CD32 56	£19.99
CD32 57	£19.99
CD32 58	£19.99
CD32 59	£19.99
CD32 60	£19.99
CD32 61	£19.99
CD32 62	£19.99
CD32 63	£19.99
CD32 64	£19.99
CD32 65	£19.99
CD32 66	£19.99
CD32 67	£19.99
CD32 68	£19.99
CD32 69	£19.99
CD32 70	£19.99
CD32 71	£19.99
CD32 72	£19.99
CD32 73	£19.99
CD32 74	£19.99
CD32 75	£19.99
CD32 76	£19.99
CD32 77	£19.99
CD32 78	£19.99
CD32 79	£19.99
CD32 80	£19.99
CD32 81	£19.99
CD32 82	£19.99
CD32 83	£19.99
CD32 84	£19.99
CD32 85	£19.99
CD32 86	£19.99
CD32 87	£19.99
CD32 88	£19.99
CD32 89	£19.99
CD32 90	£19.99
CD32 91	£19.99
CD32 92	£19.99
CD32 93	£19.99
CD32 94	£19.99
CD32 95	£19.99
CD32 96	£19.99
CD32 97	£19.99
CD32 98	£19.99
CD32 99	£19.99
CD32 100	£19.99

Epic Marketing
Victoria Centre
138-139 Victoria Road
Swindon, Wilts. SN1 3BU

I remember the Highway Code. I mean, I don't remember many of the rules, but I do remember spending the night before my driving test staving off waves of boredom as I attempted to cram the drab little book.

Of course, such efforts are usually in vain. With cow-like reflexes for my emergency stop and enough collisions with the kerb when reversing to erode the entire pavement, it was hardly surprising that my mind was a blank when it came to the Highway Code.

It's not easy to sit down and apply yourself to learning this type of thing. The code isn't difficult, but it reeks of officialdom in a way that instantly brings a bleary glaze over the eyes of even the most committed student.

Praise and admiration is due, therefore, to 10/10 for attempting to introduce a bit of fun and interest into the process. It has tackled Statistics before, so if anyone can do it, this company can.

The basic style and look of this package is the same as any other release in the series. There are the six different games designed to present the player with over 2000 categorised and graded questions.

Visually, it's of a typically simple and colourful order, but the teddybears and martians of the children's software have been replaced with graphics more appropriate for adults.

The 10/10 achievement record remains in tact except for the fact that the junior school star award system has been removed. The record has always been an effective part of the series, with player progress being updated automatically.

When it comes to the games themselves, 10/10 has again tried to make them more suitable for an older audience than they usually aim at. Unfortunately there's nothing original – these are the old chestnuts bent to educational means.

The game Patience will give you an idea of the package. This is the classic solitaire card game, but to turn over cards you need to answer a question relating to the highway code.

Then there's Clunk Click, a familiar memory game but one which is an effective learning aid when it comes to remembering what signs mean. The sextet is completed by Word Park – an anagram game – Speed



The map backdrop lends a more mature feel to what is basically the same interface

Hardly an original game concept, but at least it works



Seeing the signs

10/10 tot up another success, but this time it's adults who are set to profit from their wisdom

Trap – which is most fun – Rear Window and Sign Post. During all of them, players are asked to recognise signs and answer written questions by selecting from a choice of answers with the mouse. Some of the higher levels require a modicum of logic as well as factual recollection, which makes for a more interesting exercise.

Each has a number of levels and on harder sections the detail of knowledge required is high, so players shouldn't be put off if they start finding things tricky. The same problems keep cropping up, so eventually you'll start to get the right answers

HIGH FLYERS

In fact, test applicants need only pass level four. Level five is reserved for experienced motorists and level six tests specialised and advanced knowledge, so anyone keen enough can progress on to know-it-all status.

The aim for most users, however, is to pass the driving test, and anyone suffering from the jitters will benefit from the dry run

provided by the mock test in the package.

To qualify for the tests, players must score 70 per cent on each of the games up to level four. Having done this, you must then pass the eyesight test, a detail that helps to prepare you for the feel of the real thing.

Everything you might expect on the day appears to be covered, including reversing into a limited opening, anticipating other people's actions, and awareness of road and traffic conditions. To pass, the player must score over 75 per cent, but once they succeed this can only be a great confidence booster.

Did it pass?

We know from past experience that 10/10's system works; they've been showing the way for rivals in the educational field for a long time. It's good to see, however, that the formula can work well for adults as well.

True, the games aren't riveting in themselves, but they're undoubtedly more interesting than parrot learning the booklet. They establish patterns in your mind that makes remembering a lot easier.

Some parts of the system did seem a bit redundant. The separate parent/teacher guide might be a little annoying from a 17-year old's point of view. Nor is such a student likely to be impressed by the print-out award chart.

Even so, I would have been very glad of this software when I was facing the daunting day. This is a unique aid, and one which leaves me hoping that 10/10 will focus on the older market again in the near future.

SYSTEM ESSENTIALS

RED = Essential BLACK = Recommended

1 Mb

RAM

The bottom line

Product: 10/10 Driving Test

Supplier: Snowden Sales and Marketing

Tel: 0625 539494

Price: £25.95

Ease of use	9
Implementation	8
Value for money	8
Overall	8

CALL US ON 01442 233393

CALL US ON 01442 233393

AMIGA SUPPLIES

AMIGA 1200



Superb Xtra Value packs include on-site warranty, free software and mouse mat

	Race & Chase	Innovations
No Hard Drive	£289	£329
85Mb Hard Drive	£432	£462
127Mb Hard Drive	£439	£479
250Mb Hard Drive	£469	£509
340Mb Hard Drive	£499	£539
540Mb Hard Drive	£539	£579

(warranty for A1200)

HARD DRIVES

All our Hard Drives are preformatted and partitioned, complete with cable, fitting instructions and setup software.

20Mb Hard Drive	£69
40Mb Hard Drive	£99
60Mb Hard Drive	£109
85Mb Hard Drive	£116
127Mb Hard Drive	£123
250Mb Hard Drive	£149
340Mb Hard Drive	£179
540Mb Hard Drive	£199
1 Gigabyte Hard Drive	£299

Fitting service includes UK wide door-to-door courier collection and delivery
only £15

2.5" cable only **£10**
3.5" 5' cable only **£19**
Setup Software only **£6**

A1200 MEMORY

Hawk Range

Maximise the power of your A1200 and be ready to fulfil the full potential of the new generation of powerful software. Supports up to 8Mb of FAST RAM and the powerful 68882 Co-Processor. With battery backed clock/calendar facility. Simply plugs in trap door.

Hawk 1Mb/no FPU	£96
Hawk 2Mb/no FPU	£136
Hawk 4Mb/no FPU	£194
Hawk 8Mb/no FPU	£374

Fast 68882

20MHz	£24
33MHz	£59
40MHz	£79
50MHz	£119

MONITORS



Philips 8833 MK.II **£309**
Philips Mtr TV Scott (NEW WHITE CASING) **£189**

Multi Sync High Res Microline 1438 with stereo sound **£284**

MULTI-SYNC COLOUR 0.28 PITCH MONITORS

14" Professionally refurbished. With Deco. Will display All Amiga graphics modes. **£194**

MODEMS

All our modems are complete with Amiga and PC communication software, cables, 2 year warranty and Fax capability.

Faxlink 2400/9600 Fax bps	£69
Faxlink 14.4K bps (V32bis/MNP-5 etc)	£129
Faxlink 19.2K bps (V32bis/MNP-5 etc)	£199

INTERNET THE COMPLETE REFERENCE

The most comprehensive guide available includes more than 750 features plus 1 MONTH FREE ACCESS to the INTERNET only **£23.95**

A1200 CD-ROM

CD 32/Kodak compatible. Plugs into PCMCIA port. Dual Speed. Reads CD32 PCISO9660 Audio and Mac (HFS) CDs



COMPACT disc
DIGITAL AUDIO

ONLY £189

FLOPPY DRIVES

A500/A1200 High Quality External Drive	£34
A500 Internal replacement Floppy Drive	£36
A1200 Internal replacement Floppy Drive	£42

POWER PACKS

More powerful than the original

A500	£39	CD32	£42
A1200	£39	AS90	£42
A600	£39	GVP	£42

SPARES



Hi Resolution Denise 8373	£18
8373 Fast Agnus	£18
Gary Chip DIL	£17
Paula Chip DIL	£19
AS500 Modulator	£35
RF TV Lead	£4
Mouse	£14
A1200/4000/600 chips	£60
Keyboard replacements & parts	£60

Full Range of leads also available

MEMORY

A500 0.5 Meg	£12	A600 1 Meg	£34
A500 0.5 Meg + Clock	£14	A600 1 Meg + Clock	£39
A500 1.5 Meg	£79	PCMCIA 2 Meg	£108
A500 plus 1 Meg	£39	PCMCIA 4 Meg	£158

SPECIAL OFFER A500 2Mb Chip Memory only £124

1Mb Simm A4000	£27	1Mb by 8/9 Simm	£34
2Mb Simm A4000	£69	1Mb by 4 ZIPS	£19
4Mb Simm A4000	£128	256K by 4 DLE	£5
8Mb Simm A4000	£259		

SPECIAL OFFER A1200 Clock/Calendar only £17

WORKBENCH & ROM SWAPPERS

2.04 KickStart Chip	£19
1.3 KickStart Chip	£19
Automatic KickStart Switcher	£18
2.04 KickStart + Automatic Switcher	£35
1.3 KickStart + Automatic Switcher	£35
WorkBench Manuals + Disks	£49
Complete Kit includes 2.04 KickStart + WorkBench Manuals and Disks	£65

WORKSTATIONS

Converts your Amiga into a professional work centre. Allows your Master/TV/external drives/Midi interface/Gemtools etc. to sit above your Amiga saving desk space, in a similar fashion to IBM PCs.

A500 **£29** A600 **£36** A1200 **£39**

SCANNERS



Power Scanner V4	£116
Power Scanner V4 + OCR	£136
Power Colour V4	£236
Flat bed Scanners	£504

CONSUMABLES

Total Branded 00 Disks (10 off)	£5
Quality unbranded 00 Disks (50 off)	£18

Disk Box 50 capacity	£4
Disk Box 100 capacity	£4
Disk Box 200 capacity	£10



Mouse Mat	£2
Printer Paper (500 cut sheets, laser quality)	£18
Printer Paper (2000 sheets, tractor feed)	£18
Dust covers A600/500/1200/monitors	£5

REPAIRS

A500 fully inclusive at only £9.95*	PC's (all makes)	from £25.00
A1200/600/2-4000	SEGA/Intertec	from £10.00
Archimedes (All)	Atari ST/EMEGA fixed price £44.95*	
Monitors/Printers (All)	Atari Falcon/Jaguar	from £15.00



*Excludes VAT & on-site repair. All these prices/charges may vary, subject to manufacturer's approval.

REPAIRS

A Total service from the professionals

- 1) Courier collection UK wide available at only £7.50
- 2) All repairs guaranteed for 90 days
- 3) Fully trained technicians
- 4) Professional international standard rates only £9.00
- 5) Courier return delivery only £5.00
- 6) Professional maintenance contracts available

Call Now on 01442 233393



01442 233393

All Prices include VAT
Educational Discounts available
Cheques cannot carry guarantee number on reverse
No Charge for Normal Delivery

TOTAL COMPUTER SUPPLIES
123 MARLOWES
HEMEL HEMPSTEAD
HERTFORDSHIRE
HP1 1BB

All trade marks acknowledged. Allow 28 days. 1 year warranty. E&OE

All my own work



I have thought of an idea for a computer game which I think would sell very well. The trouble is I can't program and I'm not sure how to get companies interested.

Would they take my idea seriously or do I need to produce a working demo version first? Even if a company does like my idea, how can I be sure that it won't just market it itself as if it was all its own work? Any advice which you can give on this matter would be greatly appreciated - please help!

David O'Conner, Dinnington

Surprisingly enough this is a fairly common situation. Quite often the best game ideas come from none programmers. The trick is to ensure you get a slice of the receipts.

First of all, a demo is by no means essential. What you need to do is simply convey the concept of the game - it's the publisher's job to implement your initial idea.

The best way to achieve that from a none programming stand-point is to produce a pictorial storyboard of the game which you can then take to a number of software developers for evaluation.

Obviously, presentation is important, so the first thing to do is enlist the skills of a reasonably talented artist - assuming you can't do the job under your own steam.

Once your masterpiece is complete, make a copy and mail it to yourself, or better still to your solicitor, using registered post. On arrival put the untouched envelope in a safe place. Under no circumstances should it be opened!

Basically, this is a simple way of registering copyright for its contents. If for some reason the issue of ownership comes in to question, at least you'll have some proof.

If you do have a solicitor it might be well worth a quick call to verify the legal position. However, this technique is almost a tradition in the music business and has proved successful on numerous occasions. If it works for demo tapes it should do the same for games.

Finally, it might not be wise to mention your attempt to secure copyright to potential publishers. It would be all too easy for the company to make a few alterations and claim the concept was all its own work.

Nightmare of my own

I was reading with interest your letter 'service without a smile' in your Christmas issue when I decided that I should write and tell you my recent experiences with a few well known companies that advertise in your magazine every month.

I have been an Amiga user since its launch in the UK (the A1000) and have dealt with a number of companies during my time. Recently, I decided to upgrade my A1200 for development purposes and so that I could use the excellent Lightwave software

package. After reading through the advertisements in your magazine (and a couple of others), I decided to place my order with Indi Direct for a 50MHz 68030 processor upgrade with a 50MHz FPU and 4Mb of RAM and a 270Mb internal hard drive as they seemed a reputable company - also, rather than having to shell out all at once, I could take the opportunity of its 'buy now pay in six months' option.

I sent my order form and was telephoned by Indi the next day to check exactly what it was that I was ordering (good customer service I thought).

I waited the customary 28 days (although I thought they might have been quicker being such a large company) but nothing arrived. I duly called Indi to make sure that it had received my proposal form and every-

thing was fine. I was greeted by a young gentleman who (after supposedly checking) informed me that everything was fine with my proposal but that they were just awaiting a new stock of hard drives to arrive.

As I had been told that everything was fine with my order, I went and purchased Lightwave so that as soon as my hardware arrived I could instantly load it up and start using it.

A further four weeks passed and nothing arrived. Once again I called Indi to see what was happening and once again was told (after checking who I was and what my order was) that everything was fine with my application and that they were still awaiting delivery of hard drives.

The young gentleman assured me that the hard drives were due in that weekend and that he would personally make sure that the drive was installed and sent to me on Saturday so that I should receive it no later than Tuesday of that week.

A further two weeks passed and nothing arrived. By this point I was getting a bit miffed, as you might imagine. I called Indi up again, this time to be informed that they had apparently never received my application - despite being called by them to say that they had to check my order and also despite me calling them and being informed on more than one occasion that everything was fine with my order. I have also recently dealt with 17 bit software and Epic public domain libraries. These people aren't in the

Out of time, out of HELM



I have been impressed with the quality of your recent cover-disks, and hope that you will continue to provide such useful programmes as HELM, given away in the July addition.

I found it one of the most comprehensive multi-media packages that I have come across, and spent a considerable amount of time trying to get to grips with it before the August trial deadline ran out. However, what I have been waiting for is your further in-depth look at HELM, which sadly you appear to have forgotten about. This is a pity, as such a great program deserved a more detailed

review. The trial version impressed me so much that I decided to purchase the complete program, but sadly I can't find a supplier. Having contacted Emerald Creative, I was informed that HELM had been discontinued. Can you please advise if HELM is still available, and if you intend to do a tutorial on this package.

B.A. Mills, Taporley

Firstly, I was not aware that the program had been discontinued. If this is the case I don't feel that we could justify further editorial to the

package. During our promotion there was no mention that the production would be terminated. In fact, improving sales for the complete package was exactly why we ran a time-bombed version of the software in the first place.

I'm afraid the only help I can offer is to invite any retailers who may have stocks to get in touch and we'll print the appropriate names and numbers in the next issue.

In addition, if there are any Helm user groups out there please drop me a line and we'll add them to the list.



game for money like Indi, and are really just giving themselves enough money to live off while providing a service, and I have received my orders from them within a week (usually three-four days), despite paying by cheque.

I have since reapplied to Indi and after a further five weeks have been told that my application has been refused. I am currently sitting with a copy of Lightwave which cost me over £450 and was only bought on the reassurance from one of Indi's staff that my application was fine.

I am still awaiting official notification from Indi Direct that my application has been refused after what is now over 18 weeks!

I would therefore like to warn my fellow readers about Indi Direct, but at the same time heartily recommend both 17 bit software and Epic.

P.S. I have been a reader since issue one and with the excellent tutorials and cover disks, I shall continue to be for the foreseeable future. Keep up the good work.

Colin Brown, Perth

At the risk of becoming even more boring than my contract requires, Indi is yet another company who've generated little, if any complaints during my time with the magazine.

The cynics among you may well think I'm leaping to the defence of the major players simply in order to preserve the ad revenue they generate. However, if that was the case the simplest solution would be to just throw any advertiser bashing mail straight in the bin. Our stand concerning WTS already proves *Amiga Computing's* impartiality when it comes to advertisers.

My only comment in regard to your dealings with Indi is that either it made a rare but nevertheless monumental cock-up or alternatively, simply considered your credit rating unsuitable for its long-term payment scheme.

The only crumb of comfort is the fact that you've only sacrificed time rather than hard cash during your dealings with the company.

As for your comments concerning 17 Bit and Epic, it goes to prove that

Got something to say through the pages of AC? Ezra Surf is our mailman, dedicated to reading your letters and selecting the most interesting for publication. Drop him a line at:

Ezra Surf's Postbag, Amiga Computing, Adlington Park, Macclesfield SK10 4NP

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

Power to complain



Going way back to the beginning of August of this year, I ordered a floating point unit and 200 watt power supply from Power Computing who regularly advertises in your magazine.

To begin with, the power unit sent was only a 50 watt supply and I returned the item. A couple of months later a refund was finally sent to me.

The floating point unit would not work on my machine and after speaking with one of its technical staff I was given a returns number.

Can I get a refund from the company? No! Despite numerous phone calls, letters etc., all I can get is the plaintive cry of "We do not issue refunds on FPU's." I am absolutely sick to the back teeth of this pathetic cry.

Not only has a refund not been given, but Power Computing has also retained the FPU itself, the initial reason being that the item would have to be

checked for damage etc., which I well understand. However, as we are approaching the 'some months later period' there is still no sign of an amicable settlement.

As I have pointed out to Power Computing, 'The FPU does not work on my machine.' It seems difficult for the company to comprehend that statement. Is this why it is being so dogmatic, thus causing so much frustration and aggravation?

Power Computing carries a large advertisement in your magazine - therefore I do not think that the solvency of the company is totally dependent on the refunded cost of an FPU. At no time was it advertised that items found unsuitable would not be refunded and I fail to see why this procedure cannot be carried out! What do you think?

At the end of my tether

Having read the article in *Amiga Computing* December 1994, issue 80, page 58, from the middle to the bottom, regarding WTS Electronics Ltd, I wish to confess that I also was fooled about its honesty, and find it hard to do battle with them as I live in France.

Would you be kind enough to send me the address where I can lodge a complaint with the Trading Standards as mentioned in your magazine, or the Chamber of Commerce or Better Business Bureau.

Edith D. Bosson, France

Okay, this is absolutely the last piece of editorial I'll be running in reference to WTS. In order to get the best legal representation it's always wise to contact the trading standards office which is local to the company in question.

In the case of WTS, the office in question can be contacted by phone on: 0582 409358, but if you prefer to write in the address is as follows: Bedfordshire County Council, Trading Standards Service, 111 Stewart Street, Luton LU1 5NP

although certain advertisers may offer less than ideal service, the vast majority are still doing a good job of keeping the *Amiga* on its feet.

P.S. Thanks for the P.S...

In total disagreement

I am writing to point out that in your reply to D. Goodall (star letter in Christmas *Amiga Computing*) you only agreed with his disappointment with the AGA chipset and problems with his set-up.

I have an Amiga 4000/030 and have never suffered from the problems that he complains of. Also, he is incorrect in saying that Commodore could not fix the bugs as it released a PD disk entitled 1940/1942 Set-up which was designed to cure bugs encountered when using Commodore's own monitors.

The version I have contains new monitor drivers version 40.4 (there is no new driver for Super72) and updates for the following files (old version in brackets):
iPrefs v40.7 (29.11)
Setpatch v40.5 (29.6)
Overscan Prefs v40.2 (39.2)
Obtained from KEW-ll public domain library (081-657-1617). As to Mr. Goodall's prob-

lem with the Super72 800 X 600 screen resolution, the answer to this problem has been printed in the November issue of *JAM* (01895 274449), and involves setting the tool types in the Super72 icon file.

The quality of the display depends on the monitor used. I have not enclosed the settings stated in *JAM* as it is possible to damage a monitor if you use the wrong values.

On my Microvitec 1440 monitor, the Super72 monitor driver gives an 820 X 600 screen which is quite stable, having a slight flicker like DiPAL 640 X 512, but with careful selection of the palette a flicker free display can be obtained. I hope this information is of use to you.

Keith Hankin, West Midlands

Point taken. However, did Commodore issue the aforementioned patch as a freebie to all AGA owners - me thinks not!

On top of that, is it really an ideal situation that Commodore should have to release fixes for Commodore monitors to work with Commodore computers. Personally, I don't think so.

As for running editorial which could potentially damage equipment, this is something we've always shied away from. A user simply shouldn't be put in a financial, or perhaps even a physical risk simply to make a machine do what the manufacturer promised.

First of all, I'd like to make it clear that *Power Computing* should in no way be considered as another WTS in the making. Over the years the company has provided exceptional service to the *Amiga* community.

Due to your complaint being one of the few that AC has received in relation to *Power*, I think you'll understand why your query is being handled with a certain amount of diplomacy.

In my experience, *Power* has always employed a very fair returns policy. As a result my advice would be to go direct to the managing director Mr Tony Ianiri. If your case is valid I'm sure the problem will be resolved amicably.

C.R. Oldham, Manchester

£54.95

Photogenics™

Break through the barriers of your imagination.

Created with Photogenics by Mark Tippet of Almathera.

Paint On effects such as
Emboss, Smear, Tint, Blur,
Negative, Rub-Through and
Solarize.

24 Bit painting with realtime
HAM8 preview.

Support for
Opalvision, Picaso2,
VLab and many
others.

Support for
multiple formats
IFF
JPEG
GIF
BMP
SCULPT
ILBM

Edit multiple images
simultaneously.

Powerful Undo/Redo
features, and multiple
Image Rub-Through.

Natural paint tools
like Chalk, Pen, Pastel,
Marker and Airbrush.

*The ultimate 24-bit graphic and manipulation package for any Amiga 1200 or 4000**

*Natural paint tools - Airbrush, Chalk pastel, Pencils and more;
* Paint-on* effects - Smear, Emboss, Tint, Negative, Blur, Rub-
Through and more; Edit multiple images simultaneously in resizable
windows; Paint in 24-bit with realtime HAM-8 preview
- no 24-bit graphics board required.*



From
Almathera

* Photogenics will work on any Amiga with a minimum of 68020 CPU, 2Mb RAM and Kickstart 3.0.

Photogenics name and the Photogenics logo are Trademarks of Almathera Systems Ltd 1994.
Photogenics is copyright Paul Nolan 1993-1994. Portlines copyright Almathera 1994. All Rights Reserved.

Southern House, Boundary Business Court, 92-94 Church Road, Mitcham, Surrey. CB4 3TD, England.

Tel: 0181 687 0040 Fax: 0181 687 0490

BRIAN FOWLER

Commodore
AMIGA

Computers Ltd

11 North Street, EXETER, DEVON, EX4 3QS

We're Backing Amiga!

Amiga 1200, CD³² and A4000

are in extremely short supply. Phone for latest news, prices and availability.

We have available now memory expansions, accelerators, hard disks (SCSI and IDE), disk drives, multi-to-one disk drives, printers (impact, inkjet, laser), printer and monitor shares, anything you want to accelerate your Amiga? Talk to us, we know the answers!

Imagine a drive which is almost as fast as a hard drive, but which takes disks similar to a floppy drive ...

Imagine filling this hard drive, and then simply replacing the cartridge and instantly having another 103 or even 270 Megabytes of storage available ...

Imagine saving your work to cartridge, and being able to read the data on any similarly equipped Amiga, PC or MAC ...

Now you're thinking SyQuest

From
£199.95

Contact us if you want an Emplant board or a new mouse or the latest DTP software or a second joy pad for your CD32 or a PARNET cable or a CD full of fonts or one full of clip art or CDDP 4 or the latest AMINET CD or a CD32 keyboard adapter or a SCSI controller or a VLAB digitiser or Flowcharting software or anything AMIGA!!!

Turn your 4000/030 into a 4000/040 for only £399.95

Turn your 4000 into a 4000 Tower! - Phone for details. (Also available for 1500/2000, 3000 and 1200)

Can't see what you want? Just ring (0392) 499 755 --- we have more than we can show here!

How To Order

By Post

Send your Cheque/Postal order to the address above. Clearly state your name, address, telephone number and the product(s) you require. Prices can change so please phone to confirm price and availability. Please allow seven working days for your cheque to clear.

By Phone

For an even faster service telephone our sales hot line and quote your credit or debit card number. Friendly and expert advice is available at all times.

(0392) 499 755

Prices Correct At Time Of Going To Press.
E.A.O.E. Please Phone To Confirm Latest Prices. 040026

brian.fowler@cx.computelink.co.uk

compuserve 100072.1536

CD32 Expansion Modules

Add Memory, Floppy Drives, Hard Drives, Keyboard, Printer --- turn your CD32 into a real Amiga!

Great Value at £199.95

Studio II

The Ultimate Utility for Amiga Printing
Now In Stock at only **£49.95**

Retina BLT Z3
Superb 24 bit video card
4MB version
Only £449.95

Other Cards available ...
Piccolo,
Picaso, EGS
--- you name it!

Microvitec 1438
14" Colour Multisync Monitor. All Amiga modes.
£299.95
* or *

Phillips 8833 Monitor. A Classic for only £229.00

CD32 Connection Kit MarkII
Network to any Amiga or PC

With SERNET - "Just Click and Go"

Only £34.99

We have been selling this successfully since October 88! If you want one that works, talk to us!

Upgrade from Connection Kit Mark I available --- Only £16.99

Hard Drives
Quantum 540MB E-IDE £250.00
Fujitsu 1GigaByte SCSI 2 £599.00
IBM Spinfire 1 GigaByte £645.00
IBM Spinfire 2 GigaByte £1249.00

SCSI Controllers
GVP 4008 £129.00 DKB 4091 £299.00

SCSI CD DRIVES
NEC £179.95 SONY £179.95
7 CD Carousel £399.95

... and lots lots more ...
External SCSI cases with PSU available from £69.95.
We stock most SCSI cables, and can manufacture custom cables to your requirements here in Devon.

Fax Modems complete with software. Join the Comms revolution!
From **£189.95**
(BT Approved).
Very Fast
28800bps
modems now available.

Fax us on
(0392) 423480

Compare Our Prices! We don't charge extra for Credit Cards or Standard Delivery.

What You See Is What You Pay!!!

Monday - Saturday 9.30am-6.30pm

0392 499 755



All Prices Shown Include VAT. Standard Delivery Is Free. No Hidden Extras.

Sorting out scan rates

I have recently encountered a problem which I am sure is shared by many other Amiga owners. I have a Picasso II retargetable graphics card installed in my Amiga and am now looking for a suitable monitor.

The Picasso's screen modes range between 36kHz and 63kHz and my Idek MF-5315, which scans between 30 and 68kHz, seems to be suitable. The problem is that many Amiga program screens insist on using the 15kHz PAL and NTSC screen modes and cannot be altered, even using Picasso's Change screen software. An extreme example is ADPro's main control screen.

It would therefore seem that I require a monitor which can scan between 15 and 63kHz, which is asking quite a lot considering monitors which can scan down to 15kHz usually can't scan above 40kHz.

I could of course split the Amiga's RGB signal between my Idek and my existing TV but I don't want to run the risk of sending the wrong signal to one of them.

Would it be worth purchasing a scan-doubler to change all 15kHz modes to 30kHz? If so, can you please recommend one and explain the basic workings?

Brett Buckley, Huddersfield

The Picasso II has its own built-in scan-doubler (usually referred to as a de-interlacer or flicker fixer) which is software controlled from Workbench. Therefore, any 15kHz screens opened from Workbench should be retargeted by Picasso.

Other software, such as games, which take over the entire Amiga system for execution, are always going to be a problem because they usually access the screen directly in a way which Picasso won't be able to handle.

However, monitor technology is constantly advancing, so give Idek a call to check its latest range of monitors to see if it can solve your dilemma. It will probably be an expensive solution though, so you may well have to put up with a two-monitor setup.

IDE v SCSI

As is probably the case with many A1200 owners, I am now at the point of needing a larger disk drive than the 85Mb fitted as standard in my machine.

I'm not totally computer illiterate but I must confess to not really knowing the basic differences between IDE drives and SCSI drives.

I'm given the general impression that SCSI drives are more expensive, but I'm wondering why this is so. Also, what difference in performance, if any, is there between the two?

I would like a drive with a capacity of about 210Mb, which I hope will solve my space problems for some time to come.

It's amazing how 85Mb seems a gorgeous amount of space to have initially and then suddenly, five months later, you find that you are running out of space isn't it?

L. Edwards, Mid Glamorgan

Okay, here goes with a quick explanation of the differences between the two. First of all, and most important in my mind, is that SCSI drives are generally faster than IDEs, both in access times and particularly transfer rates.

Access times are the amount of time the drive takes to position the heads at a particular sector or track. Transfer rates are how much data (usually measured in Mbytes per second) the drive can process.

This is because the drives SCSI

interface handles the majority of the work when transferring data and issuing commands to the actual drive motor and heads. IDE drives leave some of the work for your computer's CPU to handle, thereby slowing things down. This is why SCSI drives are more expensive than IDEs.

SCSI drives are much more versatile too in that you can simply connect other drives in a chain (usually called daisy-chaining) to one another with a simple cable. Each drive requires a unique ID number, which can usually be set using jumpers on the drive or by an ID switch on fully-cased models.

A maximum of seven SCSI devices can thus be connected together. Notice I said SCSI devices – a SCSI device can be a plotter, CD-ROM, magneto-optical drive, tape streamer or scanner, not just a hard drive. As long as it has a SCSI interface and a unique ID number, it doesn't really matter what it is.

A bonus point for IDE drives is that they are easy to install into your computer as the A1200 has a built-in IDE interface. Adding a SCSI device will require that you buy a SCSI interface for your Amiga to talk to the drives SCSI interfaces, which puts the price up again.

So, if you want ease of installation and low cost, IDE drives are your solution. If however, you need high-speed performance and flexibility, there's nothing that can touch SCSI at the moment.



acas

AMIGA COMPUTING ADVICE SERVICE

Time for another bout of problem

bashing courtesy of the

extremely helpful ACAS pages

PCMCIA or no

I have recently been given an 8Mb RAM PCMCIA card for my A1200 from a friend and I have a couple of questions. How large a memory capacity can you get on these cards and how come they haven't taken over from the clumsy trapdoor alternative as a more convenient memory upgrade?

I. Bell, Southampton

They may be convenient to install, but they are a lot slower than trapdoor RAM expansion memory. PCMCIA Ram cards work on 16-bit technology, whereas trapdoor RAM expansion cards are 32-bit.

They are therefore half as fast and you will notice the difference in speed for applications which shove lots of data around in memory, which is pretty much all software really.

As for memory capacity, I've seen 16Mb cards for sale and no doubt there are higher capacities available, but again, bear in mind that there will be a significant performance decrease compared to 32-bit trapdoor upgrades.



Do you have a problem? Do you sometimes find yourself poised over your Amiga with axe in hand, spouting profanity at the stubborn refusal of your Amiga software or hardware to behave properly?

Well, calm down and swap the axe for pen and paper, jot down your problems, along with a thorough description of your

Amiga setup, and send it off to Amiga Computing Advice Service, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP.

Tool types

I have had my A500 Plus for about a year now and am quite pleased with it. I am gradually getting to grips with the powerful Amiga operating system thanks to the numerous tutorials printed in your magazine every so often.

However, there is one particular curiosity which I am not sure about. Exactly what are tool types? I have noticed that many of my program icons have tool types for directories with one called CX_Popup, which is either yes or no. Please can you explain?

W. Hargreaves, Sussex

Tool types are really the same as the parameters you might type for a CLI command. They allow you to do such things as change the way a program operates or even looks, as well as

Expander error explained



I think I've sussed D. Gooden's problem with DiskExpander (Amiga Computing issue 81). From the description, it sounds as if the system partition (DHO) has been packed instead of excluding those all-important forbidden files.

I'm assuming that the program is installed for the device that requires packing, as implied in Mr Gooden's letter.

If we now examine the Device Packer program, from the menu, some options are available. "Forbidden Files" means that certain files will not be packed during the compression process.

The default for this option is off, meaning the files will not be processed. Changing this so that it is ticked will force the program to process all files on the drive, including the forbidden ones.

Forbidden files include the startup sequence, system configuration, essential libraries and DiskExpander itself. If these files are packed, the machine will not start up due to the unpack routine not being available because it too is packed.

All is not lost if this is the case as you can unpack the files using the original floppy. Simply use the Device Packer program, only this time

process the device with unpack and then repack the device, making sure that forbidden files is not checked.

Now go to DiskExpander and switch Pack to off. This is only really necessary for your DHO or System Partition to avoid any accidental packing if you later change any of the forbidden files for any reason.

Modify your startup sequence from DiskExpander using the default option which puts all the pack/unpack commands at the beginning of the startup sequence. The golden rule is: leave all of the "process files" defaults as they are.

Follow the same procedure for DHO or Work partition, remembering it needs a separate install and another modify startup. Leave the Pack option on with this partition so that all future writes to the hard disks are automatically compressed on the fly.

John Ward, Derby



Many thanks for your suggestion. I'm sure Mr Gooden will be eager to try out your theory and hopefully, it will be the solution to his problems. Remember, if you

providing general information.

Tool types which define a particular directory are probably telling the program where it can find various data files in order to function.

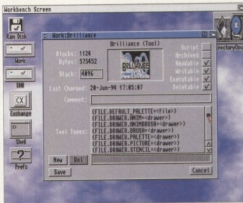
As for the CX_Popup tool, this simply tells the Amiga whether a program's interface should appear when it's loaded.

Only commodities which are designed to run at boot-up in the background generally use CX_Popup, but authors are free to use their own.

If you want to change any program's tool types, just check the program manual, which should tell you what they actually do. My first experience with tool types was when a program I had always loaded in interface screen mode.

I could not find a function in the program's menus which would allow me to change this, but a quick look at the manual informed me that a tool type could be changed to achieve this.

Tool types are an easy and flexible method of passing parameters to a program



Modem link-up



My friend has a PC and I have an A1200 and we are both very interested in graphics and 3D rendering. We regularly chat and send each other picture files and other related files.

Recently, my friend has bought a modem for his machine. He says it's the best buy he's made and tells me about all the conferences and forums on graphics available on CIX and Compuserve.

Needless to say, I'm now looking at getting a modem to access all this information on graphics. My question however, is that once I have a modem, will it be possible to transfer my Amiga files to my friends PC, or is there a difference between PC modems and Amiga modems?

S. Clark, Warrington

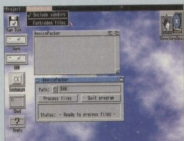


If the files you wish to send are merely graphics or text files, you should have no problems whatsoever, as long as you save your text files as ASCII and your picture files in a format which can be read by your friends PC software.

With the numerous picture file formats which the PC and Amiga can produce, there should be relatively no problems here. The three most commonly and widely compatible picture formats are Targa, TIFF and GIF files, all common to most PC and Amiga graphics software.

The world of modems and communications is pretty much generic so there are no real differences between the Amiga comms and PC comms which will cause you problems. As far as modems are concerned, it doesn't matter what type of computer is at either end of a connection.

have any useful hints or tips to problems which you have encountered and overcome, write in and tell us about them. Not only will you get in print but you will get a warm feeling inside and will probably be guaranteed a place in heaven for being so helpful.



When compacting a system partition, be sure that forbidden files is not ticked

ALL WORK AND ALL PLAY



£299

(excluding VAT)

THE TWO-IN-ONE MONITOR FROM MICROVITEC

There's a new, highly versatile, dual purpose colour monitor that's unbelievable value for both business and games use.

Compatible with all workbench modes, the Auto-Scan 1438 has high performance electronics and an ultra fine tube for sharp, crystal clear images.

Designed and built to exacting standards for

assured reliability and quality by Microvitec, the UK's leading monitor manufacturer, features include:

- 14" screen
- 0.28mm dot pitch
- 15-40 kHz
- Fully autoscanning
- MRPII compliant
- Designed and manufactured in the UK



MICROVITEC
WHEN PERFORMANCE MATTERS

Microvitec Plc, The Quadrant,
Chester West, Sealand Road,
Chester CH1 4QR
Tel: 0244 377566
Fax: 0244 373401

CALL NOW ON 0244 377566 FOR YOUR NEAREST DEALER

Digital depths

It appears that the serious side of CD-ROM is picking up pace. Since our ROM round-up only a few months ago, the wealth of utilities, games, images and sounds available on CD has continued to grow, giving professionals and enthusiasts alike plenty to choose from. Collections including images, sound effects and fonts for titling are extremely useful for videographers, and the good news is that products of an increasingly professional standard are beginning to appear. Users of DTP packages and presentation software will also find interesting material on some of the latest releases.

As well as the more specifically themed CDs, we've included the latest PD and shareware titles including collections from the European and Canadian scene. Each of them contains thousands of programs and images covering just about every Amiga purpose possible.

A word of warning about the more general collections, however. PD is notoriously variable in quality and sorting the wheat from the chaff on each CD will take you some time. If you have the patience, you will be able to find some invaluable items at bargain basement prices.

CD-ROM collections offer oceans of useful bits and bobs, invariably at good value prices. Gareth Lofthouse assesses the latest releases

Nexus Pro Reference Library

The Glasgow-based company, Videoworld, is taking an ambitious step into the CD-ROM market with a product that carries an unusually high price tag compared to the other discs reviewed. Clearly aiming for a professional standard throughout, the maker is hoping it will become the CD to use for DTV or DTP purposes.

Nearly all the background images that I viewed were of a very high quality. In the past, the photography on CD collections has sometimes been of an unimaginative standard. Fortunately the images on this CD often show a more artistic approach.

There's a good range of real life textures to choose from including tree bark, foil and pebbles. This may not sound exciting but they can be used to excellent effect with presentation packages like Scala - for example, information bulletins will have more impact when they're set against an eye-catching background.

The images have been arranged into categories so that searching for a particular photograph is that bit easier. Even better is the inclusion of a picture catalogue which allows you to preview the pictures in a compressed form. Features like this are a Godsend if you haven't got days and days to search through a CD.

Makers of wedding videos are well catered for, with a section of their own. Some of the material here would make excellent interludes to highlight key events such as the signing of the register or the cutting of the cake.

For video makers in general, this CD is one of the best we've seen for giving more professional results. Many of the pictures are in video resolution which means they don't

have to be scaled up - a process which can spoil the aspect ratio (shape) of the picture and tarnish its quality.

The 470 scalable fonts are bound to be useful for DTP users while the 16-bit audio samples are of a good sound quality; unfortunately, they're just the usual sort of sound bites like gun shots and chopper blades.

In short, Nexus Pro does cost considerably more than the average CD library. However, it's less than half the price of the floppy disk version and its material is consistently good enough to warrant more expense.

Image Formats

450 24-bit Jpeg
450 256-Colour IFF
300 256-Colour GIF

Fonts

470 AGFA
Compugraphic
Sound 16-bit IFF



The bottom line

Nexus Pro Reference Library
Price: £55
Supplier: Videoworld
Tel: 041-641 1142

Ease of use8
Implementation9
Value for money8
Overall8

Aminet Share 4

Aminet is a vast collection of freely distributable software, with countless programmers contributing all year round. Until recently, access to Aminet was restricted to international network users, but now the collection is being compiled on CD and updated on a quarterly basis.

Once again, it's a general interest compilation, covering games, utilities, networking software and programming languages. However, it deserves credit for its user friendly guide which makes finding particular items easier. So what's changed since Aminet 3 was reviewed in the last ROM Round-up? This time there's a special focus on music thanks to the inclusion of all the modules from the archive.

This is great news for anyone into Amiga audio. With 230Mb of songs giving 100 hours of playing time, this makes it a valuable product even if you just want to mess around with sounds for fun.

A considerable amount of new material has made its way onto the disk since the last version, so it remains one of the most up-to-date and worthwhile libraries available. Aminet deserves to remain a best seller.

The bottom line

Aminet Share 4
Price: £19.99 + 75p p+p
Supplier: 17th Bit Software
Tel: 01924 368982

Ease of use8
Implementation8
Value for money9
Overall8

Shareware Vol 1

When it comes to buying public domain and shareware programs, a CD collection is the best value option. Each library is vast, containing enough programs to cover literally hundreds of floppy disks, and the Prima Technologies collection is no exception.

It's a relief, therefore, to find a general interest CD that appears to have its material well organised into categories. You'll find graphic utilities in one drawer, music in another and so on - simple as that. This is a strong selling point since some of these collections can be like digital labyrinths.

There are a huge amount of fonts available, including Adobe, Intellifont and Gold disk formats, making this a very attractive product for DTP users. The range of images on offer is also good, thanks to some more original material.

The bits and bobs are more useful and up-to-date than usual. There are utilities allowing Amigas to be linked to Casio or Psion portables, for example, and a few emulators to get your machine imitating a PC or a Spectrum.

For the artists among you, there's a Ray Tracer and HamLab Plus - the latter utility being useful for converting image formats. If you're not into the serious stuff, however, there's fun material like a cheat

compendium, a sound effect program and a variety of hacks. These collections are always handy and cheap for what you get. However, this CD stands out as being better organised and more original in content than the average rival.



The bottom line

Shareware Vol 1

Price: £19.99

Supplier: Prima Technologies

Tel: 0532 322684

Ease of use8
Implementation8
Value for money9
Overall8

Desktop Video CD

When it comes to digital libraries, Almathera seems to have done more than most on the serious CD front. Now it's offering a disc aimed specifically at the Amiga videographer and ray-tracer.

CD collections containing textures and backgrounds are nothing new, and unfortunately the same images seem to be duplicated on many of the products available. Thankfully, there seems to be a reasonable amount of original material here.

For example, Scala users and video makers may find the collection of flag backgrounds useful. There's also a good range of anti-aliased fonts, with sizes ranging from 20 to 300 points, that have been selected with video titling in mind.

Ray tracers are always in search of 3D objects to use, so they should be interested to know that 150 models have been provided for LightWave, Imagine and Sculpt. Items range from cups and teapots to toilets, and though they are not as plentiful or well drawn as objects on the Synthesis collection reviewed recently, they are well worth having at this price.

Useful video-related PD utilities have been included on the disc, a bonus that allows people who don't have the expensive presentation software to make use of the material on the product.

Encompassed in this section are programs like Main Actor and Anim Players for

your animations, Persistence of Vision for ray-tracing and Black Board for image processing. There's also support for graphic cards like Opavision and Picasso II.

This all sounds pretty good so far, but I was expecting to have to pay more than the usual asking price. Amazingly, however, this CD is actually cheaper than the more general CD collections, making it a must for anyone even vaguely interested in video.

Image Formats JPEG, Overscan IFF,
Video Creator
Fonts Amiga colour, Type 1
PostScript

The bottom line

Desktop Video CD

Price: £14.95

Supplier: Almathera

Tel: 0181-687 0040

Ease of use7
Implementation9
Value for money10
Overall9

CAM Collection CD

CAM is another PD collection, but it's different in that it encompasses the Canadian PD scene. Though some of the programs can be found on Fred Fish collections, anyone who buys it is bound to find a reasonable amount of fresh material. It's the usual mixed bag when it comes to the quality of the programs. There's lots of useful items but it does take time to find them among the less interesting games, demos and utilities.

Worth searching out is the Homebudget program, a PD tool designed to assist you with your domestic finances. In fact, CAM's good on the domestic side in general.

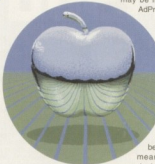
On the creative side there's material to use with Imagine (plus a few items for Lightwave) and a number of standalone graphic utilities. Image studio, for example, is an image processing done of AdPro. If you already have the real thing, however, you may be interested in the included AdPro scripts.

The addition of Main Actor to the package is good news for anyone interested in trying their hand at animation. DTP users, on the other hand, will be pleased to find a range of fonts to play with.

CAM is truly vast: not only does it spread over two CDs, its files have all been crunched as LHAs. This means they are to be unpacked, but this isn't too much of a problem since it can be done from within the Amiga guide.

Unfortunately, the way the collection works is sometimes bizarre. You'd think CD-ROM would put an end to disk swapping, but some programs actually require you to swap CDs. What's more, there's further messing about when you're unpacking onto floppies.

CAM is supposed to be better organised into categories than its rivals, but I found the guide rather inconsistent and unclear at times. Still, there can be no denying that patient people will be able to find most very handy programs here.



The bottom line

CAM Collection CD

Price: £24.95

Supplier: Almathera

Tel: 0181-687 0040

Ease of use7
Implementation7
Value for money8
Overall7

Imagine what you could do with...

...Newtek Lightwave 3D

The definitive 3D rendering and animation software package.

As used in Babylon 5,
Sea Quest DSV, Star Trek TNG...

Metro Grafx Sparks

Particle animation system for
Lightwave 3D.

Desktop Images Lightwave 3D videos by Lee Stranahan

(Newtek's training Guru)

Modeler 1, Modeler 2,

Camera and lighting techniques,
Displacement mapping, morphing and
bones, Surfaces and textures.

Leo Martin's Surface Pro for Lightwave 3D

Collection of 60 surfaces
and textures.

Combo Collection

24 different real world images for
Lightwave 3D.

Macrosystem Warp Engine

The ultimate accelerator.

Fast SCSI 2 Controller,
RAM expansion for Amiga 3000
and Amiga 4000.

DPS Personal Animation Recorder

Broadcast Quality Video System.

SunRise ADS16 Studio 16

DAT quality post production system.



PUTTING MULTIMEDIA TO WORK

**We sell the tools to
fire your imagination.**

**Sales and credit card hotline
0171 721 7050**

Phone for
news of
latest
products

The last two years have seen the computer entertainment's approach to advertising mature. With the realisation that game sales can equal and even surpass those profits made from blockbuster films, the adage that advertising, not quality, sells a product has filtered into the games industry.

The results have been apparent. Eye-catching television and cinema commercials, printed adverts that don't look as if they were designed in the early 70s and so many gimmicks, freebies and mugs with Zoid plastered on them that you wonder if the publishers actually remembered to commission the game during the flurry of marketing strategy meetings.

As the competition heats up and more money is poured into the advertising agencies' pockets than the programmers, the unavoidable problem arises – how do you get your product heard above the shouting and screaming of others as each clambers for space at the top of the software chart?

Controversy. Not so much as to forget the advertisement banned, unless in extreme cases, but enough to raise a few eyebrows and start the finger pointing without sticking the censor's snipe up. Whether it be advertising a game's more fascinating features, such as people's heads being torn from their shoulders or offending religious segments of our society, game publishers continue to walk this tightrope in hope that the end justifies the means.

Judging from *MK* results, it's paid off as well and marketing budgets have swollen, increased and outgrown the games themselves, spawning books, films, cartoons and comics.

Since the dawning of the computer game era, there have been attempts by many publishers to focus the general public's gaze on their wares through the use of sexual innuendo or promises of horrific violence in the shape of self-imposed film certification-like labels splashed across their boxes, but the global type of the kind that we see today was triggered by a very important event in computer game marketing history – *Mortal Kombat*.

On that day, *Mortal Kombat* was released to an expectant and eager consumer. What was so different about this title was the campaign that backed it up. Never before had so much time and money been invested in a single game.

Television, billboards, magazines and other avenues of advertising were all used, with a coherent and researched theme running through each. While the aim was to keep controversy at a minimum due to the concern over media backlash, *Mortal Kombat* was to set the trend by which future campaigns, controversial or not, would be judged.

Shock! Horror! Controversy!

What sells anything?

Sex and violence of

course but how far

would you go to sell

a product? Adam

Phillips investigates



Horror: "You came across barriers and conventions that you try to break. Sometimes it works, sometimes it doesn't"

The rise, rise and rise of the robots

The game is simple – beat the metal bolts out of some renegade robots and you win. End of story. Take away the impressive looking graphics, intros, cutaway scenes, Brian May 'score' etc. and you're left with what amounts to a rather average title.

Then the marketing division came into the board room and the money talk begins. ROR must be one of the most hyped games in the history of computer entertainment. First talked about well over a year ago, the production has been delayed, expanded and apparently improved upon for several long months.

Pages of magazines have been filled constantly with interviews with the makers, sneak previews of the graphics and finally, cover mounted disks for punters to at last see what the fruits of marketing labour has born them.

On final arrival, it's obvious that the game

content itself isn't going to raise the eyebrows of monitoring bodies – chunks of metal flying across the screen doesn't really catch the sight of somebody's spinal body being yanked from their body aka *Mortal Kombat II*.

So why has the game advertisement been banned during children's and religious programming by the Broadcast Advertising Clearance Centre? If you haven't seen the advert then, like the game, it is simple – cue shots of black and white footage with a Mary Whitehouse-like voice-over talking about the beauty of yesteryear and its pastimes. Then cue a large robot smashing through the scenery and looking menacing.

Include headlines that flash above the metal hunk such as "Are you religious?" and "You can't dance with broken legs" and the controversy begins. To top this, place an ad in the popular *Viz* comic with a large robot saying "I want to kick your f***ing head in" and people are hopefully going to stand up and take notice.

Jeff Tawney, marketing manager at Time Warner Interactive, is quite happy to admit that controversy in most cases is by no means a bad thing. His brief to the advertising agency, Musto Merriman Hemm Levy – a hot-shot new company based in London responsible for commercials for Prudential and Lowenbrau Lager among others – was to create an advert that would stay in people's memories long after viewing.

"You need strong advertising to reach the widest possible audience and to stand out from the usual game competition", commented Tawney. In fact, Tawney has loved the

backlash and believes that the commercial doesn't harm the image of the software industry. "It's tongue in cheek and not meant to be taken seriously," he said. "If people are offended though then that's their problem."

At M+H, Damien Horner commented on the ROR: "The strategy behind the campaign was that gamers pride themselves on their gaming abilities and we were issuing a challenge to them – like two boxers psyching each other out before a bout."

They also wanted to zero in on the rebellious nature of gamers – that parents don't understand computers but their kids do. "We were told that being controversial would not be a problem" commented Horner. "We did what we felt would be most appropriate and given the objectives of the game and audience, the controversial approach was deemed to be suitable."

Then the problems started. The Broadcast Advertising Clearance Centre said no to the first proposal, deeming it unsuitable for television. "They said: what you're doing is endorsing and advertising violence," stated Horner.

Subsequent revisions reduced the strong phrases that appeared with the robot. "It's only worth getting banned if the PR coverage you get out of it outweighs the media space you could put behind it," Horner reflects. "If you only receive a couple of articles (in the national or specialist press) for being banned, you could actually lose money."

Companies' appetites for controversy are constantly fuelled for bigger and better campaigns – "With being a new agency, you contract clients who want to push things forward a bit, who are slightly braver in their approach and consequently work tends to reflect that," said Horner. "You come against barriers and conventions that you try and break. Sometimes it works, sometimes it doesn't."

So where does the buck stop? Asking Horner about the likes of Doom 2's campaign, where jiffy bags of offal were sent to publishers, he is not impressed. "It's controversy for controversy's sake. The Rise Of The Robots commercial was rooted in the game itself, based on an overall strategy. The likes of Doom 2's campaign suggests either a lack of budget, or a lack of an idea."

Even advertisers can have their standards...



The ROR advert mixes black and white footage of yesteryear with threatening robots issuing ban-worthy challenges to the viewer



Accidental anti-hero

It started with a poppy. Sensible Software was just about to release a high-calibre game called Cannon Fodder and a cover was needed for the packaging. No advertising agency was called in, no special marketing department was mobilised – no, the lads down in Cambridge came up with the press-stealing image by themselves.

And then all hell broke loose.

Amiga Power, the games magazine, had intended to publish the December issue to coincide with the release of Sensible's Cannon Fodder. When the Royal British Legion learnt of the box design and intended poppy motif cover, strong words were exchanged and the artwork was withdrawn by both parties. The acting editor at the time, Stuart Campbell, wrote an unfortunate comment that he regrets in the editorial which we are unable to print for legal reasons.

With this, the hounds of Fleet Street's press pack were unleashed. A story appeared in the Daily Star condemning the comment. Subsequently, Campbell received death threats from sons whose fathers had fought in the war.

As cynical or distasteful as it sounds, a marketing situation had developed that most companies would kill for. Perhaps the game would have sold just as well on its critically acclaimed merits alone, but it would seem that publicity such as the Amiga Power-Cannon Fodder episode can only help a game's sales figures.

"We didn't choose the poppy to cause a fuss. We chose it because the poppy symbolised people dying in war and a lot people die in Cannon Fodder so it seemed appropriate" said John Hare, head of Sensible Software.

And the song "War's Never Been So Much Fun" featured in the intro to the game? "We chose the song because it's a piss-take. There's a strong element of satire in there but certain people don't seem to appreciate satire, especially in computer games."

And those sort of people are the Royal British Legion. Jeremy Lillies, a spokesman for the RBL commented: "The whole thing was totally unacceptable to us... had the poppy appeared on the cover, it would have caused grave offence to the ex-service community which forms about a third of the population of this country."

While financially, the unexpected publicity may have paid off, Hare is not so optimistic about the creative restrictions that controversy can produce – banning, legalities and other such barriers he believes are stunting the growth of adult-related software titles. "It's becoming a nightmare for us with all this legal rubbish. It's getting in the way of producing games and is going to become a serious problem."

As for the marketing push behind such titles as Mortal Kombat II and Rise Of The Robots,

That game's got guts!

Doom created a global phenomena on its release. Massive corporations ground to a halt as employees jammed the network while indulging in multi-player games of the first person shoot-'em-up. The computer press went crazy. Anyone who didn't own a PC felt pang of envy, and the game has entered the gaming Hall Of Fame to stand alongside the likes of Elite, Streetfighter II and others.

Virgin started with a surefire thing when ID software, the developers of Doom's sequel, sold them the distribution rights. Doom 2: Hell On Earth could have been released without a single advert and still cleared up financially, but in true Richard Branson style, putting up with only second best has never been enough.

"Our intention was always to create a controversial campaign," states Paul Dowling of the creative agency Leisure Process Interactive. "Doom 2 is a brilliant game that is bloody and aggressive. We took this creative idea and needed to portray it in one message."

The main offensives of the campaign were the rather graphic ads placed in the

press, on billboard posters and in a series of jiffy bags sent out to certain journalists and publishers. These were designed by Bastion, a PR company brought in by Dowling.

The main feature of each of these was a rather large amount of offal. The posters consisted of various bodily organs in sickly close-up with Doom 2 prominently splashed across it.

The same style was used on the billboard adverts that sprung up in 48 different sites around London's West End.

"We knew it would upset people but it wasn't a problem because we needed





Royal British Legion: "The whole thing was totally unacceptable to us"

he states: "There is perhaps a glorification of violence but people can deal with it."

Since the controversy over the original, Cannon Fodder II has been released with the focus aimed squarely on safely getting the products on to the shelves. As for future releases, one Sensible Software title concerns sex, drugs and rock 'n' roll and, instead of the potential controversy encouraging buyers, John Hare knows that, while potential publishers like the game content, they fear releasing the title because of the expected media backlash that would accompany it.

that campaign to generate the PR," commented Dowling. Meanwhile, Virgin's marketing manager, Simon Jeffrey, offers the official line: "We never mean to offend people - what we want to do through our marketing is to grab people's attention."

ENTRAILS

The final and most attention-grabbing scheme were the bags of animal entrails sent to various newspapers and other publishers. The instant reaction was one of disgust from some quarters. Apparently, a vegan from *The Independent* rushed round to the Virgin

headquarters to complain strongly.

The *Mail* and *Evening Standard* threatened police action, claiming the package infringed Section 5 of the Public Order Act which states it is an offence to deliberately cause distress to people.

Jeffrey clearly states though: "Nothing came of the campaign [in terms of adverse publicity]. We did have the police after us and they asked us to calm down our marketing activities, which is fair enough."

The biggest fuss though was centred round a demand for dry cleaning bills to be paid - apparently, some of the packages leaked their contents onto unsuspecting newsdesk editors.

"I have to say, we did get a lot of irate calls from people claiming their suits had been ruined and that they were going to hit us with a bill for it," commented Ciaran Brennan from Bastion. "But we never received any bills so I don't think anybody actually suffered because of it."

While there is never any way of judging exactly how successful a campaign has been, the simple fact remains that Doom 2 continues to sell at a rather healthy rate, and Brennan is happy to admit: "Well, it wasn't the nicest thing we ever did."

Featured on 48 billboard sites in London, the Doom 2 poster was removed with the aid of complaints made to the ASA

Advertising Standards Authority

While the creative agency behind the Doom 2 campaign told us that the Advertising Standards Agency received a 'flood' of complaints about the billboard sites in London, in true advertising tradition the truth is just a touch more unexciting than that.

Caroline Crawford at the ASA commented: "We contacted the advertisers and said, are you planning to use this campaign again because we've had a couple of complaints about it and the general public might not consider this approach to be very tasteful? And they said: No, we're discontinuing this particular poster, so we didn't feel any further action was necessary."

The ASA has the power to have an advertisement (not television or radio) removed over night if necessary and doesn't require a certain amount of complaints to use its authority. As for the computer game industry's advertising as a whole, controversy is the exception to the rule, not the norm, at the moment.

"Many game publishers using

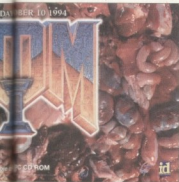
Another campaign from Virgin, this time Earthworm Jim, a new platform game. There have been problems with the arrow pointing at the ballet dancer's crotch and in subsequent ads, it has been removed from certain billboard sites.



product placement or advertising within games are concerned to be seen as responsible advertisers, so they have been contacting us to get our opinion before sending the ad out. We welcome that kind of contact."

The worst case scenario is, if advertising becomes more and more controversial there's a chance that legislation will be slapped on the games industry which could, potentially, be far more damaging than working within 'the reasonable guidance' of the Advertising Standards Authority.

At the end of the day though, Crawford doesn't see authority groups as the real threat to the games industry, but the consumers themselves. "Quite often it's the consumers who say: that's enough, that's gone too far..." Parents are very concerned about certain sorts of material and might try to restrict their children's access to it. This in turn affects the commercial viability of a product, so the industry's self-restraint is guided by what the consumer will find acceptable."





RAMIGA

INTERNATIONAL LTD
TEL. NO. 0690 770304
FAX NO. 0690 770266



SEE THESE BOARDS IN ACTION ON STAND 32 AT THE WORLD OF AMIGA SHOW



EUROPE

Power your AMIGA 1200 into a new dimension of speed & productivity with the lightning fast new range of D.K.B. Cobra & Mongoose accelerators. With one of these installed inside it your Amiga 1200 can affordably join the ranks of the serious Amiga users by utilising the following enhancements:

- 1) Fast 68030 processor speeds up all aspects of your Amiga 1200's performance.
- 2) Memory expansion up to 128 Mb allows many memory intensive programs such as graphics and DTP packages to run at their full potential.
- 3) Optional 68882 Floating Point Unit speeds up maths-intensive tasks such as 3D ray-tracing.
- 4) Hardware clock with socketed Lithium battery.

Also included free of charge with each board is the amazing IMAGEMASTER R/T graphics program from Black Belt Systems. This ultra-powerful program features built-in morphing and dozens of image processing features. Normally this program retails at £70.

All these upgrade options are available at an astoundingly affordable price. Just choose your required configuration from the price list below:

COBRA 28

28 MHZ 68030 WITH MMU &
OPTIONAL 68882 FPU



COBRA 40

40 MHZ 68EC030 WITH
OPTIONAL 68882 FPU

Mem. F.P.U.	0 Mb	4 Mb	8 Mb	16 Mb	32 Mb
NO FPU	£ 159	£ 289	£CALL	£CALL	£CALL
33 MHZ	£ 219	£ 349	£CALL	£CALL	£CALL
40 MHZ	£ 249	£ 379	£CALL	£CALL	£CALL
50 MHZ	£ 269	£ 399	£CALL	£CALL	£CALL

Mem. F.P.U.	0 Mb	4 Mb	8 Mb	16 Mb	32 Mb
NO FPU	£ 219	£ 349	£CALL	£CALL	£CALL
33 MHZ	£ 279	£ 409	£CALL	£CALL	£CALL
40 MHZ	£ 309	£ 439	£CALL	£CALL	£CALL
50 MHZ	£ 329	£ 459	£CALL	£CALL	£CALL

MONGOOSE

50 MHZ 68030 WITH MMU,
& 68882 FPU

">>>>ACCELERATE<<<<"

Mem. F.P.U.	0 Mb	4 Mb	8 Mb	16 Mb	32 Mb
50 MHZ	£ 379	£ 509	£CALL	£CALL	£CALL

Other D.K.B. products also available:

1202 RAM board + FPU + clock for Amiga 1200	£CALL
4091 SCSI-II board for the Amiga 4000	£299
3128 Memory board for the Amiga 4000 or 3000, (up to 128 Mb.)	£159 (0 Mb.)
Meg-A-Chip 2 Mb. chip RAM upgrade for Amiga 500, 1500 & 2000	£159

Coming soon:

The Talon 24-bit EGS graphics card with 64-bit display chip	£CALL
68060 Super-Fast Amiga 4000 accelerator, "BURN RUBBER.....!"	£CALL

All Prices Include VAT. All Cheques Payable To:

RAMIGA International Ltd., Stablaui Rin, Pentrefoelas, Clwyd LL24 0HT

ALL D.K.B. EUROPE PRODUCTS CARRY A FULL 2 YEAR WARRANTY

VISA and ACCESS accepted.

RAMIGA



International Ltd

RAMIGA
INTERNATIONAL LTD
TEL. NO. 0690 770304
FAX NO. 0690 770266



SEE BOTH THE RAPTOR II AND THE RAPTOR PLUS IN ACTION
ON STAND 32 AT THE WORLD OF AMIGA SHOW

LIGHTWAVE 3D V3.5

UNBUNDLED PAL VERSION

Lightwave 3D is a fully featured 3D graphics & animation system. It's renowned for it's easy to use interface, which gives quick access to a wide range of potent features. Using it's spline-based key-frame animation system you'll easily create amazing animations. Render your work in 16.8 million colours for photographic quality output. Use the powerful Modeler to create your own 3D objects. As the 3D program used in many Hollywood TV & Film studios. This really is the professionals choice

£449

(NOTE: Lightwave 3.5 requires 2Mb chip RAM - Special offer:
Lightwave 3.5 + DKB MegaChip£569

DEKSTATION



**OFFICIAL EUROPEAN
DISTRIBUTORS**

Raptor II

£Call

The Raptor II contains one 133 MHZ RISC processor and comes fully configured as a Windows NT workstation, including 17" monitor, 64Mb RAM & SCSI CD ROM. Includes ScreamerNET & Ethernet adaptor.

Raptor Plus

£Call

The one & only twin RISC processor rendering engine for Lightwave is now available in Europe. At a blistering 266MHZ this will speed up your renders 20 - 30 times. Comes complete with 128Mb RAM, ScreamerNET & Ethernet adaptor.



Prime Image

Passport⁴⁰⁰⁰

NEWTek

VIDEO TOASTER

THE PAL VIDEO TOASTER IS HERE AT LAST!!

By utilising the PRIME IMAGE *Passport⁴⁰⁰⁰* system you can now use Newtek's Video Toaster with it's complete set of software video tools in your PAL video editing environment. Utilising a combination of precision timing codes and specially updated Toaster software (included) this expandable system gives you a true PAL input and output from the Toaster with absolutely no loss in picture quality. Included in the Passport are 4 time-base correctors and two inputs & outputs which are either Y/C or composite.

CALL FOR PRICES - (UK & EUROPEAN DEALER ENQUIRIES WELCOME)

ENLAN-DFS - Ethernet based Peer to Peer Networking for the Amiga	£299.00 (5 user licence)
THE "I" CARD - PCMCIA SANA II Ethernet network card for Amiga 600/1200	£299.00 <small>(Standard 10 Base T - 100 Base T Coming)</small>
IMAGEMASTER R/T - Pro Quality image processing & morphing package	£69.95
PEGGER V2.0 - Automatic JPEG compression & decompression of all your picture files	£59.95

* STOP PRESS - A4000 & A1200 TOWER SYSTEMS AVAILABLE - CALL NOW *

All prices include VAT (unless otherwise stated). All cheques payable to
RAMIGA International Ltd., Stablau 'Rin, Pentrefoelas, Clwyd LL24 0HT.
Visa and Access accepted.

R TG, an acronym for ReTargetable Graphics, was a proposed standard developed by Vione Systems which set out to allow users to plug third-party graphics hardware into their Amiga, thus allowing Amiga software to use the cards display as though it were normal Amiga graphics.

Of course, as is the case with many proposed standards, success usually requires a high degree of co-operation between both software and hardware developers.

It's therefore the job of the party proposing the standard to lay down ground rules so that the software and hardware developers have solid guidelines to work to, thereby avoiding any conflicts and incompatibility problems.

Unfortunately, this RTG standard never quite took off. Thankfully though, whatever ground rules were initially laid down seem to have worked well, and the graphics cards available today work with relatively few problems, providing users with more powerful Amiga graphics.

In general, more powerful graphics means faster screen updates through hardware blitters, 24-bit colour modes (16 million colours) in higher resolutions than Amiga graphics can provide.

However, as with life in general, things aren't quite perfect and there are a few, misbehaved applications which stray too far away from the RTG standard guidelines and thus do not work properly on the cards. When shopping around for RTG boards, it's wise to create a list of software which you want to use with the card so ask the supplier if there are any known problems with that particular software. On the whole though, you should encounter few problems.

Also, check your software's documentation. It may well list a specific range of boards which it will happily take advantage of its present.

It goes without saying that the main use of these cards is to provide a more enhanced graphical environment for applications such as DTP, image processing, rendering and even just as a general accelerator for the relatively slower native graphics system of the Amiga.

EGS 28/24 Spectrum

First in this three card line-up is the EGS 28/24 Spectrum by GVP (the EGS was another standard which didn't quite stick but still works well) coming in at a relatively inexpensive £300. Installation of the card is simple enough, fitting into any spare Zorro slot and automatically sensing whether it's Zorro II or III.

The 28/24 communicates with the CPU over the usual Amiga data bus, unlike its predecessor, the 110/24, which enjoyed the speedy direct access when communicating to the Combo's 32-bit local bus. Its on-board blitter chip runs at 28MHz – again, not as fast as its predecessor but still a respectable pace giving faster screen updates.

Although the 28/24 will most likely become your primary display system, it has its own video controller and its graphics display is completely independent of the Amiga's native screen modes.

However, programs can operate in either display system or in both simultaneously. Therefore, it's possible to construct your system around either a one or two monitor setup.

The Amiga's RGB output can be passed through the board out to a monitor if you want to be able to use a single monitor, both with the Amiga's native screen system as well as the enhanced 28/24 modes. A DB-15 to 15 patch lead is supplied as standard for connecting the Amiga's DB-23 RGB output to the 28/24, so a DB-23 to DB-15 adapter is required.

Although the 28/24 can operate on a

standard RGB monitor, the higher colour/resolution modes will require more expensive multi-frequency monitors, with the extreme resolutions of 1600x1280 needing (even more expensive) monitors with generous horizontal and vertical frequency ranges.

The installation program provides drivers for a number of monitor models, including the Commodore 1950, but strangely, no support for the 1942, which is generally accepted as the most popular low-cost Hi-res Amiga monitor.

Using a simple bi-sync or SVGA monitor should, at best, allow for a 24-bit screen at

800x600. However, most monitors should be capable of handling 24-bit screens at 640x480.

The EGS Workbench driver allows you to open Workbench on the EGS system, allowing any Workbench-based software to be displayed in up to 1600x1280 pixels in 256 colours (monitor permitting). In general, if a piece of software runs in a window on a workbench screen, it should work fine in EGS Workbench emulation.

Performance is very good thanks to the EGS 28MHz blitter hardware – it is similar in function to the Amiga's graphics coprocessor. Also, the 28/24's mouse sprite is a 64x64 four colour hardware sprite used as the custom cursor. Other display boards often use software to draw the mouse, adding extra overhead to the graphics system's performance.

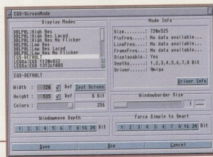
Use of this hardware sprite also negates the need to 'clip' or modify the display to account for mouse movement. All this adds to a rather good improvement in screen updates. Even on an A4000/D40, a 256 colour Workbench screen is noticeably slow on the 28/24's display, but on the EGS system it's very smooth and responsive.

This is ideal for DTP users, who will definitely notice a drastic increase in screen updates when scrolling through large colour documents, and who also benefit from larger work areas.

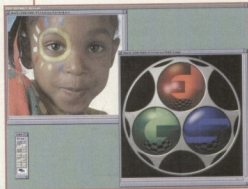
As well as the installation software, which by the way is fairly painless and trouble free to use with the only problems you'll

The big

*Darrens Evans checks out three
contenders in the RTG graphics board's
battle for your wallet's attention*



Inside the EGS screen mode utility. Hugo Amiga screen bashing resolutions at the touch of a button



Spectrum EGS and its accompanying paint package are impressive but will it survive against the speed of Retina and third support for the Picasso

picture



A familiar approach to the EGS screen mode selection. However like everything on the Picasso it's been beautifully integrated into Workbench

encounter being having to guess the correct driver for your monitor if it's not listed by name, you also get EGS Paint, a 24-bit art package.

It's quite a good bit of software too, although it has no alpha channel support and the airbrush leaves a lot to be desired. It takes full advantage of the EGS 28/24's hardware too, allowing you to scroll through a 1.5Mb 24-bit image with the speed you'd expect from scrolling a 16 colour picture.

The dark cloud on the horizon, however, is GVP's uncertain future in the Amiga market. Should the company cease trading, its products may well reappear under a new distributor, but this is by no means certain. You may therefore end up with a very good graphics board but product support and updates may not be available.

A well proven quality product in the form of TVpaint junior - shipped as standard with ever single Picasso sold. An impressive combination of 24 bit elegance and excellent freebie utilities



Picasso II

The next offering is the Picasso II board from Village Tronic. It's a full length card and has dual monitor ports and a pass-through cable to make life easy for one monitor owners.

The installation software is a breeze to use and this ease-of-use continues through to the actual setting up of the screen modes and monitor type. In fact, it's the most friendly and easiest to use of the bunch.

After the installation has finished, a quick visit to the Amiga's standard ScreenMode utility in the preferences drawer reveals a host of new Picasso specific modes. Simply choose a screen mode and off you go.

SELECTING

When you run any software under a Picasso mode for the first time, a requester appears asking if you want to select a particular Picasso mode.

Selecting yes will bring up another selector with a list of screen modes to choose from. Select a mode and Picasso makes a note in a list. When the application is executed at a later date, it automatically uses the mode chosen.

Performance wise, there's not a great deal of difference between the Picasso II and the EGS Spectrum, though the Picasso does seem to have the slight edge. You can also be sure of good product support and updates from Village Tronic, which doesn't seem to be the case with GVP's currently uncertain future.

Picasso's greatest strength lies in its superior support from third-party software over the other boards. This includes applications which have direct support for the Picasso around, such as Lightwave, Forge and TV Paint 2 (TV Paint Junior is supported by Picasso).

There are also a great deal of graphics software packages which support Picasso as a frame buffer. Widespread support from

Picasso's greatest strength lies in its superior support from third-party software over the other boards

software developers is probably the main goal of all RTG board manufacturers and Village Tronic seems to be doing a good job, either directly, by talking to software developers, or indirectly, by merely having such an easy to use and installable card with great performance.

UTILITIES

As with the other graphics cards, Picasso comes with many software utilities such as picture viewers, monitor utilities and more.

The included TV Paint Junior is an art package with some good features. So, once you have your Picasso installed, you can start admiring and creating your own pictures in glorious 24-bit colour.

With such support from third-party developers, combined with its ease of use and great performance, the Picasso II, in my mind, is definitely the best buy of this bunch.

SYSTEM ESSENTIALS

RED = Essential BLACK = Recommended

1 Mb Chip RAM	2 Mb Fast RAM	Hard drive
A2000, A3000 or A4000		
2 Multiscan monitors	4 Mb Fast RAM	

The bottom line

Product: EGS 28/24 Spectrum
Supplier: Silica, Silica House,
Hatherley Road, Sidcup,
Kent DA14 4DX
Phone: 061-309 1111
Price: £299

SYSTEM ESSENTIALS

RED = Essential BLACK = Recommended

1 Mb Chip RAM	2 Mb Fast RAM	Hard drive
A2000, A3000 or A4000		
2 Multiscan monitors	4 Mb Fast RAM	

The bottom line

Product: Picasso II
Supplier: Bittersoft, 40 Colley Hill,
Bradwell, Milton Keynes, Bucks
MK13 9DB
Phone: 0908 220196
Price: £299.95

Retina BLT 23

This graphics card is from MacroSystem. Unlike the other two cards reviewed here, the Retina does not feature dual monitor ports. There were, however, two video output ports present, one composite and the other Y/C, which was interesting. Unfortunately, to make use of these, a separately available PAL encoder card is required, which fits to the Retina board.

Compared to the almost transparent way the Spectrum and Picasso boards handle the retargeting of graphics, the Retina was a little more involved.

Firstly, you select your monitor type using the RetinaScreenMode program. Once selected, a list of screen 'groups' appears. These groups can be expanded to show the various screen modes contained within that group.

RetinaEmu is the next program that's run and is also the core of the Retina system. Every time you execute a program which hasn't been used under Retina before, it makes an entry into a list.

PROGRAMS

It is then possible to select the new program entry and choose a Retina screen mode to run it in. In real use this works very well and relatively few programs complain - barring the real stubborn programs which use custom graphical interfaces instead of 'proper' intuition screens. Eventually, and hopefully, all your favourite software is suitably noted by Retina and ready to use instantly.

For the really fussy among you who want to squeeze every last pixel out of your monitor, there is a monitor setup utility called, strangely enough, DefineMonitor. With this you can fool around with frequencies, pixel clock rates and colour depths so that you can tweak additional screen modes to add to the already large list supplied as standard.

Retina comes with a host of tools and utilities. MakeRACE, for example, is the rather cryptic name for a utility which is used to create 8, 16 or 24-bit animations, automatically dithering frames down to the appropriate number of colours using the Floyd-Steinberg method.

Once an animation has been created, you can also add a soundtrack to it. The sound format can be in 6SVX, or MacroSystem's

When looking at a graphics card, keep in mind these few points

1. Think about the software you will be running with your shiny new graphics card. Although, in general, compatibility is very good, there are some applications which will not work with the enhanced screen modes. You should particularly check the manuals of any graphics software you have - you may find it directly supports a particular graphics card.
2. Make certain you know what bus type the card will work with. You don't want to buy a card to plug into your Zorro II slot, only to find it's Zorro III-only do you? Most good graphics cards are compatible with both slot types and automatically sense which slot they're in, adjusting themselves accordingly, so look for this feature.
3. Take into account whether the board has a pass through port and cable. This makes life much easier for single monitor systems. If an application doesn't like your board's screen modes, you can bypass the card through the port - with no need to keep swapping the monitor plug between card and standard Amiga video port.
4. Remember, high resolutions and colour depth (number of colours on screen) require flexible monitors with generous frequencies. A standard 1942 monitor can handle a maximum of 800 X 600 resolution in 24-bits. So, if you are looking to buy a monitor with your card, make sure it can handle the resolution you require.



The stylish face of XPaint. Arguably not the simplest point package in the world but the underlying power is nevertheless pretty impressive

own Toccata or MaestroPro formats for 16-bit quality.

To view the animation, two more programs are required. PlayRACE plays back the animation from Ram and CopyRACE does the same, but uses the much slower hard disk.

In order to view pictures in all those juicy high resolution multi-coloured screen modes that Retina gives you, you are going to need viewer software.

This can be done via a standalone viewer which handles formats such as BMP, JPEG, VLab and all the varieties of IFF.

VIEWING

To view a picture, it's a simple matter of dropping a picture file icon onto its Appwindow interface. It's also possible to run it from the Shell and can thus be incorporated into nifty programs like Directory Opus. There are also dedicated viewer files supplied for ADPro and ImageMaster users.

Once you have installed and set up the Retina software and screen modes, the Retina's Workbench emulation is impressively fast. Out of the three cards under scrutiny here it is the fastest - hardly surprising considering its 4Mb on-board Ram and an operating speed of 110MHz. The 256 colour screens operate like four colour ones and windows zap open with an ensuing mad rush of rapidly appearing icons - this is how life on all Amigas should be.

So, performance wise, there's nothing to

complain about. However, a few areas in the overall Retina package need to be cleaned up and generally polished. First of all, a more intuitive and less involved method of setting up the modes would be helpful in bringing it closer to the ease of use provided by EGS Spectrum and Picasso. Also, there are quite a number of German readme files in the Retina drawer, which don't seem to have an English equivalent.

DAMAGE

The Retina card itself is not a full length card either, and as such is prone to wobble and hence possible damage when putting it into the old Zorro III slot. Notice I specified Zorro III, which pretty much tells you that this Retina is a Zorro III only card.

The Amiga's slot guides are there for a reason and all Zorro cards should really be full length. And for the proverbial icing on the cake, dual monitor sockets and appropriate pass-through cable would also make life easier for single monitor users who come across Retina's unfriendly software.

SYSTEM ESSENTIALS

RED = Essential BLACK = Recommended

1 Mb 2 Mb Chip Ram Fast Ram Hard drive A3000 or A4000

2 Multiscan monitors 4 Mb Fast RAM

The bottom line

Product: Retina BLT 23
Supplier: MacroSystem
Tel: 0896 870583
Price: 1Mb £412
4Mb £540

The classic MacroSystems approach of unrivalled user configurability. The question is does such a degree of control make life harder than it needs to be?

Weird Science

CD ROMS

AVAILABLE FROM ALL GOOD CD STOCKISTS

Multimedia Toolkit CD

CONTENTS

OVER 1000 FILES
900 24 BIT IMAGES
ALSO IN B&W & H&H
700 COLOUR CLIP ART
220 MONO CLIP ART
11 SCALABLE CLIPS
700 MUSIC SAMPLES
2000 SAMPLES



PC COMPATIBLE IN
ROMING PUBLISHING

ONLY £19.95

Fonts CD

A complete CD dedicated to Fonts for the Amiga range of computers. Also PC compatible. The following formats are catered for, Adobe, CG Fonts, Coloured, Postscript, Prodraw, IFF, PCX, Pagestream, TrueType, Calamus and GDOS. Adding up to the most complete CD of Fonts for the Amiga ever. In total over 18,000 files in 900 directories. All ready to use and easily accessible in type directories.

CLIP ART CD

Over 5500 files of Clip Art for Amigas and PCs. The most comprehensive collection of Clip Art ever for the Amiga range of computers. In total over 26,000 files. The following formats are catered for, B&W Iff Bitmap, Coloured Iff Bitmap, Proclips, EPS, Pagestream, Pagestream, IMG, Corel Draw and coloured brushes for DPaint. All ready to use and easily accessible in subject directories.



CONTENTS OF CLIPART CD

15,000 + Mono Bitmap & 1300 Coloured
1500 EPS, 6000 IMG, 93 Pagestream
290 Pagestream, 86 Proclips, 120 Corel
98 Printshop and 640 Brushes for DPaint

CONTENTS OF FONTS CD

2000+ Adobe & CG Fonts with PS Fonts
500 Bitmap, 190 Coloured, 240 Iff
139 Pagestream, 24 Prodraw, 500 TrueType
132 PCX, 300 GDOS & 230 Calamus

AMIGA & PC Compatible

Clip Art CD &
Fonts CD

Only £9.99 each

Amos CD

THE OFFICIAL AMOS PD
LIBRARY ON COMPACT DISC

The Official Amos PD Library is the largest source of Amos related source code and programs in the world today. The library is run by Len & Anne Tucker and maintained by European Software, the publishers of Amos and Amos Pro. This compact disc contains the entire library from disk 1 to 620, each one arranged in it's own directory and catalogued. The disc contains in excess of 10,000 files with over 3000 Amos source code files, 100 video files, 200 Clipart files, 800 samples, numerous music banks and several extensions to Amos & Amos Pro. Workbench is also included in one Panet and Sernet to allow transfer of the contents across a network, from both the CDTV and the CD³². This CD is truly a treasure to the thousands following that Amos and Amos Pro has achieved in the past few years and represents thousands of man hours of writing Amos code which will prove to be an invaluable source of help and advice to the Amos user. The Amos PD Library contains many games and utilities which will prove interesting to the Amos user and non-Amos user alike. Imagine the entire contents of a PD Library on one CD. All this for only

£19.95



Compatible with all
Amigas



Network CD

SIMPLE NETWORKING TOOLS FOR AMIGA CD

The Network CD sets up a link between a CDTV or CD32 and any other Amiga. The CD32 or CDTV acts as a remote drive for your Amiga, allowing access to the vast pool of data available on CD Rom. The CD32 cable also available uses the AUX socket of the CD32 and comes complete with a keyboard pass through, thus still maintaining the ability to connect FMV or SXI add-ons. Network CD sets up a Workbench environment and disables the function, allowing the CD to be changed and access to any other ISO9660

CONTENTS

Panet & Sernet
NCom & Term
Twin Express
Fred Fish 800 to 975
Amos PD 478 to 603
74 Utility Disks
PhotoCD Conversion
500 Images in 256 cols.

Network CD £14.99

CD³² Cable £19.95

Panet Cable £9.99



SOUNDS TERRIFIC

A double CD pack containing over 1.2 Gigabytes of musical and sounds data for the Amiga and IBM PC computers. It all adds up to the most complete collection of sounds on any platform and will form vital part of any musicians CD collection.

CONTENTS OF Sounds Terrific

4600 Modules, 14,000 Amiga Samples
568 Sinit Scores & 4500 Instruments
302 Octamed/Mod Modules, 1190 Multi Files
1552 Voc & 642 Way Samples
Utilities for both Amiga & IBM PC
Amiga and PC Compatible

Double CD £19.95

Also Available

Aminal 4 - £19.95

Aminal 4 - £19.95 (NEW)

LSD CD 1 - £19.95 (NEW)

Melting Pearls - £19.95 (NEW)

ORDER HOTLINE

0116 233 0632

Access & Visa Welcome

New Release



£19.95

Assassins CD for the CD³²

650 + games for the CD³², CDTV & Amiga CD. Ready to run from a simple MENU system. 100% CD³² compatible. Also includes Assassins floppy disks 1 to 200 archived easily copied back to floppy. Workbench, Panet & Sernet included.

Word Science

Leicester

Fax: 0116 236 4932

Rowlandson Close
Leicester
Leics. LE4 2SE

TRADE ENQUIRIES WELCOME

public



sector

*A bumper-sized helping of affordable
but impressive software comes under*

Dave Cusick's critical eye

The festive season may have seemingly exhausted your finances, but that's no reason to deny yourself decent software. Without breaking the bank, you could very soon be enjoying one or more of the following offerings...

Dynamite Warriors v2.0

Programmed by: The Peace Brothers
Available from: OnLine PD
Disk No: OF74 (75p + 75p P&P)

First impressions aren't too good with Dynamite Warriors; the opening screens combine a smattering of expletives with praise for, erm, use of illegal substances. Still, a couple of mouse clicks and this fairly pathetic example of some self-important coders trying to appear interesting gives way to a curious and, surprisingly, reasonably decent game.

Between one and five players can



With the object simply to be the last man still alive, Dynamite Warriors is frantic fun for up to five players



Cunning tactics in Dynamite Warriors: stand still and let the computer warriors fight among themselves

My Mamma was a Vampire AGA

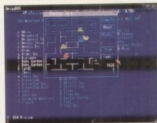
Programmed by: Duplo Productions
Available from: OnLine PD
Disk Nos OX100 A/B (75p + 75p P&P)

It may be puzzlingly named, but this demo is slickly presented and features some nice effects. It has the obligatory zooming mandibrot sets but to be different, replaces rotating Julia sets with rotating pictures of Julia Roberts.

There are also fluffy shapes which swirl around the screen in a dreamy way and an effective fire effect has small flames dancing at the bottom of the screen. The on-screen events are nicely synchronised with the predictable but bearable tune. In short, this isn't



My Mamma Was a Vampire features an impressive variety of effects such as this cloud-like sequence



Play Pacman on your Workbench screen with MiniPac, one of the many fine games on MegaDisk 1

participate, with any number of these being computer controlled if you don't have a bunch of like-minded individuals to hand. Each controls a colourful bloke wandering around a maze in what looks like a space-suit. Their back pockets seem to be stuffed full of bombs which can be planted anywhere on the screen. After a five second countdown these promptly explode, destroying nearby blocks of the maze and any unfortunate opponent who happens to be in the immediate vicinity. Killing all your opponents is the ultimate objective.

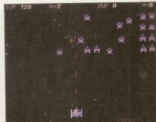
There are plenty of bonuses which can be picked up, although they are not all beneficial – some, for instance, invert sideways joystick movements so that when you push left your character moves right. The action can be quite frenetic at times, although things can slow down when a great deal is happening on screen.

While you're busy scrambling around trying to avoid explosions, in total contrast, calming music is warbling away in the background. This is the sort of game that could prove quite enjoyable if you've got company, but don't expect it to provide too much one-player entertainment.

Mega Disk 1

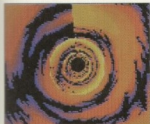
Programmed by: Various
Available from: Professional PD
Disk No. MG01

Professional PD claim that its new Mega Disk series will represent exceptional value, and it must be said that this first



Relive early eighties arcade action with MegaDisk 1's Galactoid

ART of the MONTH



The tunnel effect from *My Mamma Was A Vampire*. Static screens can't really do this great sequence justice

be something you'll dig out of the diskbox in the future to show some PC owner what your machine is capable of. *My Mamma Was A Vampire* is definitely worth a look.

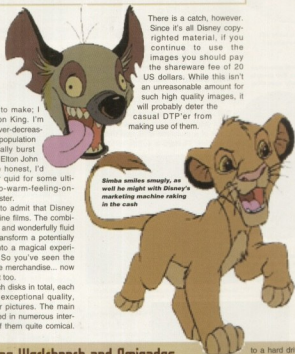
Lion King ClipArt

Produced by: Disney
Available from:
KEW-It software
Disk No. V1126

I have a confession to make: I haven't seen *The Lion King*. I'm therefore among an ever-decreasing proportion of the population who doesn't periodically burst into quick choruses of Elton John penned ditties. I'll be honest, I'd rather stomp up four quid for some ultimately pointless, no-warm-feeling-on-leaving action blockbuster.

That said, I've got to admit that Disney makes some darned fine films. The combination of catchy tunes and wonderfully fluid animation generally transform a potentially tiresome fairy story into a magical experience for everybody. So you've seen the film, you've bought the merchandise... now you can use the clipart too.

There are three such disks in total, each containing plenty of exceptional quality, high resolution colour pictures. The main characters are depicted in numerous interesting poses, many of them quite comical.



Simba smiles smugly, as well he might with Disney's marketing machine raking in the cash

at all bad. The real highlight comes in the second part of the demo. Following a remixed classical tune which I ought to know the composer of but don't, the viewer is launched on a technicolour journey through a spiralling tunnel. Again, it's not a new effect but it's done so well that it still impresses. This is followed by a phong-shaded rotating cube, the faces of which have colourful fractal patterns on them. Even on a machine without Fast Memory, the effect is so smooth that you can't fail to like it.

Perhaps more than most demos, this could

There is a catch, however. Since it's all Disney copyrighted material, if you continue to use the images you should pay the shareware fee of 20 US dollars. While this isn't an unreasonable amount for such high quality images, it will probably deter the casual DTP'er from making use of them.

Introducing Workbench and Amigados

Programmed by: K Winspear
Available from: F1 Licenseware
Disk No. F1-051 (£4.99)

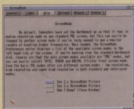
Booting up a Workbench 2 or 3 machine with the first of these two disks in the drive will bring up what looks like a pretty standard Workbench screen. However, click on a couple of the icons in the disk contents window and you'll soon realise that this isn't quite the case.

Each icon actually represents a document file on the drawer, command, commodity or whatever it depicts, so clicking on the Multiview icon doesn't run the program - instead it presents you with an Amigaguide file explaining the purpose of the program and exactly how to use it. Items selected from the pull-down menus also lead to helpful instruction files.

The second disk imitates the normal Workbench Extras disk and it's here that you'll find full explanations of the functions of Workbench Tools and Commodities. Thankfully, the often dreaded Amigados is also given a thorough explanation with each command covered in turn.

Also on this disk is a program called OnLineHelp. Once this has been installed

to a hard drive (a case of following the on-screen instructions), assistance is available at any time from the Workbench by simply hitting the Help key. This guide is sure to be an immense help for the inexperienced Amiga owner and the creator should be commended for producing an easy-to-operate and extremely understandable guide.



Having worries with your windows or difficulties with your disk operations? Help is at hand from the Introduction to Workbench and Amigados

Calling all PD libraries...

...and individuals with absolutely any program, whatever its purpose, which you consider worthy of review. Whether it will be freely distributable public domain, shareware or licenseware, if it's of sufficient quality to merit coverage then stick it in a jiffy bag or padded envelope and send it in with all haste. I promise I'll at least look at your work. Please clearly label the disk, and include a cover letter supplying a description of the disk contents and some basic instructions. The address to send the disks to is:

Dave Cusick
PD submissions
Amiga Computing
Media House
Arlington Park
Macclesfield SK10 4NP

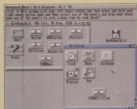
Off You Go

Programmed by: Gina Mears
Available from: F1 Licenseware
Disk No. F1-054 (£3.99)

The highlight of this four-game kiddies disk is undoubtedly *Mighty Mind*, a colourful and highly absorbing version of the classic peg-game Mastermind. For the uninitiated, four coloured pegs are arranged in a sequence and the player must try to guess



Brain-bending fun with *Mighty Mind*



Double-click on an icon and access the relevant help file with the Introduction to Workbench and Amigados



It might be aimed at children, but some of the teasers Word Hop comes up with can be quite hard to guess

the code. Several attempts are allowed, and each time the player is told how many pegs are the correct colour but in the wrong position and how many are the correct colour in the correct position. It probably sounds confusing, but it's actually very good fun.

The title game itself, Off You Go, takes the form of a slightly tedious "board game" affair which, while being simple enough to be understood by its target audience of five-year olds, is perhaps not interesting enough to keep them occupied for long.

Word Hop is essentially Hangman, but instead of trying to save some poor soul from being dangled from the gallows, the object here is to get a bug to a boat before a frog consumes him. Colourful graphics help to ensure that this one will entertain youngsters for a while.

Finally, Find It uses the Amiga only as the basis for a game. A grid of letters on the screen is mixed around and then a timer starts counting. The idea is that players write down all the words they can find before the time runs out.

This is an interesting little combination of educational titles which, while appealing to youngsters especially, could entertain adults for some time too.

public sector

Smooth animation makes Evil Insects visually appealing



Innovative it may not be, but Evil Insects is a decent blast for a few minutes

Mapmaker 2000 Demo

Programmed by: David Smith
Available from: KEW-IT software
Disk No. D1060

This is a good idea; a shareware program for would-be cartographers everywhere. Mapmaker 2000 allows you to design maps or plans as if you were creating a picture in DPaint, using lines and fills. Here, however, there are added functions. With Mapmaker it is possible to zoom in and out of the map, alter the scale, calculate distances between points, and so on.

A selection of useful symbols are available as standard, such as churches, golf courses and youth hostels. If these aren't sufficient, it is also possible to create up to 12 user-defined symbols.

Mapmaker's obvious use is in creating



The user-friendly Mapmaker includes plenty of example files to demonstrate what can be achieved

maps for local societies, or for rambling routes or whatever. Having said this, it could potentially be used as a basic CAD package so that garden plans or house floorplans could be produced. With commercial alternatives often expensive, the £15 shareware fee seems quite

Evil Insects AGA

Programmed by: Matthijs Hollemans
Available from: A1200 Only PD
Disk No. 184 (70p + 50p P&P)

This is a polished shoot-'em-up which at first glance could be mistaken for any one of a multitude of Space Invaders clones. There's a subtle difference



here though, in that you don't actually aim to hit the baddies directly. Instead, you direct the athletic hero's gun towards a stone ceiling above them. When the gun is fired, stone comes loose and falls, killing any Evil Insects which happen to be between them and the ground.

And that, in a nutshell, is the game. The graphics are decent enough and all the sprites move smoothly, but it is hard to see why this should be AGA-only since there's nothing especially stunning about the visuals – there appears to be only one backdrop.

It's not just the graphics which are pretty much the same throughout. To be honest, there is little variety in gameplay between levels. Against all the odds though, Evil Insects still manages to be entertaining for some time. It's strangely absorbing and addictive, despite the obvious lack of depth.

GRIME

Programmed by: Adrian Jenkins
Available from: Shoah PD
Disk No. U0001 (£1.50)

When programming multi-level games such as platformers, software writers tend to employ map editors to make their task easier. The process involves using an ordinary paint package to design blocks with which the landscape can be built up, then



Load a screen of blocks into Grime...

Amiga Music

Programmed by: Various
Available from: Roberta Smith DTP
Disk No. MUS104 (90p + 50p P&P)

This disk features an interesting collection of five programs with totally different purposes.

Composer is a score-based music composition program created in Amos. It does boast some decent features such as being able to handle ornaments and having a list of selectable speed and dynamics directions, but to be honest I can't see it appealing to many musicians. This is because, rather than making use of sound samples so that the output is tuneful and realistic, Composer opts for the internal sound chip output of the Amiga and the end result is that you'd think you were listening to a spectrum warbling away. It's a shame that such a potentially useful program is therefore rendered pointless.

DSound is an excellent little program which appeared on an Amiga Computing coverdisk a few months back. It resides in the C directory on your hard drive and is able to play samples of unlimited size direct from the

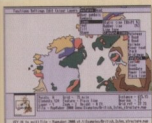


The user-friendly Composer would be worthwhile if it were capable of producing tuneful sounds

disk, using very little memory.

Also included is Hunter III. This is a sample-ripper, used to attempt to grab sound samples from programs and save them to disk. Superplay is a module player which, for me, is rather too reliant on its own bulky Superplay.lib file to outdo MultiPlayer. Finally, Inlaymaker is a useful if somewhat basic and restrictive cassette inlay designer which is an adequate substitute for those without access to a DTP program.

While this is hardly an essential collection of music utilities, DSound and Hunter III are worthwhile additions to any software library.



Cascading menus are used as part of MapMaker's simple and effective interface

reasonable. Registering will buy you a version of Mapmaker which can save and print, since both these options are disabled in this otherwise fully-functional demo.

It's not without its small bugs, but this is a promising effort which could prove useful to a great many people.



...and then assemble them to form your very own platform game level. Now all that's needed is a fair dollop of programming ability

using the map editor to assemble these.

GRIME is an easy-to-use map editor, and although this demo version has a few functions disabled it nevertheless gives a good idea of exactly what to expect if you pay the £10 registration fee for the full version.

The interface is well thought out, meaning that getting to grips with operations is

straightforward. Clicking the right mouse button brings up the individual blocks, one of which can then be selected with the left button. Press the right button again and the map screen appears. The selected block can then be placed as many times as required using the left button. Additionally, sections of the map can be cut and pasted making editing a fairly quick and painless exercise.

The full version of the program is capable of saving maps either in GRIME's own format or as raw data in words or bytes. Explanations of the file formats are given in the helpful documentation.

GRIME could be the answer to many programmers' prayers. It provides a simple and effective editor for maps which might previously have been cobbled together using hastily home-written editors with much less pleasant interfaces.

Fishy Fishy

Programmed by: Martyn Crabtree
Available from: Martyn Crabtree (£2)

I generally like original games, and they don't really come much more original than this. On top of that, I simply could not miss out on such an obvious opportunity for a barrage of pathetic piscine puns.

Perhaps best described as an eat-'em-up,



It's the undersea equivalent of David and Goliath, as tiny goldfish takes on killer shark



The most piscine-packed game ever, Fishy Fishy

Fishy Fishy is a game in which your sole aim is to devour as many marine beasts as possible. It's only possible to eat things smaller than yourself, and since you're but a shrimp of a fish to begin with, that rules out practically everything except crabs. Consume a few of your fishy friends and you'll grow, enabling you to gobble more.

It's not a good idea to stray into the path of anything bigger than yourself, as this causes your energy level to drop. When you've demolished stuffing yourself with everything edible in the immediate vicinity, you can progress to the next stage by biting the tail of the end-of-level shark.

Fishy Fishy is a nice idea, albeit it's not perfect. At times, especially when you're still on the small side, trying to dodge larger marine life can be practically impossible because they move so fast. The sharks are annoying too, causing considerable loss of energy for your poor fishy when they turn instantaneously. Without wanting to carp on about such points, they do detract a little from the overall playability.

Nevertheless, for now squid it's not at all bad and hopefully in the future we'll be herring more from Mr Crabtree.

Lay your hands on me

Online PD

1 The Cloisters, Halsall Lane, Formby,
Liverpool L37 3PX
(Tel: 01704 834335)

Professional PD

28a Woodland Rise West, Sunway
Park, Sheringham, Norfolk NR26 8PF
(Tel: 0263 824396)

F1 Licenceware

31 Wellington Road, Exeter, Devon
EX2 9DU
(Tel: 0392 493580)

Roberts Smith DTP

190 Falloden Way, Hampstead Garden
Suburb, London NW11 6JE
(Tel: 081-455 1626)

A1200 Only PD

B J Cowdall, 23 Barn Way,
Cirencester, Gloucestershire GL7 2LY

Shoah PD

38 Oxstalls Way, Longlevens,
Gloucester GL12 9JQ
(Tel: 0452 382651)

KEW-II Software

PO Box 672, South Croydon, Surrey
CR2 9YS
(Tel: 081-657 1617)

Martyn Crabtree

49 Marlowe Road, Herringthorpe,
Rotherham, South Yorkshire S65 2JQ

Giddy 2

Programmed by: P Ruston
Available from: F1 Licenceware
Disk No. F1-056 (£3.99)

Among the greatest successes of those champions of the cheap commercial game, Codemasters, was the Dizzy series. Dizzy was an egg whose task it was to roam a cartoon landscape, overcoming obstacles by using objects collected along the way. So popular a character was he that the numerous games starring him shifted by the truckload.

"What's the relevance?" you may ask. The answer is that Giddy is an unashamed rip-off of the Dizzy games, in places boasting practically identical gameplay and some very similar graphics. The author admits to being heavily influenced by Dizzy, but this is certainly not a bad thing.

The puzzles all have logical solutions - for instance, you can get past the slug with the help of some salt. This makes for gameplay which is challenging but not frustrating, and as a consequence it is perfectly possible to become immersed in Giddy 2 for hours. This is a real gem which will appeal to gamers both young and old. Were I not more restrained I might be tempted to say it's egcellent.



Colourful fun for all in unashamed Dizzy clone, Giddy 2

COLOUR KITS for MONO PRINTERS

Ever wished you bought a colour printer instead of a mono one? Wouldn't it be nice to print out pictures in colour? Now you can with Amiga 'FlexiColor Kit'. Each Amiga FlexiColor kit comes complete with everything you need to print in colour, including superb software. The colour kit is simple to use, the ribbons fit exactly the same way as your black ribbons so it will not affect your guarantee. Also on all

models listed below paper alignment is automatic, you do not have to manually align. PRINTS AS GOOD AS COLOUR PRINTER. If your printer is not listed below please phone. Amiga FlexiColor kits for Star LC30, LC20, all Star 24 Pin, Panasonic 1080/91/1123/1124, Epson P380, P300, LC100, LC200 etc. Canon L302D. Please note colour kits come complete with coloured ribbons. COMPLETE KIT £99.95

FLEXIDUMP 3

**NO MORE BANDING!
NO MORE WHITE LINES!**

Yes it's true the new Flexi 3 will remove banding and white lines from dot matrix & bubblejet printers. Now you can have desktop quality on dot matrix printers. Other new features include:-

- An extended range of special Dithering Patterns.
- User selectable level of Anti-Aliasing to remove those jagged edges and smooth.
- Compatible with the new screen modes.
- Desktop 300C/300C users can now have a colour picture with true black - the colour results with this new version will astound you.
- Suitable for Citizen, Epson, Hewlett Packard, NEC, Panasonic, Seiko, Star and just about any dot matrix or inkjet/bubblejet/laserjet printer.

STILL ONLY £39.95

**GOT AN OLD VERSION OF FLEXIDUMP?
THEN UPGRADE FOR ONLY £14.95**

T-SHIRT PRINTING RIBBONS

PRINT ON NORMAL PAPER OR ON T-SHIRT	
4 Colour Citizen Swift	£29.95
4 Colour Citizen Swift (Reload)	£14.95
4 Colour Star LC20	£14.95
4 Colour Star LC200 9 Pin (Reload)	£29.95
4 Colour Star LC200 24 Pin	£12.95
4 Colour Star 24 Pin (Reload)	£29.95
1 Colour Star LC10	£11.95
1 Colour Star LC200 9 Pin	£11.95
1 Colour Star 24 Pin	£11.95
1 Colour Epson P380/LQ400/M300	£11.95
1 Colour Epson L300	£11.95
1 Colour Epson FX100	£11.95
1 Colour Panasonic KCP 1080	£11.95
Heat transfer Pens 5 large red/orange/yellow/green/	£14.95 a set
blue. Large pens have a marker size nib	
Heat transfer Pens 5 small red/orange/yellow/green/	£12.95 a set
blue. Small pens have a fine nib	

ALL PRICES INCLUDE VAT AND CARRIAGE

BLACK PRINTER RIBBONS

Don't throw away your plastic printer ribbon cases when the ribbon wears out just take the top off, take out the old ribbon and reload it with a new one. Black reloads from as little as 99p each.

SPECIAL RE-INK

For Panasonic Printers, Star LC200 9 Pin, Epson LQ100, C60, 182/300. Black bottle will re-ink 100+ ribbons. £9.95

COLOUR PRINTER RIBBONS

Don't throw away your plastic printer ribbon cases when the ribbon wears out. Just take the top off, take out the old ribbon and reload it with a new one. It's simple. Full instructions supplied.

Reloads into:-

Star LC200 9 Pin	4 Colour (Normal Ink)	1 Reload - £5.99	5 Reloads - £29.95
Star LC200 9 Pin	4 Colour (Normal Ink)	1 Reload - £6.99	5 Reloads - £29.95
Citizen Swift	4 Colour (Normal Ink)	1 Reload - £6.99	5 Reloads - £29.95
AIC etc.	1 Reload - £6.99	5 Reloads - £29.95	
Panasonic 4 Colour (Normal Ink)	1 Reload - £6.99	5 Reloads - £29.95	
Seiko 50 4 Colour (Normal Ink)	1 Reload - £6.99	5 Reloads - £29.95	

ink ribbons also available in Gold, Silver, Magenta, Orange, Purple, Brown, Green, Blue, Red for a wide range of printers.

HP DESKJET/CANON BUBBLEJET REFILLS

CARE THREE PACK will refill HP1100A Cartridge 3 times. The Canon RC-11/5040 Cartridge 3 times. These Pack available in Yellow, Magenta, Cyan, Red, Green, Brown, Purple, Black. £24.95 each.

TIS-COLOUR PACK 3 Yellow, 3 Magenta, 3 Cyan refill £27.85. available for Bubblejet and Deskjet

CARE 50 PACK will refill HP5100A Cartridge 6 times. The HP5100A High Capacity 3 times, The Canon RC-11 Cartridge 6 times.

Please note when ordering a BLACK REFILL ONLY £24.95. GOT A BLOCKED NOZZLE? DON'T THROW AWAY YOUR CARTRIDGE - NEW 'INK MAGIC' PRINT HEAD RECOVERY FLUID. 100ml BOTTLE £5.95

HiQ Limited

Tel +44 (0)81 909 2092 Fax +44 (0)81 909 3885

!! New Year Hard Drive Sale !!

HiQ are offering Bare Hard Drives at unbeatable prices in 2.5" and 3.5" IDE and SCSI. Please call for latest prices on these and other drives by phone or fax.

420mb - £179.95

A1200 Cable Pack £10.00, A1200 200w Power and Cable Pack £70, P&P £6

!!! Free fitting for all personal callers !!!

A1200 SCSI Systems

Please call for pricing on our range of SCSI peripherals for use with PCMCIA SCSI interface. All systems cased with power supply and do not void warranty.

For power users ask for our:-

FOUR DRIVE TOWER CASE

Only £99.95

Price only with supply of Drive

All Prices include Vat

HiQ Ltd, 176 Kenton Lane, Harrow, Middx, HA3 8SU.

Fax +44 (0)81 909 3885

Tel +44 (0)81 909 2092

IntOS stands for Intuition Operating System – a slightly grand title – which provides the AMOS programmer with exactly that, a method of creating system legal Intuition-based programs. IntOS was written for OTM by Matthew Warren, a name I've certainly seen around the Amos scene, possibly a PD coder for the Amos PD Library. Who knows? He's done a fine job, anyway.

While it is not actually the Intuition extension we would have wanted, it's the next best thing. It is built around a custom library called IntOS.CustLib which enables you to access the Intuition system directly.

Basically it is composed of a bunch of PROCs which call the custom library, which in turn gives you access to Intuition. This is good news in one way, and bad in another. The program doesn't take up any of the extension slots on the config program, but it does take a little time to work, and none of the commands I tried opened a window instantly in the same way as perhaps a C program would.

The system is installed by copying the library into your libs directory, and making a directory called 'IntOS_Routines'. These are in fact Amos programs which can be merged with your Amos code. In effect, your program runs as a subroutine of the IntOS routine.

COMPILING

You can delete functions which are not used in the program, which means you can sort of optimise the code before compilation. Compiling? Yes, as with all other Amos programs you can compile your code, so writing apps which look like machine code now looks even easier. As I said before, the speed isn't really there but hey, this is Amos, not machine code.

The system isn't perfect, especially as you are calling Intuition routines without checking the system first to see if what you are asking is currently legal – that is to say, if there is a window open already the program is unable to open a window. This is tricky, as you have to write a routine to check the state of the Workbench first. Oh, by the way, don't set Amos to close your Workbench when running Amos as this can also cause problems.

There are a lot of example programs in the excellent manual. For example, here is

Welcome to IntOS

*Phil South greets the New Year
with a smile and an Intuition
interface for all flavours of Amos*

a simple "open a window" example:

```
Set Buffer 8
Break Off
Amos To Back
GoSub _INTOS_INIT

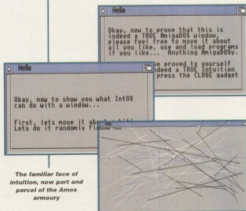
IN_WL_TO_SCREEN_00
IN_WINDOW [0,160,12,320,188,81000,"Hello",-1]
IN_PRINT["Welcome Computing is King of the Hill"]
IN_PRINT["and we've got IntOS, too"]
IN_PRINT[" "]
IN_PRINT["Press Left Mouse Button (LMB)"]
IN_WAIT_BAT
.
.
_CLOSE_INTOS
Amos To Front
Edit

-----
_INTOS_INIT:
Gosub _INTOS_CONV(13)
Global _INTOS_MOUSE,_INTOS_LOCAL,_INTOS_SEMA
Global _INTOS_CONV
Repeat
_WAIT_INTOS
Until ParamTrue
Return

/*--IntOS System Procedure S--*/

Procedure _PEEK_S["_INTOS",_INTOS12]
Procedure _INTOS_SCREEN
Procedure _INTOS_SCREEN
Procedure _INTOS_SCREEN
Procedure _CLOSE_INTOS
Procedure _IN_TURBO["_INTOS09"]
Procedure _INTOS_ERROR_REPORT

Procedure IN_WL_TO_SCREEN["_INTOS02"]
Procedure IN_WAIT_BAT
Procedure IN_PRINT["_INTOS08"]
Procedure
IN_WINDOW["_INTOS01","_INTOS12","_INTOS13","_INTOS14",
_INTOS15,_INTOS09,_INTOS16]
```



program while IntOS is running, as the program won't be able to find its way back to Amos.

This is common practice with Amos programs which use the Amiga system from within Amos, and it's something you're lumbered with to a certain extent. Once you're stuck in the program the only thing to do is reboot, so save any programs you're writing just in case.

Also, you have to be very careful about how you write your programs because syntax errors don't apply to PROC calls, like the IntOS routines, so if you typed in your program wrongly you can be assured it's going to crash.

Perfect intuition?



Who'd have thought it? IntOS is a superb method of creating Intuition style programs which look like authentic OS legal Amiga programs. It's good that it is a series of PROCs, because if it was an extension it would be more difficult to install into a system which has all the usual Amos coders extensions.

Okay, so it takes its own sweet time to run, but I would guess this is because it is sending the info from the Amos routines to the custom library, which is then

re routing them to the Intuition library. A fair bit of translating going on, but it works so who can really complain. I think I've seen Intuition working better with proper extensions like Liberator, as the instructions are hard coded into Amos commands, but beggars can't be choosers. It's easier to use than Liberator, but it's less powerful. If you're a beginner, then this is your best route, but harder coders need the Liberator advantage.

The bottom line

Product: IntOS
Supplier: OTM 2000
Price: £29.95
Tel: 0827 312302

Ease of use	8
Implementation	7
Value for money	7
Overall	7



Software Expressions

Established 1990



Introducing some of the best public domain & shareware disks available for the Amiga today. Go on...express yourself!

All disks are compatible for A500/A500+/A600/A1200, except (N) which indicates not compatible for 1200

BUSINESS SOFTWARE

- 8001. A-Gene (1 meg) Trace your ancestors
- 8052. Business Card Maker Simple, but useful
- 8086. Database Manager Comprehensive AMOS database
- 8104. Ami Calc Best accounts package around
- 8106. Amigo Prof Excellent database
- 8137. 6000 Business Letters Pre-written script for business correspondence
- 8140. Text Engine Excellent word processor
- 8152. PC Task Emulates IBM & PC programs
- 8153. File-It As sounds
- 8165. A-graph Beginners word processor
- 8175. Text Plus VERSION 4 Excellent word processor
- 8178. (2 Discs) Analytic ALC (2 Discs) Best spreadsheet available
- 8032. Check Book Account Keep tabs on your expenditure
- 8237. Stock Analyst Analyzes the share market
- 8240. Ledger Business Word Processor, Database & Spreadsheet
- 8242. Budgets 1.34 Accounts Manager

- ## EDUCATIONAL
- (N.B. This includes some games)
- 8283. Education 1 Learn German
 - 8162. The Bible (4 disks) (N) The King James Version
 - 8164. Word Database Creates maps of the world
 - 8165. GCSE Maths Syllabus taught disk
 - 8165. Astronomy Calculates positions of planets
 - 8194. Top concepts Learn about dinosaurs
 - 8212. Back Talk Advice on Communication Complaints
 - 8298. Dunks DTP Desktop Publishing for kids
 - 8234. Chat The Alphabet Educational spelling game
 - 8271. The Highway Code All you need to know
 - 8272. Junior Maths Education for kids
 - 8023. Electronic Train Set (1 meg) Construct own train set
 - 8043. Learn and Play 1 Good for the kids
 - 8044. Learn & Play 2 More fun for the kids
 - 8078. Treasure Hunt Great Kids game
 - 8086. Whiffled One Good general knowledge quiz
 - 82182. Storyland 1 (N) Create a children's adventure
 - 8236. Workhouse (N) Children's spelling quiz
 - 8280. Speak & Spell Learning for the kids (junior 7)

- ## CREATIVE
- C112. Slide Show Creator Create your own slideshow
 - C138. Label Designer Various label printers
 - C142. Super Fonts Lots of Super Fonts
 - C147. MORED Movable object editor
 - C160. Deluxe Paint Tutor Enhance your knowledge of this
 - C160. Shutter demo maker Create your own demo
 - C199. Clip Art For Your New Year, Birthdays & Birthdays
 - C206. AEG Adventure Creator (N) Create your own adventure games
 - C208. Heroes Labels Label Printer
 - C231. Audio Animation Studio Create Cartoons
 - C236. Word Power Solve crosswords & anagrams
 - C238. Post Form Variations of forms available
 - C241. WineMaker Database for wine enthusiasts
 - C253. Assassins Graphic utilities compilation. Enhance your Amiga
 - C253. Print Studio Multi purpose printer driver
 - C258. Garden designer Create your own garden excellent graphics
 - C261. X Beat Drum sampling & Drum machine

- ## MISCELLANEOUS UTILITIES
- U151. Impresario V4.0 Compacting program
 - M179. Camera Bole Work up your own camera interface
 - M182. J B Cohen A simulated modern package

- M204. Race Rally (N) For horse racing information
- M211. Post-It's Version 2 Work out call TV programmes
- M211. Training Log Keeping fit
- M217. Maple Blackboard Self course creator
- M233. Engineers Kit Check your Amiga system
- M243. D-Solve Crossword-complete with two crosswords
- M244. Logic V2.0 Thesauri & other facilities
- M245. Rolo Kids V4.4 Download 3 Grader for A1200
- M251. Procad Electronic Circuit design drawing program
- M252. Dividends Winner Draw out winning lists
- M255. Dossie de Demo version for gambling
- M257. Power Copies (N) Eight of the best 10 copies around
- M282. Essential Vrus Killers Kills all the latest viruses
- M283. Soccer League Database for statistics on soccer teams

- ## DEMOS & RAVE
- D068. Enterprise leaving dock Famous animation
 - D125. Girls of sport Pretty shots of talented girls
 - D148. The Run (1 meg) T. Richter's car chase animation
 - D186. Star Trek Animations Animations of USS Enterprise
 - D177. Star Trek Animations Again no 17 More live aboard
 - D286. Jesus on TV (2 disks) (N) Excellent live music
 - D282. How to skin a cat Amusing demo
 - D287. Calendar Girls Seductive
 - D312. Ray Vision Race music & Graphics
 - D313. Technic Warrior More of the same
 - D399. Jesus Loves All (N) Brilliant
 - D411. House Samples 808 Studio Samples etc
 - M152. Raw Songs 3 Raw Songs

- ## MUSIC
- M024. Pink Floyd The Wall remix
 - M102. No Limits (2 Disks) Quality music compilation
 - M104. Cybernet Excellent music compilation
 - M151. Mel-o-4 More catchy tunes
 - U244. Sound Tracker Samples (4 Disks) 100's of sounds for music sampling
 - U249. Sound Effects Different samples for music sampling
 - U282. 100's of Sounds 100's of sounds for music sampling

- ## ADVENTURE GAMES
- A005. All New Star Trek (2 disks, 2 disks) USS Enterprise complete. Best one
 - A030. American Star Trek (2 disks) (N) Jim Barbours graphic adventure
 - A014. Adventure Solutions (2 disks) Loads of hints of commercial games
 - A015. Dungeon Driver (2 disks) Difficult adventure quiz
 - A065. The Adventure Game Guide Track adventure games, books
 - A219. Space Rescue tricky Spaceflight through Terrain
 - A222. Neighbours Adventure (2 disks) Bring Paul Robinson to court
 - A223. Wizard Wars Graphics Adventure
 - A244. Legend Of Luthien Version 1.32. Adventure
 - A245. Iron Clads (2 disks) Graphic adventure
 - A250. Adventure Games Really good platform game
 - A262. Woble World Giddy Excellent demo game
 - A266. Fortress Excellent demo game

- ## ARCADE GAMES
- A010. Breakout Classic bar & ball game
 - A011. Bizzard Horizontal shoot-em-up. High quality
 - A021. Devilish Mission (1 meg) Similar to Balloonman, good fun
 - A053. Mayhem Brilliant shoot 'em up
 - A110. Lifeplay Similar to Pacman
 - A157. Doodle Difficult puzzle game
 - A171. Tap Sacker Quality platform game
 - A175. Jmuzz Wail NEW Wizard shooting game
 - A176. Super Knight Excellent shoot-em-up game
 - A180. Tank Attack (N) World War 2 simulation
 - A207. Raplacher Find the frogs. Very addictive
 - A208. Galesn's Tale (N) 14 excellent games
 - A215. Battleships Hunstuck game

- A221. Revenge of the Mutant Camel Shooting game
- A225. Anderson Family Quiz Quiz or call TV programmes
- A236. Dual 2 player shooting game
- A243. Tetris Excellent Tetris clone
- A247. Quiz Master Quiz which includes Editor
- A252. Bunkbuck Rescue the dying planet
- A255. Amos Games 5 Games including Graphics
- A257. Hojzer Shareware game. Award Best
- A300. Bob Shoot 'em up
- A301. Sector 1 Excellent game
- A304. The Fanthouse 3 games including Enigma
- A308. Jack Sharp Very similar to Enigma
- A309. Smart Hunt Find the Smart
- A310. Zaykon (2 disks) Space shoot-em up
- A324. Psycho Ball Waddle your jynxia with the festive disk
- A327. Tetris Pro Tetris game with exceptional variants
- A328. Calculus Control V Good missile command type game
- A334. Crazy Sea Popular platform game
- A338. Project Buzz Bar Excellent arcade game
- A340. Depth Charge Submarine game
- A341. Earth Invader The best space invasion game
- A350. Spittle Assault Shoot 'em up game

- ## SIMULATIONS
- Sim07. Return to Earth (1 meg) Space adventure
 - Sim102. Simulation 1 (1 meg) Recommended 5 games including Metro
 - Sim108. Wheel of Fortune TV Quiz, computerized
 - Sim124. Agonizone Warblers High-quality simulation
 - Sim143. Wolf presented Wolf presented
 - Sim147. Act of War Excellent strategy game
 - Sim218. Roundtable Casino Classic
 - Sim220. Sea Attack (N) Also includes a bomber
 - Sim234. Strategic Games 3 excellent games
 - Sim242. Money Market Stock exchange game
 - Sim305. Automobiles Overhead racing game

- ## SPORT
- Sp170. Amos Cricket Overcast
 - Sp198. Grand Prix Simulator Excellent
 - Sp208. Soccer Management game of US football type Sport
 - Sp299. Top Of The League Addictive football management game
 - Sp303. Soccer Ball Amos written football type game
 - Sp307. 18th Hole (2 disks) Excellent golfing game
 - Sp325. Master Man Olympics (2 disks) Excellent game for kids as reviewed in Amiga Computing
 - Sp337. Super League Manager 2. Updated soccer management game
 - Sp338. Scottish Football Manager Recommended

- ## A1200 ONLY
- U235. Sleepless Nights Compilation of A1200 utilities
 - D385. Fajrange 25 meg of graphics on one disk
 - D386. No point of sale Slowing French disks
 - D399. Share Of Art Famous quality video
 - D399. Raining Mad Me High quality music demo
 - D401. Lateral Edit Stunning demo
 - D404. AGA Seminars (5 disks) (N) 256 colour pictures use with EPrint etc
 - D409. Trackchord 11 More music review
 - D401. Tetris Excellent Vector film game
 - D405. Shogun A1200 slideshow
 - D410. Nigel Mansell AGA slideshow
 - D411. Linda Luvardi (2 disks) AGA slideshow
 - D413. AGA Kolorize (3 disks) Excellent palette card game
 - D422. Super Tetris Tetris clone
 - D423. U Magi Brilliant chess game
 - D426. AGA Mugsheet Brilliant breakout game
 - D427. Mac Fighter 2 player Street Fighter game
 - D473. Killing Land Platform game

Blank disks

5 for £2.75
or 10 for £4.99

POSTAGE

UK orders : 75p
Europe : £1.50
World : £3.00

PRICES

PD...£1.00 per disk
90p each for 15 to 24
85p each for 25 or more

NEW RELEASES

PACK

State your Amiga model and we will send you five of the latest releases.
All for £5

CATALOGUE DISKS

75p each
Details of over 4000 disks in our library updated regularly

SOFTWARE EXPRESSIONS

117 Kennington Avenue, Bishopston,
Bristol BS7 9EX
(9am-5pm Mon to Fri)

Send cheque/postal order made payable to :

Credit Card orders only
Tel: 0272 425987 (10am-4pm Mon to Fri)



Part 7

But to start with, back to the macros. These, as many of you will doubtless know, allow coders to assign symbolic names to 680x0 instruction sequences. When the

When the macro is used the parameters you supply get inserted into the placeholder

A macro then resembles a subroutine because it provides a shorthand reference to a frequently used set of instructions.



There is, however, one very significant difference: The code for a subroutine will occur only once within a program, and will program execution branches to that single section of code as and when required.

Each time a macro is used though, the assembler will insert a copy of the appropriate instructions (along with any parameter-specified alterations).

One advantage of the macro is that it allows assembly language programming to be done at a much higher level than was previously possible.

Another is that, like a subroutine, it is usually possible to use a macro knowing only what it does, rather than how it does it.

Nowhere is this more apparent than with the group of include file macros that have been designed to build system structure definitions.

The Amiga's operating system uses large numbers of structures (essentially just blocks of data in memory) chained together by pointers.

The C language is very good at handling these type of units because it has built-in structure access facilities which make direct use of structure templates defined in the 'h' header files.

The `IntuMessages` used to carry information to and from Intuition window IDCMP ports are a typical example of an

Amiga system structure and are based on an extended Exec message which, as a C definition, looks like this:

```
struct IntuMessage {
    struct Message ExecMessage;
    ULONG Class;
    WORD Code;
    WORD Qualifier;
    APTR Address;
    WORD Mouse1, Mouse2;
    ULONG Seconds, Micros;
    struct Window *ICMPWindow;
    struct IntuMessage *SpecialLink;
};
```

If an assembly language coder counts the number of bytes present in each field, it is pretty obvious that they can not only produce a set of numbers which represent the positions of those fields, but could in fact use EQU directives to associate names with the numerical positions.

Given an address which represented the base of such a structure in memory, they would then be able to use those names to access individual field values almost as easily as the C programmer.

The good news at this point is that assembler coders never have to do this because such values are already defined within the '.J' include files. The macro used to build the structure definitions is called `STRUCTURE` and it's used in conjunction with a number of supporting macros, including ones which calculate the sizes of all the usual C variable types - BYTE, UBYTE, APTR, WORD, LONG and so on.

The bottom line is that each member of every Amiga system structure has been described within the '.J' includes, in terms of a name and an offset from a base address.

Here, for example, is the equivalent assembly language oriented `IntuMessage` definition:

```
STRUCTURE IntuMessage,0
STRUCT {a,ExecMessage,AM_1121
LONG {a,Class
WORD {a,Code
WORD {a,Qualifier
APTR {a,Address
WORD {a,Mouse1
WORD {a,Mouse2
LONG {a,Seconds
LONG {a,Micros
APTR {a,ICMPWindow
APTR {a,SpecialLink
LABEL {a,112100F
```

and in this case the definition leads to the following set of named offsets being produced:

Offset	Field Name
48	IntuSpecialLink
4A	IntuICMPWindow
4D	IntuMicros
36	IntuSeconds
32	IntuMouse1
30	IntuMouse2
28	IntuAddress
24	IntuQualifier
22	IntuCode
20	IntuClass
0	IntuExecMessage

To be honest, it's not necessary to understand how the structure macro definitions work, but you do need to know how to use the offset values produced.

Indirect addressing

The reason that these structure offset definitions help, as far as indirect addressing with displacement is concerned, is that they let us specify displacement values in this very readable way:

```
move.l    {a1},d2
```

If, in the above example, `a1` had been loaded with an `IntuMessage` pointer, then the move instruction would retrieve data from the `im_Class` field of the `IntuMessage` and copy it to register `d2`. We could just as easily have copied the data into memory, and moving data into locations labelled code and class, for example, could be done with these two instructions:

```
move.w    {a1},code
move.l    {a1},class
```

How do the operations just described compare with their C equivalents? Well, if '`message`' was a pointer to the `IntuMessage` structure, in C we would use the `=` and `->` operators and write the assignment statements like this:

```
code = message->Code;
class = message->Class;
```

The following is a slightly more involved example based on the use of `Wait()`, `GetMsg()`, and `ReplyMsg()` to collect class, code and mouse co-ordinate information from an `IntuMessage` as it arrives at a window's message port. Firstly, the C version:

```
Wait (bitmask); /* wait for message */
MessagePortMsg (port); /* collect it */
class=message->Class; /* copy required fields */
code=message->Code;
Mouse1=message->Mouse1;
Mouse2=message->Mouse2;
ReplyMsg(message); /* and reply the message */
```

With assembler we use the same basic approach, but since `Wait()` needs a bitmask in `d0`, `GetMsg()` needs the port address in `a0`, and `ReplyMsg()` needs the message pointer in `a1`, we end up with the following 680x0 code:

```
move.l    bitmask,d0
CALLSTS  Wait,_AbsExecBase    wait for message
move.l    port,a0             port address
CALLSTS  GetMsg,_AbsExecBase  get message pointer
move.l    d2,a1               copy to address register a1
move.w    {a,Mouse1},mouse1   copy required fields
move.w    {a,Mouse2},mouse2
move.w    {a,Code},code
move.l    {a,Class},class
CALLSTS  ReplyMsg,_AbsExecBase and reply the message
```

Notice that because field names rather than numeric offsets have been used in the 680x0 code, there is in fact very little difference in readability between the C and assembler versions and readability is where the real strength of the named structure field approach lies.

The moral, of course, is that you should take full advantage of the standardised field names defined in the system include files because they will make your programs more understandable.

Amiga Frame Grabbing has just taken a Fall... in Price but definitely not in quality!



Grab images with your Camcorder

Take a signal from a TV with SCART output



Use a satellite receiver as your output device

Grab TV pictures or video frames from your VCR's video output

The revolutionary new ProGrab™ 24RT with Teletext is a 24-bit real time colour frame grabber and digitiser costing less than any of its rivals! Whilst ProGrab™ has slashed the price of frame grabbing on the Amiga, it has been bestowed the Amiga Format Gold Award and many rave reviews for its ease of use and excellent quality results!

With ProGrab™ you needn't be an expert in Amiga Video technology either.

Simple 3 stage operation ensures you get the right result - real time, after time!

STAGE 1...

Select any video source with composite output. This could be a camcorder TV with SCART output, satellite receiver, domestic VCR/player or standard TV signal passing through your VCR/player... the choice is yours.

STAGE 2...

Using ProGrab™s software, select an image you wish to capture in its on screen preview window (because the hardware grabs a frame in real time, there's no need for a still frame facility on the source device) and, ProGrab™ even includes a Teletext viewing/ capturing facility from suitable inputs. Once grabbed, simply download the image to your Amiga for full screen viewing.

STAGE 3...

Use the saved image in your favourite Amiga Word Processing, Desk Top Publishing or Graphics software packages.

ProGrab™ really makes it that simple!

ProGrab™ has recently been awarded Amiga Format Gold with a score of 100% and comments like... "ProGrab hardware is top notch" and "For sheer value for money, ProGrab cannot be beaten!"

ProGrab™ has just been given Amiga Shopper's BEST BUY badge with the phrase "If you want to capture quality images without spending a fortune this is the best for the job!"

Amiga's rating of 5/5 for ProGrab™ is... "Just the job for engineers and semi-professionals on a tight budget" and "very hard to beat. For the money, nothing can touch it!"

ProGrab™ is supplied with everything you'll need.

◆ ProGrab™ 24RT Digitiser

(with Power 5 Input Signal LED)

◆ ProGrab™ 24RT Software

◆ Parallel Connecting Cable

◆ Mains Power Supply Unit

ProGrab™ supports all recent Amiga

and is also fully AGA chipset compatible.

You can even work in the new graphics

modes up to 1472 x 512 pixels in 16M & Amiga

RAM permitting. Images are digitised in 24bit, 14.7

million colours. ProGrab™ supports... IF, ELM, LBM24,

Optional, JPEG, ProGrab™ File or Amiga file output formats.

ProGrab™ software has built in mono and colour animation facilities.

The number of frames is dependant upon your Amiga's RAM. For professional

users the optional ProGrab™ PCMCIA Interface Connector is available for Maximum

Data Throughput/Preview Refresh Rates.



Now you can frame grab on your Amiga for just...

£129⁹⁵

with ProGrab™ 24RT.



ProGrab™ supports any Amiga with Kickstart 2.04 or later and 1.5Mb minimum free RAM

ProGRAB™ 24RT

To get your hands on ProGrab™ call our sales line on
01-773-836781



or Ask us for a list of dealers in your area. For further sample data, please request an information pack & image sample disk.

GORDON HAWTHORNE COMPUTERS
Dept. ACQ New Street, Alfreton,
Derbyshire. DE55 7BP

White Knight Technology



210 Southview Rd, Clough
Cork, SWI, Eire
Tel: 01 204 4444

THE PROFESSIONAL
AMIGA SPECIALISTS
SUPPORTING SERIOUS USERS



01920-822321

9.30am - 6pm Monday - Friday

PO BOX 38, WARE, HERTS, SG11 1TX **FAX 01920 822302**



THE OPALVISION VIDEO PROCESSOR

A "PAL" Alternative To The Video Toaster Has Finally Arrived In The U.K.

White Knight Technology Are Pleased To Announce That We Are
Distributing All OpalVision Products With Immediate Effect.

We Have A System On Permanent Demo - Call For Latest Details

A1200 ACCELERATORS

BLIZZARD 1230-II TURBO

Two Standard SIMM Slots, Clock, Optional
68882 FPU And SCSI Port, No RAM fitted
WITH 50MHz 68030 and MMU £ 269
50MHz 68030 & 50MHz FPU £ 359
BLIZZARD SCSI-II I/F for 1230-II £ 79

For Memory, see MEMORY SIMM's box

GVP A1230 Performance Series II

Two SIMM Slots (GVP's 4 or 16Mb only),
Clock, Optional 68882 FPU And SCSI Port
WITH 40MHz EC030, 4Mb RAM £ 299
40MHz EC030, 4Mb RAM
and 40MHz 68882 FPU £ 399
50MHz 030, 4Mb RAM £ 449
50MHz 030, 4Mb RAM
and 50MHz 68882 FPU £ 549
GVP A1291 SCSI I/F for A1230 II £ 59

A4000 ACCELERATORS

WARP ENGINE 28 / 33 / 40MHz 68040
4 x 72Pin SIMM Slots for upto 128Mb RAM
Built in FAST SCSI-II DMA Interface
28MHz Version (With 68040/25) £ 799
33MHz Version (With 68040/33) £ 949
40MHz Version (With 68040/40) £ 1179

BLIZZARD 4030 TURBO 50MHz 68030 +
MMU, Opt. FPU (For A3000/4000) £ 239
Available with 50MHz 68882 FPU for £ 329
COMMODORE A3640 Card, 25MHz 68040
(As Fitted In Amiga 4000-040) S/H £ 499
CYBERSTORM 040/40MHz 68040 + 32-Bit
RAM, Opt. SCSI-II (For A4000 range) £ 899
GVP G-FORCE 40MHz 68040 + 4Mb
32Bit RAM (Exp. 128Mb), Optional SCSI-II
DMA Controller (For A3000/4000) £ 889

MONITORS

PHILIPS CM8833-II 14" PAL RGB, Y/C &
Composite Input (0.38 dot pitch, Stereo) £ 239
MICROVITEC CUB-SCAN 1438 14"
(Multi-sync, 0.28 dot pitch, No Sound) £ 295
MICROVITEC AUTOSCAN 2038 20"
(Multi-sync, 0.31 dot pitch, With DMS) £ 1175

ALL PRICES INCLUDE VAT

AMIGA 4000

ALL AMIGA 4000 MODELS ARE IN
VERY SHORT SUPPLY - PLEASE
CALL FOR PRICES AND AVAILABILITY

AUDIO PRODUCTS

SUNRISE AD516 / STUDIO 16

8 Track Stereo, 16-Bit, Better than CD Quality - Direct to
Disk Recording, Editing & Playback. Can be used in
conjunction with Bars & Pipes Professional, the DPS
Personal Animation Recorder (PAR) and also the new
Broadcaster Elite from Applied Magic, Inc. (see opposite)

Now £ 999 Inc. VAT

Please Call For A Full Brochure

LIGHTWAVE 3D V3.5

Official PAL Version FROM NEWTEK

Still Only **£ 449**

RAPTOR PLUS

RENDERING ENGINE

For LIGHTWAVE 3D

128Mb RAM, ScreamerNet Software,
Ethernet Card, Installation & Support

Configurations From **£ 12,900 Plus VAT**

3.1 UPGRADE KIT

WORKBENCH & KICKSTART

Manual set with 6 disks, ROM(s), and instructions

A500/500+/1500/2000 £ 89.95

A3000/3000T/4000 £ 99.95

HARD DRIVES

Bare SCSI

350 MB SCSI 3.5" £ 199
540 MB SCSI2 3.5" £ 299
1.0 GB SCSI2 3.5" £ 699
2.1 GB SCSI2 3.5" £ 1199
9 GB SCSI2 5.25" £ 3599

BARRACUDA

The Fastest SCSI-2
Drive (5.8 Mb/s Sustained)

2.1Gb £ 1299

4.3Gb £ 2469

A4000 IDE

340 MB IDE 3.5" £ 199
420 MB IDE 3.5" £ 225
540 MB IDE 3.5" £ 269
730 MB IDE 3.5" £ 389
1.1 GB IDE 3.5" £ 539

HARD DRIVE CONTROLLER

FASTLANE Z3

SCSI-II + Up to 256Mb
32-Bit RAM For the A4000

Now Only £ 299

AMIGA 1200

A1200+ 85 MB HD £ 445
A1200+127MB HD £ 489
A1200+200MB HD £ 519
A1200+340MB HD £ 689

MEMORY SIMM'S

32MB SIMM-32 £ 1099
16MB SIMM-32 £ 625
8MB SIMM-32 £ 315
4MB SIMM-32 £ 150
2MB SIMM-32 £ 85
1MB SIMM-32 £ 29
GVP SIMM-32's
4MB £ 195
16MB £ 985

VIDEO EDIT CONTROLLER - The KRP "TES20"

Amiga Based System Using "Burned In" Timecode. Controls Up to 4 Machines. RCTC
compatible, SMPTE read & write, GPI Trigger. LANC / Panasonic / RS232 etc. Shot
Lists, Vision Mixer control, Audio cues, unlimited scene capacity, synchronised audio
dubbing. Upgradable to upto 8 parallel control industrial machines, RS422 and VITC.

Prices From **£ 499**

Please Call For Full Specifications Of This System

REMOVABLE DRIVES

NEW "BOX 230" BERNOULLI By IOMECA	
230MB SCSI-2 INTERNAL DRIVE	£ 499
230MB SCSI-2 EXTERNAL DRIVE	£ 585
230MB REMOVABLE CARTRIDGE	£ 99

SYQUEST DRIVES

105MB SCSI INT. 3.5" x 1" DRIVE	£ 295
105MB SCSI EXTERNAL DRIVE	£ 415
105MB REMOVABLE CARTRIDGE	£ 55
270MB SCSI INT. 3.5" x 1" DRIVE	£ 449
270MB SCSI EXTERNAL DRIVE	£ 589
270MB REMOVABLE CARTRIDGE	£ 65

All Bernoulli And Syquest Drives are
 supplied with one FREE Cartridge

MAGNETO OPTICAL DRIVES

FUJITSU 128MB SCSI INTERNAL	£ 649
FUJITSU 128MB SCSI EXTERNAL	£ 749
FUJITSU 230MB SCSI INTERNAL	£ 799
FUJITSU 230MB SCSI EXTERNAL	£ 899
BOX OF 5 128MB MO DISKS	£ 149
BOX OF 5 230MB MO DISKS	£ 249

DAT TAPE BACKUP

CONNOR SCSI DAT - 2Gb, Ext.	£1029
CONNOR SCSI DAT - 8Gb, Ext.	£1109

CD ROM DRIVES

TOSHIBA XM5201B SCSI-2 (Int.), 2.5 X Speed, Multi-Session (Tray Load)	£ 210
TOSHIBA XM5201B SCSI-2 (Ext.), 2.5 X Speed, Multi-Session (Tray Load)	£ 275

NETWORKING

AMIGANET Ethernet for A2/3/4000	£ 279
ARIADNE Ethernet for A2/3/4000	£ 229
Both cards supplied with ENVOY & TCP/IP S/W	
Other Network Software Available On Request	
Eg. ENLAN, DECNET, NOVELL etc.	

SOFTWARE

LIGHTWAVE 3D V3.5 (PAL)	£ 449
ART DEPT. PRO. V2.5	£ 149
REAL 3D V2 New Price	£ 329
BARS & PIPES PRO V2.5	£ 215
MEDIA POINT V3.28	£ 219
TYPAINT 2 (Picasso / Retina / Harlequin / EGGS)	£ 169
SCALA MULTIMEDIA 210 (AGA)	£ 145
SCALA MULTIMEDIA 300 (AGA)	£ 299
SCALA MM 300 + ECHO 100	£ 389
SCALA ECHO 100 Edit Controller	£ 139
PRO CONTROL (For ADPRO)	£ 65
MORPH PLUS	£ 149

Other Professional Software Available On Request

CPU's & FPU's

68881 20MHz PGA	£ 29	68882 25MHz PGA	£ 49
68882 33MHz PGA	£ 75	68882 50MHz PGA	£ 89
68882 25MHz PLCC - For A4000/030 etc.	£ 69		
68882 33MHz PLCC - For A4000/030 etc.	£ 79		
68882 40MHz PLCC - For A4000/030 etc.	£ 119		
68040 25MHz - For Upgrading A4000-LC40	£ 165		
68030 25MHz with MMU (PGA Style)	£ 89		
68030 33MHz with MMU (PGA Style)	£ 89		
68030 50MHz with MMU (PGA Style)	£ 109		

VIDEO PRODUCTS BROADCASTER ELITE

Previous Version known as Digital BroadCaster 32

This Zorro III card performs the major functions of a Broadcast Quality, On-Line, Non-Linear, Digital Video edit suite (CCIR601 720 x 576 resolution). It provides REAL-TIME, FULL MOTION JPEG (50 fields / second) Capture & Compression, direct to hard disk. The video can then be edited and subsequently played back in REAL-TIME, at 50 fields/sec in upto broadcast quality - direct to video tape etc. The board has full LTC and VITC timecoding, both read & write (on all connectors - Composite, Y/C and YUV). It also interfaces with the AD516 Studio 16 audio card from Sunrise Industries to enable simultaneous audio and video editing. It requires an Amiga 4000 with full 68040 processor, large SCSI-2 hard drives, and fast SCSI-II controller.

Typical System is: (Approx £11,500 inc. VAT)

Amiga 4000-030 (2 + 8Mh, 1.0Gb HD)

Broadcaster Elite (Zorro III Card)

Producer (Editing Software)

Warp Engine 28MHz 040 with SCSI-II

2.1Gb Fast SCSI-2 3.5" HD (For Video)

Sunrise AD516 / Studio 16 (Audio Card)

14" MultiSync Monitor (For Amiga)

14" PAL Monitor (For Video)

Image Processing Software

System Configuration & Testing

GIVING FULL BROADCAST QUALITY, ON-LINE,
 NON-LINEAR, VIDEO & AUDIO EDITING

FOR MORE INFORMATION, OR TO ARRANGE A
 FULL DEMONSTRATION, PLEASE CALL

Dealers - We are Exclusive UK Distributors

GVP TBC Plus TBC card with
 transcoding PAL/SECAM/NTSC etc. £ 685

GVP G-Lock External Composite &
 S-VHS / Hi8 unit. S/W Controlled £ 265

VLab Motion Real-time JPEG Compression
 & Playback Video & Animation card £ 1039

VLab Y/C Real-time Hi8 digitiser card £ 349

PICCOLO SD64 ALPINE 64-BIT RTG Card
 2Mb, Zorro II/III Auto-Switching £ 339

4Mb, Version of PICCOLO SD84 £ 389

PICASSO II 2Mb with TVPaint Jr. £ 295

PAR - Personal Animation Recorder
 Output Your 24-Bit Rendered Animations To
 Video Tape - At Broadcast Quality £ 1849

Video Capture Card - For PAR £ 999

OPALVISION

Main Board £ 629
 Video Processor Upgrade £ 1149
 Main Board + Video Processor £ 1725

As seen at World Of Amiga, Wembley 12/94

For further information regarding the Video Processor,
 Upgrade Procedure, or to arrange a demo, please call.

Customers with vouchers can still upgrade at their voucher
 price via Centaur Development, California - call for more details

Dealers - We are UK Distributors for OpalVision

Other Professional Video Products Available

EMPLANT MAC / PC EMULATOR

Basic Version
 £ 245

SCSI / AppleTalk Version
 £ 295

Deluxe Version
 (SCSI & AppleTalk)
 £ 399

NEW "586" PC
 Emulation Option
 £ 119

A4 SCANNER

EPSON GT-6500 A4,
 24-Bit Colour with ASDG
 Software & Cable £ 699

SYSTEM BUILDING

WE HAVE THE EXPERTISE
 TO BUILD A COMPLETE
 SYSTEM FOR YOUR
 APPLICATION - PLEASE
 CALL TO DISCUSS YOUR
 REQUIREMENTS

SPECIALISTS

WE KNOW ABOUT THE
 PRODUCTS THAT WE SELL,
 AND ARE MORE THAN HAPPY
 TO ADVISE YOU.

SERVICE

FOR A PERSONAL SERVICE,
 AND AFTER-SALES BACKUP
 THAT IS SECOND TO NONE,
 LOOK NO FURTHER

DEMONSTRATIONS

DEMONSTRATIONS OF OUR
 HIGH END SYSTEMS CAN BE
 MADE BY PRIOR ARRANGEMENT

DELIVERY CHARGES

Express Small £ 6
 Medium £ 7
 For large items, please call.

SURCHARGE

if ordering with ACCESS or VISA
 there is a 2.5% surcharge.
 No surcharge for DELTA,
 CONNECT or SWITCH.

HOW TO ORDER

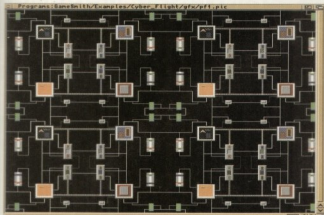
HAVE YOUR CARD DETAILS
 READY, AND CALL :

01920 822321

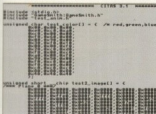
9.30 - 6 Monday - Friday
 BY POST :-

CALL FIRST TO VERIFY
 PRICE AND AVAILABILITY.
 BEFORE SENDING YOUR
 ORDER TO :

"WHITE KNIGHT
 TECHNOLOGY",
 P.O. BOX 38,
 WARE, HERTS.
 SG11 1TX



If you could see this super smooth scrolling you'd really be impressed



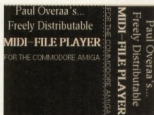
Using the direct code generation approach means that more advanced coders can keep a check on what GameSmith is doing

adding some 'graphics sparkle' to their programs – e.g. perhaps the odd animation).

The GameSmith graphics display routines are also well worth a mention, as are double buffering, trivially easy background picture loading, blitter control, multiple viewports, and super-smooth scrolling, plus more advanced goodies like support for parallax viewports, sliced parallax viewports and so on.

The linker library includes a set of IFF sound routines that work GameSmith's interrupt driven sound system. Routines are provided for loading/unloading and playing ISVX files, altering volumes/periods and so on. Surprisingly, tracker module player routines aren't included but the reason for this, as the manual points out, is that these routines are readily available from other sources.

The GameSmith library functions are provided in the form of a standard linker library that is linked with your controlling code in the normal fashion. The documentation is fairly



I've also found the CITAS facilities useful for general ILBM graphics data structure manipulation and code generation

extensive, with almost half the manual being devoted to library functions and their use – separate sections cover graphics, display, animation, sound, and the utility functions.

Each routine is described in what you might call standard Amiga autodoc form – in other words there is a C-style synopsis along with register usage, followed by a detailed description of the function purpose parameters and return values.

The docs are clear and examples of function use, and names of related routines, are also provided. Throughout the manual, examples are primarily in C and needless to say this means, right from the start, that you need to be C-literate in order to make sense of the material.

Utility functions

A range of extras are provided including CYDEC, a cypher-decipher utility which will doubtless be welcomed by professional coders because it allows them to encrypt graphics and sound files.

The GameSmith routines automatically recognise encrypted files and perform the necessary deciphering as the files are read in. CITAS, incidentally has the capability to produce 'locked' object files containing your unique serial number, which can only be loaded and used if the correct key is provided.

There's an AmigaDOS librarian that handles the opening and closing of run time libraries, joystick polling

routines, vector creation (path plot) routines, random number generators, and a host of other goodies.

Anything else? Yes, you get versions of both the HiSoft Devpac 3 assembler and the Dice C compiler on the GameSmith release disks. Although you get all of the GameSmith specific include files, what you don't get at the moment are the official Commodore Amiga includes. This is due to licensing difficulties and as soon as the Commodore bankruptcy issues are sorted out, the Commodore includes will be provided – most potential GameSmith users will doubtless have these anyway.

Summing up

GameSmith will run on all Amigas and can handle AGA graphics, mode promotion and so on. If you haven't guessed already, I like GameSmith a lot and can see it being used not by just games coders but by many other Amiga coders.

Like all large development packages, GameSmith takes a while to learn about but the best way to do this is to spend a few hours reading the manual – so that you build up an overview of what GameSmith can do – and then get stuck in.

As you start using utilities like CITAS you'll find that the general philosophy of GameSmith soon falls into place. There is, incidentally, a lot of good tutorial material in the manual and it pays to work through the examples provided in detail – a good grasp of the main components in the system will go a long way to shortening the 'learning curve' for the package.

The only bad news as far as potential use is concerned is that GameSmith is not for the beginner. Whereas environments like EasyAMOS and the like do allow complete beginners to at least do something constructive using simple Basic-like statements, GameSmith does not.

In short, GameSmith is essentially a tool for coders that have some C or assembler experience, and in order to use it effectively you really need to be past the 'Hello World' C coding stage. It also helps in a general sense if you are familiar with the Amiga's technical system documentation (namely the RKM manuals).

You don't, however, need to have ever coded your own games, written user copper lists, built your own viewports or done any of the other things that advanced graphics coders get involved with – although again it probably helps to have a general appreciation of the issues.

GameSmith is brilliant and it's no exaggeration to say that it could make your coding 500 per cent more productive. It's not difficult to use but do remember however that you must be C or assembler literate in order to take advantage of the facilities on offer!

SYSTEM ESSENTIALS

RED = Essential BLACK = Recommended



Hard Disk recommended

The bottom line

Product: GameSmith
Supplier: HiSoft
Price: £99.99
Tel: 0525 718181

Ease of use	9
Implementation	9
Value for money	8
Overall	9

Subscribe to the top value



Subscribing to *Amiga Computing* means you reap all the benefits of the exclusive treatment you'll receive as a subscriber, and you get to choose one of these great **free gifts** as well

So, you're wondering, what exactly is this exclusive treatment? It's a whole range of things that ensure you get your copy of *Amiga Computing* without any fuss or effort. As a subscriber there are no worries about remembering when the next issue is on sale. You can watch your favourite soap or have a lie in, because you won't be scrambling down to the newsagents. You'll be content in the knowledge that you are part of the select, because your copy of

Amiga Computing is reserved for you personally. Before the masses have even thought about their monthly expedition to the shops you'll have had your copy for a few days, delivered direct to your door, postage free.

Not only do you already know the latest news and gossip, but you've also had first pick of the bargains on offer. Subscribing by direct debit means you can spread the payment, contributing only a small amount each quarter.

Amiga Computing subscription order form

Choose either a yearly (13 issues) or a quarterly subscription

● I would like the following yearly subscription:

New	Renewal		
<input type="checkbox"/> 9655	<input type="checkbox"/> 9658	UK	£44.99
<input type="checkbox"/> 9656	<input type="checkbox"/> 9659	EU	£39.99
<input type="checkbox"/> 9657	<input type="checkbox"/> 9670	World	£34.99
<input type="checkbox"/>	<input type="checkbox"/>	Canada/USA	* \$38

● I wish to pay by:

☐ Cheque/Eurocheque/Postal Order payable to IDG Media

☐ Credit Card (Visa/Access/Barclaycard/Mastercard/Eurocard/Connect) Expiry Date /

Card No

● Tick which free gift/special offer you want (not available to world subscribers)

- 9576 ☐ Two free issues and a magazine binder
- 9596 ☐ Heimdall II
- 9587 ☐ Zool II - all machines
- 9587 ☐ Zool II - A1200 enhanced version
- 9586 ☐ Mastering Amiga beginners (Add £3.95 to the cost of your subscription)
- 9589 ☐ Amiga Disks & Drives Insider Guide*
- 9590 ☐ Amiga A to Z of Workbench 3 Insider Guide*
- 9591 ☐ Amiga Assembler Insider Guide* *Add £1 to the cost of your subscription)

* If you are paying by direct debit please pay additional amounts by cheque or credit card.

* Canada & USA subscribers send to: Europress (North America), Unit 14, Byham Drive, Woodstock, Ontario, N74 1P1, Canada. Tel: 519-539-0200, Fax: 519-539-9725

☐ Tick this box if you do not wish to receive promotional material from other companies

● Send this form to: Database Direct, FREEPOST, South Wirral L65 3EB. (No stamp needed if posted in UK.) Your subscription will commence from the earliest possible issue

- I would like a UK quarterly direct debit ongoing subscription
9671 ☐ £10.99 per quarter (Complete the form below)

Quarterly Direct Debit Instruction

AUTHORITY TO YOUR BANK/BUILDING SOCIETY TO PAY DIRECT DEBITS

Name of bank/building society

Your instructions to the bank/building society:

Address

I instruct you to pay Direct Debits from my account at the request of IDG Media. The amounts are variable and may be debited on various dates.

No acknowledgement required.

I understand that IDG Media may change the amounts and dates only after giving me prior notice.

I will inform the bank/building society in writing if I wish to cancel this instruction. I understand that if any Direct Debit is paid which breaks the terms of the instruction, the bank/building society will make a refund.

Bank/building society may decline to accept instructions to pay Direct Debit from some types of accounts.

Postcode

Your account no.

Sort code

Signature(s)

Date

FOR OFFICE USE ONLY

Originator's Identification No. 000000

Ref No.

● Deliver my magazine to:

Name (Mr/Mrs/Miss/Ms)

Address

Postcode

Daytime phone no

e guide for your Amiga!

Take out a subscription and indulge yourself!

Choose one of these free gifts or special offers

● Two extra issues plus an elegant Amiga Computing magazine binder

Save
£15.95



Subscribe to *Amiga Computing* and we'll send you a high quality, exclusive Amiga Computing magazine binder. These specially produced binders will keep your magazines in mint condition, providing an excellent reference point, as well as keeping them stored away neatly. As well as this useful binder you also get two extra magazines.

● Heimdall II

The follow-up to the classic Viking adventure from Core Design takes you once more into Nordic landscape in this arcade adventure and can be yours, absolutely free, when you subscribe.



SUBSCRIPTION HOTLINE

for card orders

Tel: 051-357 1275

Fax: 051-357 2813

● Books for Amiga users

Choose one of these truly useful books from Bruce Smith Books, publisher of the world's best-selling Amiga books.

Amiga Disks and Drives Insider Guide

This book is suitable for all Amiga users and is the definitive guide to the Amiga's floppy and hard disk drives.



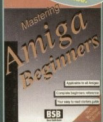
Amiga II to II of Workbench 3 Insider Guide

Suitable for Amiga A1200 or A4000 owners, this guide describes everyday usage of the Workbench in step-by-step terms.



Amiga Assembler Insider Guide

Ideal for new users wanting to learn to write programs in the native code of the Amiga assembler



Mastering Amiga Beginners

This is the book to provide you with a solid grounding, through easy to understand step-by-step instructions and explanations of terminology. This superb book covers the A1200, A600, Workbench familiarity – just about everything.

The Insider Guides normally retail at £14.95. Add £1 onto the cost of your subscription and any one could be yours.

● Zool 2

This widely acclaimed game follows Zool's travels through a further six huge levels, larger than those in the original, that feature a number of different ways of completion.

Zool has new and special abilities, including expert climbing skills, and is now accompanied by his pet dog, Zoon. With great sound effects, hidden bonus rooms, highly intelligent enemies and the choice to play Zool, Zool's girlfriend (shown here), Zool 2 makes an excellent free gift.

Zool 2 is suitable for any machine, though A1200 owners can choose an enhanced version (see order form).



Save
£25.95

When Amiga Computing reviewed Personal Paint 6.0 it had the misfortune of going head-to-head against Brilliance 2, an art package of unrivalled flexibility. Nevertheless, PP picked up a few points here and there and was admired for its good value.

Now the maker, Cloanto, is back with the latest update, v6.1, and though it would admit this is not a thorough overhaul of the system, a number of improvements are worthy of mention.

Immediately noticeable is the new packaging. An excellent manual is supplied within a ring binder, making for more convenience when looking up a topic or query. This may not sound that important, but since software like this is likely to be used year after year, durable documentation is vital.

To move onto the program itself, Cloanto has improved slightly on the look of the interface, adding more professionalism and consistency. Even the novice should be able to get the hang of it reasonably quickly.

A more important boost to the system, however, is its increased speed. Though we were impressed by 6.0's image processing capabilities, the whole process was painstakingly slow even on accelerated Amigas. Now, thankfully, the program has been accelerated by up to 500 per cent in some places.

The animation functions have received a tweaking so that they can now support ANIM 8 and hybrid animation formats, making for more flexibility in this area.

It also allows the user to compress animations, dramatically reducing their size, and there is a frame by frame timing function.

New depths



Recently, Stereograms, the patterned pictures that contain hidden 3D images, have started a craze that involves lots of people squinting in frustration at the wall. It's not surprising, therefore, that demand is high for software that allows you to create your own stereographic image.

A stereogram is a picture containing different information for the left and right eye. When a person looks at it normally they will not be able to see the hidden clues that make the image.

However, when each eye looks at a different part of the picture a pattern will emerge. Acting on eye convergence and divergence, the differences in patterns provide the brain with depth information that gives us the 3D effect.

Personal Paint now includes a facility allowing you to create your own Stereograms, an impressive addition since standard 3D image creators like StereoCad cost £30. At the very least, this feature bundles an enjoyable novelty into what was already a good value package.

In the field of Amiga 2D art packages, Personal Paint was always that bit cheaper than its rivals. Gareth Lofthouse assesses the latest improvements to see if v6.1 can offer even more for your money



Just one example of the printing quality possible. This was produced on an HP Deskjet 550C

Despite these valuable options, however, it has to be said that Personal Paint still lags behind both Brilliance and D Paint in terms of animation.

COMPLIMENTARY

On the other hand, these new features complement a package that already had some useful advantages. For example, it's possible to create multi-palette animations which can be viewed externally using a PD program like

Refining the art

Great artworks are possible - I knocked this up in a few minutes - not!



ViewTek. The virtual memory option is also handy, allowing inactive image data to be stored for later retrieval. When a memory shortage occurs, Personal Paint cleans up the virtual memory, storing less used material on disk.



SYSTEM ESSENTIALS

RED = Essential BLACK = Recommended

1 Mb

RAM

4 Mb

Chip RAM

The bottom line

Product: Personal Paint v6.1

Price: £59.95

Supplier: Ramiga International

Tel. 0690 770304

Ease of use	7
Implementation	7
Value for money	9
Overall	8

Still trailing, but not far behind

As has been stated, 6.1 is a refinement on version 6 rather than a complete modification. Because of this fact, certain shortcomings still remain when it comes to comparing Personal Paint to D Paint 4 or Brilliance 2.

It's good to see, however, that the program's speed in some areas has been dramatically improved thanks to faster machine code. What's more, the addition of the Stereogram creator is very welcome at this price. Troublesome times though these are for the Amiga, products like this show how blessed it is when it comes to getting powerful software for bargain prices.

As usual when it comes to buying decisions, it's horses for courses. We generally feel that Brilliance 2 holds the crown for art packages, but that's not to say there aren't some people who would find Personal Paint more useful. One thing's for sure, with this version retailing at £10 less than its previous incarnation, Cloanto's art package is well worth a look.

Flight of fantasy?

No...with a Blizzard your Amiga will fly!

If you've ever sat and waited for your Amiga to catch up, you'll know that an extra boost of power would be just the ticket.

But, the only problem is the cost... isn't it?

Well not any more. When you compare our cost per MIP with other boards you'll be surprised at just how little you'll have to pay to enhance the performance of your Amiga computer.

Then, the sky's the limit!



BLIZZARD 1220/4, 4Mb TURBO

The BLIZZARD 1220/4 TURBO MEMORY BOARD is the successor to the 1200/4 award winning unit. This exciting second generation product surpasses the performance of even that successful expansion module. Of course 1220/4 incorporates everything that a good memory expansion should, such as a Real Time Clock, further RAM expandability, optional FPU etc. as well as offering a Clock Speed Doubling Circuit which runs the 32 Bit FAST RAM at an amazing 28MHz. Not only does this latest model give Amiga A1200 owners all this, but the selling price has broken the sound barrier too!

1220/4 Turbo	\$229.95
4Mb 32-Bit Fast RAM 28MHz (68020 CPU)	
Add-4 Board (extra 4Mb for 1220/4)	\$169.95
4Mb 32-Bit Fast RAM add-on	
Motorola FPU	\$Call
68882 PLOC 25MHz	
Motorola FPU	\$Call
68882 PLOC 33MHz	

The Blizzard Performance Advantage...

Just look below to see how well your Amiga really could fly!



Blizzard products are distributed by...

gordon harwood computers
the UK's favourite Amiga dealer!

BLIZZARD 1230 TURBO ACCELERATOR RANGE including the NEW... 1230-III

High performance 68030 accelerators for Amiga A1200 computers. With its two SIMM sockets and one PGA type FPU socket, the 1230-II has a slightly higher spec. than the new economically priced 1230-III which has just one SIMM socket and one PGA type FPU socket. Both offer either 68EC030 40 MHz, or high end 68030 50MHz (which incorporate MMU - Memory Management Units) versions. The new 1230-III brings the same power to the Amiga A1200 as the acclaimed 1230-II, but at a price that's bound to take off!

1230-III Turbo 0Mb, 40MHz (68EC030)	\$189.95	Motorola FPU 68882 PLOC 25MHz (1230-II)	\$Call
1230-III Turbo 0Mb, 50MHz 68030 & MMU	\$229.95	Motorola FPU 68882 PLOC 33MHz (1230-II)	\$Call
1230-II Turbo 0Mb, 40MHz 68EC030	\$229.95	Motorola FPU 68882 PGA 25MHz (1230-II/III)	\$Call
1230-II Turbo 0Mb, 50MHz 68030 & MMU	\$299.95	Motorola FPU 68882 PGA 33MHz (1230-II/III)	\$Call
SCSI-II Module for 1230-III	\$TBA	Motorola FPU 68882 PGA 50MHz (1230-II/III)	\$Call
SCSI-II Module for 1230-II	\$89.95	4Mb SIMM RAM Expansion 32-Bit, 72 pin	\$129.95

FASTLANE Z3 SCSI Controller

Lightning FAST DMA SCSI-II interface available now for all Amiga A4000 owners. The only IDE answer with expandability up to 64Mb, of 32Bit Fast RAM. Does not require 'Buster Chip' upgrade. Use with hard drives, CD Rom etc.

PHONE US!

BLIZZARD 4030 BOARD

Great 68030 accelerator for your A4000. Available in either 40MHz or 50MHz versions. Completely replace the A4000 CPU. Up to 26Mb RAM expansion, built-in MMU with FPU option. Gives approx. 50% overall performance increase.

PHONE US!

NEW... CYBERSTORM 040/060

Modular accelerator for the 4000, 68040/40 MHz CPU - approx. 4 times the performance of standard A4000/040 (82 Mips @ 50MHz). Expandable to use 68060/50/60 and 66 MHz chips due soon giving up to 10 x performance gain over standard.

PHONE US!

POST FAX or PHONE YOUR ORDER TODAY!

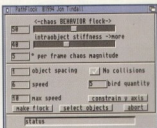
Mr/Mrs/Ms/Ms	Initials	Surname
Address		
County (Country)		
Daytime Phone		Postcode
Goods required:		Evening Phone
Card holder's signature		
Card No:		
Expiry Date:	Issue No/Switch Only:	
<input type="checkbox"/> Cheque/Bank Draft/Postal Order for £ <input type="text"/> payable to Gordon Harwood Computers Limited...		

ACD

Gordon Harwood Computers Limited, New Street, Alfreton, Derbyshire DE65 7BP. Tel: 01 773 836781 Facsimile: 01 773 810440

Animating with LightWave is made easier than most other programs by an elegant, easy-to-use interface, but there's still plenty of room for improvement. Utilities such as Dynamic Motion Module can add the effects of gravity, wind, and elasticity, but what if you just want an object to point at another one, or you need to create a convincing shoal of fish?

Motion Master is a two-volume set of disks, each offering four new animation tools. Volume 1 contains Time Machine, Extract Audio, Pathflock and Mouse Recorder, while



Pathflock's interface may be fairly simple, but the parameters on offer make a huge variety of flocking or herding movements available

Time Machine offers a 16-object morphing screen with timeline and easy drag to drop editing of keyframes to save animators a lot of bother



Birds of a feather

Volume II packs in the Child2World, Wobbler, Point At, and Volume Cube tools. Making use of LightWave's powerful ARexx commands and consistently simple interfaces, the tools are designed for beginners and experts alike and all run on Workbench at the same time as LightWave.

They are all fairly useful at least, but some, such as the Extract Audio feature aimed primarily at syncing sampled speech to a 3D mouth, will only be attractive to high-end users. Others, the Point At, Pathflock, and Wobbler utilities in particular, offer much more powerful general features.

Point At, for example, works by automatically generating a motion path for one object so that it will point at (or 'track') another object, no matter where the target goes during a scene. It is ideal for making computerised heads follow a tennis match or a gun track its target, but can be tricky to set up.

POINTING PROBLEM

When a scene is created and the motion path for a target object is set, this path and any motion path for the gun (or tracking object) is saved out. When these are loaded into Point At, the program generates a new motion path which the user can load in LightWave and assign to the gun.

However, when I've tried this utility on several occasions, the gun itself was successfully tracked to a target, but 180 degrees out so that the wrong end of the gun was doing the pointing. In addition, the XYZ scale of the object was set to zero, forcing me to shift all keys to the correct sizes. The 180 degree problem is impossible to fix if the target object moved in the Y plane, because this motion is also reversed and a gun will point downwards instead of upwards.

It took several attempts to create a scene which worked well enough that the re-sizing hassle didn't make the exercise pointless, and a fuzzy, under-written manual didn't help.

Wobbler is much more reliable and probably more useful. By enabling the user to add variable spring damping, restoring force, and

'wobbliness' to an object, it is possible to create the illusion of anything from a metronome to a frond of grass waving in the wind.

Just decide on the wobbling object's main movement path (a metronome is an easy example), save it out, and apply the Wobbler program to it. A new motion path is saved out with the position and original scale and movement retained, but with the three added variables.

Pathflock is probably the next most useful, but again it is a tricky one to use. For a flock of 20 birds, the user would create an object made up of 20 points and position them where each object was to start its flight, then use the Get Points macro (supplied with the disks) and apply Pathflock to these points.

The program's interface enables the user to choose the object file or files to be used and how many objects there will be, whether to avoid collisions, how much repulsion there

Stevie Kennedy bumps and gyrates with Motion Master, the latest range of LightWave animation tools to flock their way across the Atlantic



What about the rest?

Of the other programs in the series, Child2World is handy for duplicating an object out of a parent and into another scene without losing its positioning or other variables. Volume Cube is good at creating a space in which objects can bounce around randomly. Time Machine offers an excellent graphical interface to control morphing between up to 16 objects, and Mouse Recorder can produce real-time generated motion paths.

With a few bones added, this flagpole can be made to twang around in the wind at the same time as the flag, a simple effect which does a lot to boost realism

is between each of the objects in the flock, and their speed and spacing. Displacement maps can also be loaded if the animator needs to make birds flap their wings or fish wriggle, and the Y axis can be locked out to simulate a herd moving on a flat plane.

The problem is that all objects will move towards the same target, which means they start well spread out and then converge towards the common target. Only collision detection and the user-defined spacing or repulsion keeps them apart, and it can take an awful long time to set up a flock with just the right parameters.

SYSTEM ESSENTIALS

RED = Essential BLACK = Recommended



Kickstart



LightWave 3.1

The bottom line

Product: Motion Master
Price: £119.95
Supplier: Premier Vision
Phone: 071-721 7050

Ease of use	7
Implementation	8
Value for money	8
Overall	7

SYSTEM

Your essential guide to the world of Amiga gaming



Seconds out... round 2

Acclaim is back with the world's bloodiest beat-'em-up

This month the spotlight falls upon

Mortal Kombat 2 102

Base Jumpers 105

LucasArts Classic Collection 108

Jungle Strike 112

Rise Of The Robots 114

Lion King 118

Delphine Classic Collection 124

Shadow Fighter 130

SYSTEM ANALYSIS

98 Beat The System

Hints and tips for Premier Manager 3 and Darkseed on the CD32

120 The making of Primal Rage

A close-up at what went into the creation of 1995's next big thing

128 Beauty in the Beast

The striking CD graphics and animation in Rise of the Robots. How did they do it?

Super Stardust update

Amiga gamers who own an Archos Overdrive HD and are experiencing problems running Super Stardust need fret no longer! If you want to resolve the problem, please send the registration card which comes with the game, along with an explanatory note, to Kenny Grant at the Team 17 address. A new version will be issued ASAP.



No more problems for Archos Overdrive HD owners

0000

system online

System 'scoop', Tina Hackett brings you the latest from the world of Amiga gaming. This month we have news of Worms, Super Streetfighter 2 and High Seas Trader

Outside, now!

The Amiga has gone beat-'em-up crazy at the moment and US Gold is hot on the trail with the latest Street Fighter 2 saga. Called Super Street Fighter 2, it adds four new players, each with a new setting.

The new characters are Cammy, Dee Jay, Fei Long and T Hawk. All the oldies are there too, like M Bison, but they have been improved. For example, Bison has a new attack which can pass through projectiles and Chun Li has a chargeable fireball.

Programming is by a US Gold in-house team and promises to play like the arcade version. Music-wise, the CD32 game will have a full soundtrack and for the Amiga versions they are trying to recreate the sound from the arcade.

Super Street Fighter 2 will be available this February for the A500, A1200 and CD32.

Park life for CD32

Bullfrog's hit game, Theme Park, is all set for the CD32. Its excellent business sim has received nothing but praise so far and scored 92 per cent in System, earning it the much coveted Platinum Award.

Bullfrog's other commitments mean that it won't actually be doing the conversion. This will be handled by Mindscape who has been working on the project since the summer.

CD32 owners can try their hand at being business tycoons soon for £34.99!



Bullfrog's superb game Theme Park is set for the CD32

Can of Worms

Team 17 is still a hive of activity for Amiga games and yet another release is planned this year. We've been receiving Barbara Windsor-esque press releases from the Teamies lately, stacked full of innuendoes. This particular one asks: "How hard is your worm?" and then goes on to explain the slowdown on its latest release, Worms.

It revolves around the unusual concept of, believe it or not, worms! The worms are at war and up to 16 people can play with the aim of trying to kill each other's worms. Alan Bunker, Media Manager, describes the project: "How can I best describe Worms? A cross between Lemmings and Cannon Fodder, perhaps? Worms contains strategy elements combined with a huge and generous dose of violence. It's side-splitting action all the way!"

The worms all have different weapons at their disposal, such as homing missiles, bazookas, dynamite, and they also have combat abilities such as Dragon Punches.



Worms looks like being a cross between Lemmings and Cannon Fodder

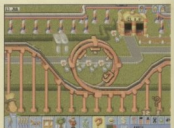


Worms: A novel war-'em-up from Team 17

There are all the other war tactics too. For instance, you'll have to build bridges over water obstructions or call enemy strikes. Apparently, all the worms have individual voices and you can add your own as well!

According to Worms' Project Manager, Marcus Dyson: "If this game doesn't send you into fits of orgasmic merriment, then you don't deserve to be part of Wormkind."

Crazy, yes... very probably!



Audio's avalanche

Audiogenic has a number of releases planned this year. One of these is *Exile*, a game that was originally released on the A500 a while back and was badly let down by the graphics. Thanks to AGA graphics, this is a much improved version for the A1200 and CD32.

It is an arcade adventure game and is set in space. A deranged genetic engineer had been exiled to the planet Phobos and was thought to be dead. But you find out to the contrary and that he has built a laboratory to continue his dodgy experiments. It's up to you to stop him.

Exile looks to be very realistic with true-to-life effects such

as gravity, inertia and buoyancy. Atmospheric sound effects also add to the game.

Audiogenic's next release is *Super Loopz*, a puzzler game where you have to join the pieces to create loops. The bigger the loops, the more points.

It's not as easy as it sounds because the screen becomes filled with half-completed loops. There are three different modes ranging from arcade and standard, to puzzle, and one or two players can take part. Audiogenic promises that it will be 'dangerously addictive'.

Both releases are expected this February.

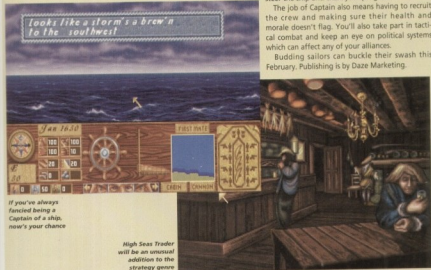
Trading on the seven seas

Impressions, renowned for its strategy games, is set for another offering in the same vein. The premise is very different though. Called *High Seas Trader*, it takes place, yes, you guessed it, at sea.

You take the role of Captain and command anything from a cargo vessel to a warship and it's your aim to sail around the world, making your fortune in trade and keeping the pirates at bay. With your realistic sailing aids you'll need to set your course, steer the ship and chart your progress.

The job of Captain also means having to recruit the crew and making sure their health and morale doesn't flag. You'll also take part in tactical combat and keep an eye on political systems which can affect any of your alliances.

Budding sailors can buckle their swash this February. Publishing is by Daze Marketing.



Skidmarks sequel

Acid Software has been busy at work on its next title. The release of its sequel to the popular isometric racing game *Skidmarks* is imminent. It's called *Skidmarks 2*, funnily enough, and is to have a whole host of new features.

These include a new eight car mode for AGA machines, 12 new tracks (plus the original 12), caravan towing and new cars including the Mini, VW, F1 and the Midget.

There will also be a triple split screen for three players to race on one Amiga, shared screen mode for up to four-player team racing, and improved comms support for local and remote linking.



Combat Classics 3 is the essential bargain for all wargamers!

Combat Classics

Here's a budget compilation for all the war mongers out there. It comprises three war games that includes *Gunship 2000*, the best-selling simulation of the AH64A Apache which puts you in command of one of America's most powerful rotor craft; Campaign, a WW2 military warfare sim which takes you over 20 historically accurate locations and gives you control of around 3000 vehicles, and finally *Historyline 1914-1918*, a WW1 wargame sim. *Combat Classics 3* is priced at £34.99.

Taxing matters

The recent government budget announced a new license duty on coin-op machines but it could be good news for the home computer industry. The tax places a £250 annual fee on all non-cash prize machines which will push up the price-per-play. It is thought that this may make the machines quite expensive and drive the kids from the arcades and back to their home machines.

Italian stallion

Core Design has signed up little known Italian developers Dynabyte. The Genoa company is putting the finishing touches to its title, *Big Red Adventure* which is initially out on the PC, but Amiga versions are planned. Core is hopeful that the deal will be on-going.

SYSTEM Selections

**Stuck for what to spend
your hard-earned cash on?
Take a look at some of the
best games we've seen over
the past few months**



Gaurdian CD32

This game is a rarity in that it actually looks and sounds like 32-bit technology. What's more, the attraction is more than skin deep thanks to playability that must have taken a lot of care and attention on the developer's part. If you're out for plain old-fashioned action, buy Guardian and invigorate your spare time. This one shouldn't be missed.



Zeewolf

The game plays like a dream. Once you've mastered the controls you're faced with a shoot-'em-up world packed full of action and excitement. Binary Asylum can slap itself on the back because Zeewolf is a tremendous success. It's a game that doesn't rely on heavy advertising or publicity to sell it, but simply lets the game-play do the talking. I have nothing but praise for Binary Asylum's debut and it's one of the gaming highlights of 1994.

Ruff 'n' Tumble

Ruff 'n' Tumble is one of the best platformers I've played in ages. Wunderkind has done an amazing job and seems to have got every single element of the game just right. The graphics are superb, the sound is good, the gameplay is amazing and it has an uncanny level of addiction that'll keep you playing it again and again. Ruff 'n' Tumble is, quite simply, the cutest platformer of the year.

Roadkill

A sore thumb and a foul temper were sure signs that the game had me gripped. It may not look much, but it has all the elements that a thoroughbred arcade game should have. The developer deserves full credit for balancing so many appealing features in one game. Roadkill is yet another triumph for a software house that can take a simple game and make it shine.



Sensible World of Soccer

The interaction between the tactics and the transfers is just brilliant and in my mind, SWOS is the world's first football game that has managed to get a perfect balance between a pure arcade game and a management simulation. I had my reservations about yet another episode of Sensible Soccer, but I've had those firmly destroyed because SWOS, quite simply, is the best Amiga game that money can buy.



The scores on the doors

**Come on regular readers, you must know how
it works by now. New readers, welcome
to the most exciting part of the mag
and hold on to your hats...**

I'm sure many of you are now familiar with our new scoring system, but for those reading Amiga Computing for the first time and those who might have forgotten exactly how it works, here is our guide to the System scoring, err system.

In our opinion, review scores have lost their context as a percentage; some products receiving scores which were only a few percentage short of being the "perfect" game, when in truth they were only marginally above average.

OK, so the scores might seem unnaturally low at first, but that's only because other scoring systems tend to be on the high side and perhaps not as comprehensive or honest as they could be.

In the long run you'll receive a more concise and reader-orientated review that's geared towards the consumer.

0-20 This is given to the lowest of the low

21-30 An all-round poor game that may have a single saving grace

31-40 Just below the average, perhaps let down by a few indiscretions.

41-55 Games of this score are roughly average with 50 being a perfectly average score.

56-66 This is an above average game and is worth buying. For this reason it would be awarded the **BRONZE** award.



67-77 A game of high quality that you as a reviewer would have no reservation in recommending. Anything of this ilk would be awarded the **SILVER** award.

78-89 A brilliant title. Definitely worth buying and almost the definitive of its kind. This type of game would receive the **GOLD** award.

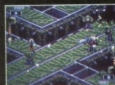


90-100 The best in its genre. This benchmark title receives the **PLATINUM** title.



SKELTON KREW

Wanna pack a BIG GUN with enough ammo to level a city? You got it...!
 Wanna massacre seriously psychotic Psychogenix mutants and get paid? You got it...!
 Wanna blast your way through the savage secret zones, deadly Krewtraps, mad'n'bad buildings and hideous end-of-level Psykos comprising 6 HUMUNGIOUS levels of 3D Isometric carnage - and wear a spectacularly sexy, hyper-hi-tech, Big Ordinance Neutralising Exo Skeleton to boot?



Well you got it all - but only if you join Spine, Joint and Rib, otherwise known as the SKELETON KREW, in their first OUTRAGEous blastfest!!

Up to two players.

Available on:
 Mega Drive,
 Amiga 1200
 & CD 32



CORE
 DESIGN LIMITED

IN
SUPERGOREScope

Skeleton Krew © Core Design Limited.
 All Rights Reserved.

55 Ashbourne Road Derby DE22 3FS Telephone (01332) 297797 Facsimile (01332) 381511

Skeleton Krew is a trademark of Core Design Limited

SEGA

MEGA DRIVE

Kicking off

1. Start off with Halifax Town as they have the best strikers in the division which means you should score more goals than anybody else.

2. Always play your best striker in the number nine shirt because he'll get far more scoring opportunities in that position.

3. Make sure your defensive players always shoot from long range because they're not going to get close to your opponent's goal very often.

4. Put your midfielders to long shooting as well because they'll score more goals from that kind of range.

5. Your strikers should have a medium shooting range, except for your star

number nine who should shoot from short range as he will capitalise upon loose balls in the six yard box.

6. Never sell youth team players as you could have a Ryan Giggs on your hands.

Youth team players improve quickly and help keep your team's average age down.

7. Try to ensure that all your squad have played at least four matches by the

Premier

beat the system

It's a massive double-header this month. There's a full set of hints and tips on how to make it to the top in Premier Manager 3, plus a complete guide to Darkseed, which has just made its debut on the CD32.

Enter the bathroom and use the aspirin from the cabinet. Click on shower stall. Go to the second upstairs bedroom through the right door of the bathroom. The

library card is in the raincoat. Head downstairs. On the office desk are some plans which show you where the secret passages are. Watch out for the secret



Darkseed is perhaps one of the weirdest adventures I've ever played. If you consider implanting babies into people's minds weird!



Always start off with Halifax Town as they have the best strikers playing for them. Make sure the No. 9 shirt is filled by the best attacker



When you're down at the local job centre always hire the best man or women for the job in hand. It'll cost, but it'll be worth it

Dark

doors as they close behind you and this will cause problems when you reach the dark side. Make sure they're always open.

Climb the ladder. On the second floor you'll find some rope. Exit the passage. The doorbell may be ringing, so answer the door and look at the package. Now go to the attic. There is a watch under the biggest trunk. Wind the watch. Step onto the balcony. Tie the rope to the gargoyle and climb down it to the garage. Open the car trunk and take the crowbar, then take the gloves out of glove compartment. Go to the front of house and read the paper.

Head back to the attic and open the trunk on the right with the crowbar. Go outside and move right towards the heart of Woodland Hills. In the library you'll find a bobby pin on the floor. Give the young lady the library card. Click on a green box to get an important message.

You'll need to pick up a bottle of scotch. Delbert will appear and give you a Get Out of Jail Free card and invite you over to his place, tomorrow at six. Exit and head left towards the graveyard. Read the diary to discover how to open the crypt. Once inside you'll find some urns where you'll find a key in Joe Tuttle's ashes.

Go home and open the clock case with the key and you'll find a nameplate. The librarian will call and tell you that she has a book for you. Go back into town to pick it up. Head back home and go to sleep.

At the start of the second day you must take your aspirin and have a shower. Kill some time and have a listen to the car radio. The missing piece from your parlour mirror arrives. Slip it into place and you'll have created a portal to the dark side. Be brave and cross over.

You'll notice two doors. Go through the one on the right to

Manager 3

end of the season, including any youth team players you might have. Their statistics will improve far better in the closing season with a bit of experience.

8. Set the defences' passing to about 70

per cent. None of that continental dribbling out of defence nonsense here, you're in the English league now matey!

9. Set the midfielders' passing rate to about 60 per cent.

10. Put your attackers' running to about 75 per cent and set the passing rate to short.

11. Try to hire all the best staff you can afford.

12. Always try to buy players over the phone, as you can often find out which players will work out cheaper out of contract. You can never beat personal contact when wheeling and dealing.



When you eventually bring a youth player up through the ranks to the first team, keep hold of him - you might have a genius on your hands



Results are what it all boils down to. No matter how good your decisions are, it's up to your players whether you'll become a success or a failure



Tactics play a very important part in Premier Manager 3. It will take a while to get things running smoothly, but once again it'll be worth it



Use the player loan facility as often as possible. You could pick up a quality player who'll push towards promotion

seed



the room with the skulls and have a look around. Enter the room to your left. You'll find plans for embryo implantation on the table. Now move through the door on the right. This corresponds to the secret passage door, downstairs in the other world. Step into the turbo-lift.

The beginning of your quest and Mike wakes up with a raging headache. The expert in the cabinet will solve your pains

Head left to the observation deck. On the wall you'll find a switch, so use the gloves to activate it. Return to the lift and go to the room with the skulls. There is now an open door, which you must go through and hear left until you find a shovel. Return to and go



You'll find a car in the garage. Its trunk holds an important item and it's a good idea to try and fiddle around with the radio

through the mirror portal.

Walk to the graveyard and exhume John McKeegan. You'll find a piece of his journal - read it. The police have staked out your house and you'll soon find

yourself locked up. You have the Get Out of Jail Free, but first you need to stow some supplies. Leave behind the gloves, the money and the pin. Stick these

13. Make sure that when fit, your players are always in training. There is no room for slacks in the modern game.

14. Try to keep your players' moral high, at least seven. Financial bonuses will help raise their moral, but don't go mad if you haven't got much cash.

15. Use the player loan facility as much as you can. You can sell someone else's half-man into the dirt and remember, a reserve in a higher division may well be better than one of your own stars.

16. To maximise support and revenue, and minimise fines and penalties, aim for the following statistics in each division:

Conference

Ground Safety = 2 Stars
Ground Facility = Basic
Gym = None
Ground Rating = 40%
League Seat Price = £5
League Terrace Price = £3
Cup Seat Price = £8
Cup Terrace Price = £5
Overdraft/Loan = £250,000/£50,000

Division 3

Ground Safety = 2 Stars
Ground Facility = Average
Gym = Basic
Ground Rating = 50%
League Seat Price = £8
League Terrace Price = £5
Cup Seat Price = £12
Cup Terrace Price = £8
Overdraft/Loan = £750,000/£100,000

Division 2

Ground Safety = 3 Stars
Ground Facility = Good
Gym = Basic
Ground Rating = 60%
League Seat Price = £12
League Terrace Price = £6
Cup Seat Price = £18
Cup Terrace Price = £9
Overdraft/Loan = £2,000,000/£200,000

Division 1

Ground Safety = 4 Stars
Ground Facility = Excellent
Gym = Average
Ground Rating = 70%
League Seat Price = £14
League Terrace Price = £8
Cup Seat Price = £21
Cup Terrace Price = £12
Overdraft/Loan = £5,000,000/£500,000

Premier League

Ground Safety = 4 Stars
Ground Facility = Excellent
Gym = Average
Ground Rating = 80%
League Seat Price = £16
League Terrace Price = £10
Cup Seat Price = £24
Cup Terrace Price = £14
Overdraft/Loan = £8,000,000/£750,000

17. The better the gym you have, the better your coaches will perform.

18. For those who are completely rubbish at Premier Manager 3, then these cheat numbers, which can be typed in on the phone, will help you on your way to success.

Type in 400040 and your players will instantly get high fitness, moral and both feet. Anyone you couldn't sell, you now can. The cheat also clears the director's debt and you can re-apply for more cash.

Type in 343343 and you will receive some much-needed extra money.



Use the telephone when trying to buy players as you'll always get a better deal, thus proving that it is 'Good to talk'.



When making ground improvements it's a good idea to build a gym as your players will train and their fitness will improve

items under the pillow and grab the tin cup on your cot. Rattle it on the bars and when the guard comes, give him the card.

Go and meet Delbert at the back of your house, but steal the police gun before you go. Delbert will be next to the garage. Offer him some scotch and when he leaves, pick up the stick off the floor.

Cross the portal and take the first door on the right and then this door that the pulling of the lever opened. Follow the road until you meet Dark Fido, the bridge guardian. Throw the stick into the abyss. Go to the right until you get to the dark side equivalent of the police station. The Sergeant will put you into custody and will take away your gun.

Grab the items from under the pillow. Use the pin twice on the door. Swap the pin with Sargo for the headband which will make you invisible. Exit the building and go right. Walk past the guard and enter the Archives to meet the Keeper of the Scrolls. Activate the machinery and you'll get a roll of microfiche. Go home and go to sleep.

Day three of the adventure - take an aspirin and a shower. Wait for the delivery of a package and you'll find an axe handle inside. Go to the library and read the

microfiche in the periodicals room, but don't use the rope instead of the front door. Go home and pick up another bottle of scotch on the way. Enter the house from the rear and go to the cellar.

Locate the loose stone, remove it and you'll find a set of car keys.

Take the stone to the dark side power nexus. Energise the stone and then use it on the axe handle to make a hammer. Return to earth and go to the car. Pour the scotch into the gas tank, then use the keys in the ignition.

Cross the portal for one last

time and enter the spacecraft. Use the gloves on the lever to start lift-off, then run outside.

After the animated sequence, you'll be returned to earth and all that's left to do is smash the mirror with the hammer and this, folks, is the end of the game.



The mirror is the portal to the dark side, but at the moment it's missing a vital piece to get it fully operational

The original Mortal Kombat was one hell of a game and it sold like the proverbial hot cakes across almost every single game format, but it didn't do too well on the Amiga. Why? I don't know, maybe we just go squeemish at the sight of all that blood! The actual game was a very good conversion from the console versions and was packed full of some of the most horrific and blood-soaked pixels you were ever likely to see. To make things even better, the game's designers had included a fair amount of playability and thus the graphics didn't take too much away from the gameplay.

Just as luck would have it, Acclaim, due to its success on the consoles, has released the second game in the Mortal Kombat series on the Amiga. To give you an idea of just how big this sequel is, there were two and a half million copies distributed to 15,000 retailers across the world. The game was backed up by a £7 million advertising campaign, it went straight to the number one spot in the Gallup charts, and was selling out across the UK within days of its release.

There is your evidence. Mortal Kombat 2 is the biggest, most important video game created so far, but how will it perform on the Amiga? Sometimes a product as big as this just gets hyped to death, everyone runs out to buy it and then finds out later that it was really a pile of rubbish.

Does Mortal Kombat 2 have the guts to kick its way to the top of the software charts, or is it lacking the muscle to fight off the competition?

INTRODUCTION



Down in the sewer Scorpion executes his fatality manoeuvre and leaves Jax bobbing up and down in the waste



Kung Lao, a master of all arts including haberdashery, demonstrates his infamous flying hat manoeuvre to Reptile

Mortal



Choose from this bunch of reprobates and then get the joystick warmed up and enter the blood-soaked world that is Mortal Kombat

We welcome the return of the world's bloodiest beat-'em-up! Jonathan Maddock punches and kicks his way through the blood and takes a look.

STORYLINE

While the komatants in the original Shaolin Tournament wagered their lives upon their skills, in Shao Kahn's Outworld tournament the stakes have been raised.

The tournament first tests a warrior's fighting skill by pitting him against each of the Earth warriors. Once a warrior has defeated the other komatants in the tournament, he then takes on the first of the Outworld's hosts, the demon Shang Tsung.

His youth restored by master Shao Kahn, Tsung possesses both powerful magic and

considerable physical skill.

Should the warrior defeat Tsung, the next opponent is the huge Kintaro. Kintaro is from the same race of half-human dragons that spawned Goro. Enraged at his comrade's death (in Mortal Kombat 1) at the hands of a mere mortal, Kintaro sought entrance to the tournament to seek revenge. Shao Kahn granted him this privilege in exchange for his servitude.

Defeat Kintaro and you'll become powerful enough to face Shao Kahn, the supreme ruler of the Outworld. End his life and his rule and you'll achieve your objective and become the Supreme Warrior in the Outworld realm.



Rayden finds out that his flying mouse is useless thanks to Kung Lao's well-timed duck



Baraka is perhaps one of the best new characters in Mortal Kombat, but in this case he earns himself a beating from Kung Lao

GRAPHICS

I think this box should've been re-named 'Gore' because that's exactly what Mortal Kombat 2 is packed with – the fatalities are even worse than last time around. Multiple decapitations and cannibalism are at the forefront of the various 'death' manoeuvres. If you want to see someone getting the top of his/her head eaten off, or you want to admire someone else getting their arms pulled off, then I guess this is

the game you've been lusting for, you sick sick person.

Of course this is what sparked off the controversy last time around and probably the reason, due to all the hype and media involvement, that the game became so big in the first place. Remember Mortal Kombat 2 isn't real and none of the characters really exist, so if everyone gets that into their heads then there won't be any controversy this time around...probably.

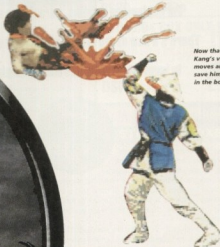
Take the blood and gore aside for a moment, and you'll find that the

various backdrops and sprites look pretty damn good. The digitised actors have been faithfully ported over from the Megadrive version and look slightly better and a tad sharper than the sprites found in the original version.

Mortal Kombat looks brilliant when it's in full flow. It's as close as you're ever going to get to having a full-blown coin-op in your bedroom, and for that reason I stand up and cheer.

90%

Kombat 2



Now that looks painful! Lu Kang's vast array of special moves and manoeuvres cannot save him from getting punched in the bony

SOUND

Well, to be honest with you, I don't think you'll be impressed with the soundtrack contained within the game. It's fairly atmospheric and it's got a distinct eastern flavour to it, but it's nothing that you haven't heard before. If you like bog-standard coin-op tunes with no emotion whatsoever then turn up your TV, but I suggest that you simply turn it off or put on some banging tunes of your own on your stereo.

The sound effects are not too bad, with plenty of squelches and smacks to keep you interested, but there isn't anything that you haven't heard in the previous Mortal Kombat incarnation.

40%

Publisher: Acclaim

Developer: Probe Software

Blocks: 3

Price: 29.99

Genre: Beat 'em up

Hard disk install: No

Control system: Joystick/joystick

Supports: A500/600, A1200/4000

Recommended: 60000

OPINION

80%

It took me quite a long time to come to a decision about the percentage Mortal Kombat deserves. OK, so the graphics are delightfully gory and blood-soaked, the presentation is top-notch, the soundtrack is abysmal, the sound effects aren't anything new, playability-wise the characters jump and move around the screen as they should – even though some of the moves are ridiculously hard to pull off at the right moment – and you always want to play it again as soon as you die, but the simple fact of the matter is that Mortal Kombat 2's difficulty level is set way too high to warrant me giving it an unbelievably high score.

The two-player option works well, but only if you and a friend are at the same kind of beat-'em-up standard. The one-player game is just far too hard to complete and if you can get anywhere near the end of the tournament then you must be the world's best gamesplayer.

Even by switching the games difficulty level to very easy, you still can't progress properly. One go you might defeat three characters on the run, but then you'll meet up with a fighter who you couldn't

possibly defeat in a month of Sundays and it's more than likely you'll waste all your 30 credits in trying. Highly frustrating even for gamers with bags of patience.

Another downer is the outrageous amount of disk swapping that has to be done – surely somebody somewhere at Acclaim could have come up with a hard-drive installable version.

Tossing that comment aside, Mortal Kombat 2 is an astounding beat-'em-up that has been lovingly converted from the Megadrive version. Even if you have a casual interest in fighting games, you will want to get your boxing gloves around this, but watch out for that progress-thwarting difficulty level when you play it on your own.

Mortal Kombat 2 is a major improvement over the original, and in the years to come I'm sure it'll be heralded as a classic, only not by me.



Rasputin Software has got its head in the clouds quite literally! Well, at least its game has. Given the curious name *Base Jumpers*, it's basically a sports game - but with a difference. In fact, it involves climbing to the top of a high building and then throwing yourself off the top. It's not most people's idea of 'sport' but to the East Beckinsdale Pigeon Fanciers Association this is

INTRODUCTION

their favourite hobby.

The game is divided into two main sections, a platformer where you have to get to the top of the building, and the jumping off part - you have to race your opponents to the ground, avoiding the various obstacles and deciding just when you should open your parachute.



The platformer element means avoiding the obstacles and getting to the top in the fastest possible time



Dive to the bottom before your opponents - but remember to open your parachute in time

Base Jumpers



Base Jumpers may look quite basic but at least it's different!

SOUND

The intro tune that starts the game is typical lively game music and works well enough. Sound effects are good and are mainly there to create humour. For example there is the horrible squeal noise that occurs when your limbs fly off if you hit a drainpipe, or the good "Yeehar!" sound as all the jumpers throw themselves off the building. Other effects like springs, bombs and crashes add to the fun.

58%

GRAPHICS

Base Jumpers doesn't look the most wonderful of games. There are no 3D rendered graphics, no ray-traced effects, no futuristic backgrounds but hey, we've seen what happens to playability when you do have all these things (mentioning no games in particular!) So luckily, Rasputin has concentrated on things that really matter like gameplay.

The graphics aren't bad, by any standards. They do they're job well enough and the cartoon-style sprites are quite charming. The background for the platform section is designed around the puzzle elements like using stairs, springs and laser beams, rather than an intention to prettify the game. More functional than fancy.

50%



Publisher: Paradise
Developer: Rasputin Software
Units: £25.99
Price: £25.99
Genre: Arcade
Hard disk install: No
Control: Joystick
Support: 1550 0800/1200
Recommended: 8800 onwards



OPINION

70%

At first it's easy to pass this game off without so much as a second glance. You may even scorn at its simplistic graphics, but play it and play it again with one, two or three friends and you'll find it a really fun game.

Rasputin has done a fine job in mixing as many possible types of game into one. First you have the platform section where you'll have to negotiate all the spikes, lasers and springs to get to the top of the building, then billions of sub-games like beat-'em-ups and Portal Wombat, where you need to bash your

opponent up a bit. And finally, the Base Jumping itself where you try and race your two opponents to the ground, opening your parachute at the last possible moment.

There are some classic comedy moments in this game, such as in *Mortal Wombat* where the death move is a falling sheep (you had to be there) or when you barge your opponent into a drainpipe, resulting in a rather gory squelch and their bloody limbs falling off! The cartoon speech bubbles are also a nice touch, like the odd "Oops" or "Yikes" as you head towards the ground too fast.

Base Jumpers is a great game. It's original, which

instantly earns it extra Brownie points, it's fun and it doesn't take itself too seriously. I don't know how long the game would last you but it really does come into its own when you have the multi-player option on, and for a competitive game with a bit of humour you can't go far wrong!



OPEN ALL HOURS

WELL, NEARLY!
9am-10pm Mon-Sat
10am-6pm Sun

SPECIAL OFFERS!!

IDE HARD DRIVES FOR A600/A1200

170 MB	£139
245 MB	£159
345 MB	£189
420 MB	£219

INCLUDING FREE COLLECTION AND FITTING SERVICE
IF REQUIRED (3 WORKING DAYS TURNAROUND).

A1200 RAM EXPANSIONS

2Mb	£109.95
4Mb	£174.95

INCLUDING BATTERY BACKED CLOCK AND
SOCKET FOR OPTIONAL FPU

PRINTERS & RIBBONS

Star LC100 Colour	£129.00
Epson Stylus 400 Inkjet	£189.00
Epson Stylus 800 Inkjet	£249.00
Epson Stylus Colour 720dpi	£439.00
Seikosha SL96 24 Pin Col	£160.00
HP310 Colour Inkjet	£229.00
HP310 + Auto Sheet Feeder	£269.00

WE STOCK A WIDE RANGE OF RIBBONS
AT LOW PRICES - PLEASE CALL

LEADS & CABLES

Printer Lead	£3.99
Serial	£4.99
Null Modem	£5.99
Joystick Extender 3 metre	£3.99
Joystick/Mouse Extender	£3.99
Amiga to SCART	£7.99
Amiga to 1084S/8833	£7.99
Analogue Joystick Adapter	£4.99
4 Player Adapter	£5.99
Parnet Cable	£8.99

TRACTORFEED DISK LABELS

Now you can print your own professional disk labels!
500 Plain white disk labels on tractorfeed,
complete with FOUR disks of software and artwork.

**Yours for ONLY
£9.95**

**1000 Labels with software
ONLY £13.50**

AMIGA HARDWARE

Microvitec 1438 Monitor	£289.00
Cubscan 1440 Multisync	£389.00
External Floppy + Virus Killer	£56.95
A500 Internal Floppy Drive	£45.00
A500 512K Ram Exp + Clock	£19.99
A500 1.5 Meg Ram Exp	£76.95
A500+ 1 Meg Ram Exp	£29.00
A1200 2 Meg Ram Exp+Clock	£109.95
A1200 4 Meg Ram Exp+Clock	£169.00
A500/A600/A1200 Power Supply	£29.95
A600 1 Meg Ram Exp	£27.50
800 dpi Scanner	£99.95

THIS MONTH'S SPECIALS

DISKS AND LABELS

	GRADE A	GRADE B
DSDD 26p	24p	
DSHD 37p	32p	

100 DD+ BOX ONLY £26

STAR BUY FUJI BRANDED

DSDD Box of 10	£3.20
DSHD Box of 10	£5.99

STORAGE BOXES

Most types are available for 3.5" or 5.25" disks.

10 capacity	£0.95
20 capacity	£1.95
40 capacity	£2.99
50 capacity	£3.20
100 capacity	£3.40
80 capacity Banx drawer	£7.90
150 capacity Posso drawer	£15.95
200 capacity drawer	£11.95

VISIT OUR SHOP

9.30am-5.30pm Mon-Sat, 9.00am-1.00pm Thurs



MISCELLANEOUS

Mousehouse	£1.80
Mousetrap 6mm thick	£1.00
Mousetrap 9mm thick	£2.50
Amiga/Atari Mouse	£12.00
Diskdrive cleaner	£1.80
A500 Dustcover	£3.50
A600 Dustcover	£3.50
A1200 Dustcover	£3.50
Monitor Dustcover	£3.50
LC20 Dustcover	£3.50
LC100 Dustcover	£3.50
LC200 Dustcover	£3.50
LC24-200 Dustcover	£3.50
Roboshift	£12.50
Amiga Lightpen	£29.95
Optical Mouse	£32.00
Megamouse 400 DPI	£12.25
Alfadate Trackball	£26.95
Crystal Trackball	£32.00
Zydek/Truedox Trackball	£25.95
Zyli Amp/Speakers	£34.95
Zydek Pro Speakers	£49.00
80 Watt Speakers hi quality	£29.00
Action Replay Mk III	£56.95
Mini Master	£26.00
Tilt/Turn Monitor Stand	£9.95
2-piece Printer Stand	£3.49
Metal Printer Stand	£8.99
A4 Copypolder	£3.99
Metal Angle Poise Copy Holder	£14.95
Microplot Tractorfeed Paper: 500 sheets	£4.50
	2000 sheets: £14.95

JOYSTICKS

All joysticks have autorefire feature
except those marked *

Trigger Grip Models	
Quickshot turbo	£6.95
Python 1M	£7.95
Lightfighter	£11.95
Topstar	£18.95
Sigma Ray	£14.95
Base Fire Button Models	
Maverick 1M	£12.95
Zipstick	£11.95
Comp Pro 5000*	£10.95
Comp Pro Extra	£12.95
Comp Pro Star	£12.95
Cruiser Multicolour*	£9.95
Advanced Gravis Black	£24.95
Comp Pro Star MINI	£14.95
Aviator 1 Flightyoke	£22.95
Handheld Models	
Speedking	£10.50
Navigator	£13.95
Bug	£11.95

ANALOG JOYSTICKS

These Joysticks will fit any Amiga

Warrior 5	£14.95
Sattek Megagrip 3	£19.50
Speedking Analog	£13.95
Intruder 5	£25.50
Gravis Analog Pro	£39.00
Adaptor to use any PC analog joystick on an Amiga	ONLY £4.99

COMPUTER SUPPLIES
Direct
0782 206808
9am-10pm 7 days

BUSINESS HOURS
9am to 10pm Mon-Sat, 10am to 6pm Sun
All items and offers subject to availability. E&OE
48 Hour Delivery £3.30; 24 Hour Delivery £3.75
We accept POs, cheques & credit cards
Please write Cheque Card Number on cheque for instant clearance

BUSINESS AND EDUCATION ORDERS WELCOME All Prices Inc VAT

DIRECT COMPUTER SUPPLIES 36 HOPE STREET, HANLEY, STOKE-ON-TRENT ST1 5BS

SOFTWARE



VIRUS KILLER
A Virus Killer is an essential purchase in these days where there are hundreds of Amiga viruses. Make sure your software collection is free from all known viruses.
£4.00

VIP4-2. VIRUS KILLERS



Star Trek: The Game
Whereas 3 is good but Commodore failed to include a few things, like a virus killer, a secure file editor, a few security games, more characters, a tiny clock, a file explorer, a decent disk copier, a hard disk menu system and a few other things.
Only £3.00

SCF7-3. STUFF COMMODORE FORGOT



Star Trek: The Game
Whereas 3 is good but Commodore failed to include a few things, like a virus killer, a secure file editor, a few security games, more characters, a tiny clock, a file explorer, a decent disk copier, a hard disk menu system and a few other things.
Only £3.00

STG6-3. STAR TREK - THE GAME



Star Trek: The Game
Whereas 3 is good but Commodore failed to include a few things, like a virus killer, a secure file editor, a few security games, more characters, a tiny clock, a file explorer, a decent disk copier, a hard disk menu system and a few other things.
Only £3.00

GRN3-1. 3D GARDEN DESIGNER



3D Garden Designer
A two disk collection of various Scala background textures. Wood, paper, etc. Gives your Scala production a more professional finish.
Only £6.00

SCA6-2. SCALA BACKDROPS



Scala Backdrops
Make your own backgrounds and save CDS. Sound samples, menu expansions, Bridgeboards are all here. Includes complete diagrams.
Only £4.00

HWP4-2. HARDWARE PROJECTS 2



Hardware Projects 2
Forty top quality computer projects for use with WPD3, Plusstream, Wordworth, D Paint 4 etc. etc.
Only £7.00

PSF7-3. COMPIGRAPHIC FONTS



CompiGraphic Fonts
Four all time classic board games. Scrabble, Cluedo, Snakes and Ladders, and Monopoly. Great fun for all the family.
Only £10.00

BDG10-4. BOARD GAMES



XCOPY
This is the most powerful Amiga disk duplicator available. The manufacturer claims it will copy every Amiga disk known to man. Includes size & hardware.
Special Price £29.95

SXCP30-1. XCOPY PRO.



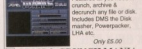
Xcopy Pro
Fifty stunning AGA images in 256 colours, on 10 disks. All of which will blow your mind.
Only £15.00

GRU15-0. BATHING BABES AGA.



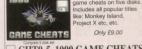
Bathing Babes AGA
News Maker allows you to create great looking documents. Try Desk Top Publishing for yourself and see just how brilliant it really is on the Amiga.
All for only £4.00

NRL4-1. NEWS MAKER



News Maker
Features all you need to create, archive & destroy any file or disk. Includes DMS Disk master, Powerpacker, LHA etc.
Only £5.00

CRM5-2. CRUNCH MANIA



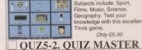
Crunch Mania
Over 1000 Top Amiga game cheats on five disks. Includes all popular titles. Includes: Star Trek, Project X etc. etc.
Only £9.00

CHT9-5. 1000 GAME CHEATS



1000 Game Cheats
Over 70 top quality Imagine objects on five great disks. Subjects include: Vehicles, Animals, Star Trek and loads more miscellaneous objects.
Only £10.00

JOD10-5. IMAGINE OBJECTS 2



Imagine Objects 2
Hundreds of general knowledge questions. Subjects include: Sport, Film, Music, Science, Geography. Test your knowledge with the excellent Trivia game.
Only £5.00

QUZ5-2. QUIZ MASTER



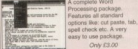
Quiz Master
Run PCAT software on your Amiga. Supports VGA on the A1200 or A4000. Works with your Hard Disk, Floppy Drive, Serial, Parallel & mouse ports. Runs Windows etc.
£99.95

PCT90-1. PC TASK 3 AT



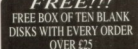
MIND TEASERS!!
A superb three disk set of fascinating mind teasers. Over 10 brilliant Puzzle games. You'll be hooked in minutes.
Only £7.00

TXE3-1. WORD PROCESSING

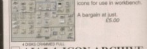


Word Processing
A complete Word Processing package. Features all standard options like: cut, paste, tab, spell check etc. A very easy to use package.
Only £3.00

FREE BOX OF TEN BLANK DISKS WITH EVERY ORDER OVER £25



DEG4-2. A1200 DEGRADERS



A1200 Degraders
A new set of 4 disks containing numerous printer drivers, printer drivers, label reader, address programs, game manager, and other useful tools.
Only £7.00

PR7-4. PRINTER TONES 2



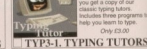
Printer Tones 2
Over 3,500 top quality Amiga scores for use in wordbricks.
A bargain at just £5.00

ATA5-4. ICON ARCHIVE



Icon Archive
If you want to be a looking on the loose or forget then THE GOURMET COOK BOOK is a great way to get started. Over 50 recipes included.
Only £3.00

GCB3-1. THE COOK BOOK



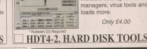
The Cook Book
Over 130 stunning full colour Lion King report images for use in any Paint or Desk Top Publishing package.
All 3 disks only £7.00

LKA6-3. THE LION KING Clipart



The Lion King Clipart
Learning to type can be a difficult task, but not when you get a copy of our classic typing tutors. Includes three programs to help you learn to type.
Only £3.00

TYP3-1. TYPING TUTORS



Typing Tutors
Whether you want to learn two Amiga to keyboard, or 2 PCs or Amiga to PC, then this package will suit you. Easy to install.
Only £8.00

COM8-3. NETWORKING



Networking
An essential package for all Hard Disk owners, includes backup tools, file managers, virus tools and loads more.
Only £4.00

HD74-2. HARD DISK TOOLS

Priority Order Form

Name _____

Address _____

Amiga model _____ Payment _____

Credit Card No _____

Exp _____

All order images are stored on 5 1/4" so they can be used as an Amiga GTP or print package. Prices TX 12-4 & WPD3-2 require some knowledge of LHA, which is supplied with these items.

Kickstart 2/3 means you require an A1200-0, A4000, A1200 or any machine fitted with Kickstart 2 or 3.

AGA means you will require either an A1200 or A4000 to use that particular title.

Order Value

AMOUNT OF PACKS	QUANTITY	PRICE
XXXXXX PACK TITLE		
Other items		
Total goods value		
Postage & Packing		
Amount excluded		

ALL TITLES ADVERTISED ARE IN STOCK READY FOR DISPATCH

Ordering by post

Simply send a written order with a list of the disks you require, or simply tick the boxes of the titles you require. All in one state and address, return or photograph the page with it along with full payment to: Epic Marketing, 138-139 Victoria Rd, Swindon, Wiltshire, SN1 3BU.

Ordering by disk

PK disks can be collected from the list. If you wish to have large order prices, a free home printed to disk.

Overseas orders

Overseas orders are welcome, but please add £1.00 to each disk ordered, a 4% postage & packing.

Postage & Packing

Postage add a further £1.00 per disk in UK. Overseas orders add £1.00 per disk in UK. Overseas orders add £1.00 per disk in UK. Overseas orders add £1.00 per disk in UK.

Refund policy

All disk orders should be sent to any Amiga sales agent, or direct to the source of the disks you require. All disk orders should be sent to any Amiga sales agent, or direct to the source of the disks you require.

CD32 LINKUP

Connect your CD32 to your Amiga for easy transfer of all CD ROM data. Complete with leads + CD ROM boot software.

■ CD32-1... Only £34.95 + £1.00 P&P


Order hotline: 0793 490988 Fax: 514187




MEGB3-1. MEGABALL AGA

Magiball V3 is most definitely the best ever "Break-out" game available. Superb AGA graphics, music and gameplay make this an all time classic.

Only £3.00



GG10-4. 101 GAMES

Over 100 all time classic games including: Breakout, Pacman, Space Invaders, Snakes, loads of puzzle games and more.

Only £10.00



ILR3-1. ROBOT OBJECTS

Features numerous LightSaves & Imagine objects of Robots and Robot related items.

Requires min 2Mb RAM.

Only £3.00



WGB2-5. WORKBENCH BACKDROPS

A selection of superb giny pictures to place in the background of your Workbench.

Only £5.00



Word Processing Spreadsheet Diary

Whether you run a small business or just need to go computerised then this superb easy to use integrated package is what you want.

£7.00



IFC7-3. LITTLE OFFICE

This is the most impressive AGA demonstration available. If you want to impress someone, then this is what will do it. Features a full 3D soundboard.

Only £4.00



BTS4-2. BIG TIME SENSUALITY

Large range of Textures for use in Imagine. Render your objects in a variety of shades, colours and textures. Compatible with all Amigas.

Only £12.00



ITX12-7. IMAGINE TEXTURES

A compilation of very powerful disk copiers, make backups of your software collection with ease.

Only £5.00



CPY5-2. DISK COPIERS

Severely blimped tools for use in almost any package including Deluxe Paint. Also features a fantastic font editor for designing or customising your own fonts.

Only £7.00



FNT7-3. FONTS & EDITOR

Text is the most addictive game in the world, and this is a fact. This is a compilation of five of the best. Best graphics, best sound and best playability.

Only £9.00



TET9-5. TETRIS MAYHEM



ENG9-5. INSIDE ENGINES

Inside Engines is a compilation of in-depth animation sequences showing you the workings of all the most popular engine types.

Only £9.00



GFX13-10. PRO CLIPART

Hundreds of high quality professional clipart images. Subjects include: Transport, People, Computers, Xmas and loads more. A much wider scope.

Only £13.00



SPES-3. SPECCY EMULATOR 2 £5.00

Play 100s of all time classic Spectrum games on your Amiga. Inc. Jet Set Willy, Attraxx, Star Trek, Urduin and loads more.

Only £5.00



ARC6-4. ARCADE CLASSICS

A selection of printer drivers including all popular printers such as: Hewlett Packard, Star, Panasonic, Epson, IBM, OKI, Seiko, Postscript etc.

Only £3.00



VID12-6. VIDEO STUFF

Contains a selection of Video filters, Video wipes & backdrops. Great for home movies. All your creating.

Only £12.00



ABG9-5. BEGINNER'S GUIDE

A collection of Amiga card games including: Poker, Craps, Solitaire etc. Great fun for all the family.

Only £10.00



CRD10-4. CARD GAMES

Over 500 Workbench 2 or 3 utilities/tools, including: text editors, visual killers, disk editors, sound & graphic tools and loads more.

Only £3.00



TTU3-1. 203 UTILITIES

A new collection of tools for WB 2/3 utilities. Includes: visual killers, audio tools, disk tools, HD tools, and loads of other stuff. It's take you ages to go through this.

£5.00




ATC5-2. POWERTOOLS

A range of digit for use with subjects. Contains subjects of subjects including: People, Vehicles, Animals, Computers, Sport etc. etc.

Only £3.00



MPC3-1. PAGESSETTER ART



ENK3-1. ENGINEER'S KIT

The complete system analyser. Test your drives, memory, keyboard, mouse, expansions and all your custom chips etc.


Only £3.00



SAM7-5. IFF SAMPLES

Hundreds of high quality IFF samples, including: drums, guitars, bass, vocals and beats. Perfect for Music X, Med or any teacher class.


Only £7.00



AMINET 4 CD ROM

Thousands of archived tools, including: patches, Dir tools, music, graphics, AGA tools, workbench tools. It's take you months to off through this.

Only £19.99



AHID-2. HARD DISK INSTALLER

An essential tool for installing workbench on your new hard disk. Easy to use either on the A600 or A1200.

Only £7.00



CTG5-3. CATALOGUERS

Organise your entertainment media with this set of cataloguing tools. Video, CD and disks are all covered on a step by step basis.

Only £5.00



GFC5-2. GFX CONVERTER

Convert graphics formats between PCX, GIF, IFF, TIF etc. Easy to use.

Only £3.00



JIT4-1. CHESS & TUTOR

A new collection of 5 brilliant disks crammed with colour clipart images. Subjects include: Cats, dogs, plants, animals, comical, vehicles, ships etc.

Only £3.00



LPW5-1. LOTTERY WINNER PRO.

LOTTERY WINNER PROFESSIONAL can predict the National Lottery results with as little as only a couple of months back data. The more data you input the more accurate the results.


Only £5.00



CENTROFOLD SQUARES

Another great puzzle game for adults. A part of the best, a packet of poems and a good game of Centrefold Squares. "What a life!"

Now Only £9.00



CDPD IV COLLECTION

Over 3,000 AGA pictures of beautiful scenes, animals, games and objects, and loads more.

Only £19.95



ADULT SENSATION CD

NEW! NEW! Features the Spectrum Emulator and over 100 all time classic Spectrum games on one CD ROM.

Only £19.95



SPECCY SENSATION CD

Thousands of archived tools, including: patches, Dir tools, music, graphics, AGA tools, workbench tools. It's take you months to off through this.

Only £19.99



AMINET 4 CD ROM

If you like to have a little better then this is for you. Contains a number of brilliant gaming games. Includes Russian, Craps, Trivia machine, etc.

Only £6.00



ABS6-4. BETTING SHOP

Play Poker with some of the most lovely ladies in the world. Great fun for all the family. NOT! Includes super graphics and digitised speech.

Now Only £10.00



DSPI0-1. DELUXE STRIP POKER 2

Whether you're a complete beginner at chess or a champion, J-CHESS has something for you. Superb graphics and speech make this a great software title.

Only £4.00



JIT4-1. CHESS & TUTOR

A new collection of 5 brilliant disks crammed with colour clipart images. Subjects include: Cats, dogs, plants, animals, comical, vehicles, ships etc.

Only £3.00



CCP9-5. COLOUR CLIPART SET

A collection of great fun educational games for children under 12. Maths, spelling, speed, etc. are all included in this excellent collection.

Only £9.00



EDU9-4. EDUCATIONAL

Slip one people from accessing your floppy or hard disks, by putting a customised password on your disk. Also contains file encryption tools.

Only £10.00



PASSWORD ENCRYPTOR

LOOM

Rather an unusual game this one! It's more fantasy based than the other adventures in this pack, so adds variety.

You play the role of Bobbin Threadbare, a young boy with a magical knowledge who sets out across the land, interacting with other characters and solving mysteries. Bobbin is an inexperienced member of the Guild of Weavers and as the game progresses he learns more about his power and the magic of the Loom.

Most LucasArts adventures, like Loom, ensure the gameplay doesn't constantly frustrate you by dying all the time. In Loom nothing can actually 'kill' you as such, and you never find yourself in a situation from which you can't escape – all the answers are somewhere nearby.

Loom is definitely something rather different than your usual adventures and the magical theme works well. Unfortunately though, the graphics aren't all that spectacular and really do look their age.



Loom provides a different and original idea



For a more fantasy-based adventure Loom will be your thing

US Gold's budget label, Kixx XL, is feeling somewhat generous this year and has put together a couple of collectable selections from the highly respected developers, LucasArts and Delphine.

LucasArts was founded by George Lucas, creator of Steven Spielberg-produced blockbusters such as Star Wars and Indiana Jones, and has become renowned for some of the all-time classic adventure games.

This particular collection houses The Secret of Monkey Island, Loom, Zak McKracken and the Alien Mindbenders, Maniac Mansion and Indiana Jones and the Last Crusade.

INTRODUCTION

LucasArts

Stuck for what to buy your Valentine this February 14th?

Try the latest Classic Collections from Kixx XLedition!

INDIANA JONES AND THE LAST CRUSADE

This rather old film license holds quite a few pleasant surprises and despite its dated graphics, is still fun to play. As you can probably guess, it follows the exploits of Indiana Jones and his quest to find the Holy Grail.

Throughout most of the game you can follow the course that Indy took in the actual movie, or find other alternatives to complete the mission.

The game is your usual point 'n' click adventure but you can combine this with an arcade-style gameplay which adds variety – so rather than outsmarting someone you are given the option to throw a punch and start a fight instead, which gives your mind a break from the puzzling.

If you can forgive the rather basic graphics and take a closer look at this title you will find it a very entertaining adventure.



Forgive the basic look of the game and you'll find an intriguing adventure

THE SECRET OF MONKEY ISLAND

Probably one of the most popular adventures ever, Monkey Island set new standards in adventure gaming and has been the title that many adventures have aspired to.

You play the part of Guybrush Threepwood who has the strange ambition in life to become a swashbuckling pirate. He travels to the Island Of Melee in the hope of fulfilling his ambition, and must complete The Three Trials to prove he is worthy of becoming a Pirate. Once completed, he can then go on to discover the secret of neighbouring Monkey Island.

As with all these games, it is a point 'n' click adventure and by constructing a sentence with the list of verbs and nouns you can easily carry out your actions – this makes the game simple to control.

Monkey Island is also a lot more superior to other adventures in that it has a unique witty style and a quirky sense of humour running throughout. There is a nice mix of gags, both visual and textual, and the repartee between characters works brilliantly.

The graphics are also in a class of their own, even now, with atmospheric scenes ranging from the Pirates bar to the dingy streets, and the slick animated sequences really make this title exceptional. An old classic which doesn't seem to age!

Graphically, Monkey Island still holds its own against some of today's adventures



MANIAC MANSION

Taking up every possible horror cliché in the book and turning it into a game sounds like a recipe for disaster. That is, of course, unless you turn it into a spoof! This is exactly what Maniac Mansion is and a very good game it makes too.

Dr. Fred is the mad scientist. He lives in a mansion with Nurse Edna – a former health care professional whose hobbies would make a sailor blush – Weird Ed – a teenage commando with a hamster fetish – and Dead Cousin Ted. It's not surprising then that strange things start happening, especially when a young Cheerleader has been kidnapped by Dr. Fred and is being held in his basement.

And there you have the perfect ingredients for a manic dose of mayhem which is exactly

what you get when you play Maniac Mansion. You take control of a group of college students who want to get in to the house and rescue Sandy. Depending on the team you pick, you'll find the game takes different twists and turns because all the teenagers have their own different skills and talents.

This all works well, with the quirky humour and bizarre puzzles gelling together. Maniac Mansion, like other LucasArts games, contains 'cut-scenes' that are movie-like sequences which further the storyline. This title gives you all sorts of amusing interludes, like the mad professor telling the cheerleader she won't escape, and her tantrums!

Again though, don't expect ANY stunning graphics!



This spoof horror game provides a giggle or two

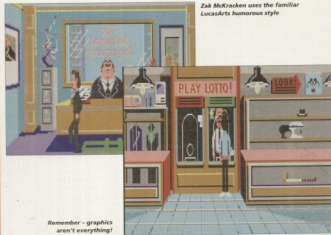
Collection

ZAK MCKRACKEN AND THE ALIEN MINDBENDERS

A strange title and an even stranger game! It takes place in the future when space aliens have built a stupidity machine which is reducing the populations IQ! The fate of earth lies in one chap's hands, Zak McKracken – a reporter not exactly known for his factual stories. So when he breaks this particular story there are few who believe him except for Annie, head of the Society for Ancient Wisdom, and her two friends who have travelled to Mars in their modified van!

You control Zak and the three others in a mission to uncover the aliens and destroy the stupidity machine. To play you can switch between the characters, and must interact with all other weirdos you might come across to pick up clues. If you get stuck you can refer back to Zak's paper – the National Inquisitor – which will give you vital hints to the game.

Zak McKracken is certainly not the most technically advanced of adventure games nor the wittiest, but it is quite fun and provides a challenge.



Zak McKracken uses the familiar LucasArts humorous style

Remember – graphics aren't everything!

Publisher: (UK) NI
Developer: LUCASARTS
Discs: N/A
Price: £29.99
Genre: Adventure
Hard disk install: Yes
Control system: Mouse/KEYBOARD
Supports: VGA (640,480)/286
Recommended: N/A

OPINION

75%

Any games compilation that offers five games for only £30 is value for money (that's only six quid a game, ya know!). And in this instance, it's not just a bundle of any old stuff! In bringing out a collection by a certain developer, it looks more complete and makes a nice gift idea.

However, a lot of these games have been out for quite a while and it's likely that older games players will have bought these first time round or on their budget release. Newcomers to Amiga gaming should snap up this pack though and see just where the roots of adventure games came from!

The titles are all similar to control and there are a good variety of subjects from aliens to pirates! If modern visuals are top of you're list of priorities then it might not be your bag, but for traditional playability this is definitely worth a look.



TO ORDER BY PHONE OR FAX
TEL (01924) 369882 FAX: (01924) 200943
All Major Cards Inc. Switch & American Express

TO ORDER BY POST
Send Cheques / P.O.s Payable To:
17 BIT SOFTWARE

1st Floor Offices, 2/8 Market Street
Wakefield, W. Yorks WF1 1DH

DISK PRICES
1 To 10 Disks £1.50
11 To 20 Disks £1.25
21 Disks Or More £1.00
1 Free With Every 10 You Order!
UK Postage 50p On Disc Orders
Europe Add 10%, R.O.W Add 20%
Of Total Order Value.
Min Overseas Postage £1.00

PLEASE NOTE
Disks With (AB) Etc. After The Name
Denotes A Multiple Disk Title
PLEASE STATE WHEN ORDERING
Send An S.A.E. For A Complete
List Of Our P.O. Licences
And CD-ROM Titles

AMIGA PUBLIC DOMAIN

3483 NEW UTILS #2
Includes Dopus Clone
3482 NEW UTILS #1
Includes Amiga Workstation
3481 ROBS HOT GAMES #10
More Super Games!
3480 (AB) LURKING SHADOWS
New Hardcore Rave Demo!
3479 MADE IN PORTUGAL
Various Utility Compilation
3478 GUI DISK
Create GUI's For Programs
3477 OFFICE UTILS
Invoices, Reminders Etc.
3476 GFX UTILS
Various GFX Util's
3475 ROBS HOT STASH #23
They Just Keep Coming!
3474 THIRD DIMENSION #5
More 3D Baster For Users.
3473 DFA V2.2
Address Base HD Req
3472 MIDNIGHT V2.06
Superb Modular Screen Blanker
3471 MAGIC WB EXTRAS
Brushes & Icons
X3470 D&D CARDSSET
Fantasy Cardsets For Klondike
3469 ROBS HOT STASH #22
More New Bits & Bats!
X3468 SAILORMOON CARDSSET
For Klondike
3467 RAINMA CARDSSET
Even More Cards!
3466 ROBS HOT STASH #21
ONE PACKED Disk!
3465 THE ULTIMATE QUIZ #2
Test Your Knowledge
3464 F1 GP ED V2.04
Latest Update
3463 (AB) LUCIFER MUSIC
Unholy Innocence
3462 OBSTACLE GAME
A 15 Level Preview!
X3461 (AB) THE WEATHERGUIDE
Meteorological Education
3460 (AB) DIFFERENT APPROACH
A Photographic Lecture
3459 XENEX
Asteroids Type Game
3458 (ABCD) LIGHTWAVE OBJECTS
Well Over 100 Objects!
3457 METAFORM TUTORIAL
For Lightwave 3D
X3456 256 COLOUR ICONS
For Use With WB3.0 Only
X3455 DELUXE GALAXY V2.4
Great Space Shootem!
3454 ROBS HOT STASH #20
Loads More Mega Util's!
3453 FREE FORM 3D V1.88
G30+ FPU Required

3452 ROBS HOT STASH #19
You Guesed It. More Util's!
3451 MOSAIC / AMITCP V1.2
Internet Util's
3450 (AB) AMITCP V3.0
Internet Software
3449 BIG DUMMIES GUIDE
For The Internet Of Course
3448 LIGHTWAVE OBJECTS
2 Big Objects & Macros
3447 IMAGINE OBJECTS
Williams F1, Jumbo Jet
3446 (AB) MISSILES CYBER XERION
Missile Command Clone
3445 (ABC) DEED OF NIGHT
Multi Language Graphic Adventure
3444 PROTTLER
Video Tiling Stuff
3443 MENUS & MORE 3.12
Menu Util's Etc.
ROBS HOT STASH #18
HD Required For These
3441 VIRUS WORKSHOP 4.03
Up-to Date Virus Killers
3440 VMEM V2.1
Needs An M.M.U.
3439 IMAGINE OBJECTS
Babylon 5 Stuff
X3438 FAST CARS CARDSSET
For Klondike
3437 (AB) EAGLEPLAYER V1.53
Bugfixed Version
3436 EPU DISK STAKKER V1.70
Compress Your Hard Drive!
3435 G-BLANKER V3.5
Screen Blanking Util
3434 G-BLANKER V3.0
As Above, Needs 030 Chip
3433 ROBS HOT STASH #17
3432 ROBS HOT STASH #16
Another Hot Util Stash!
3431 (ABC) NFA PRESENTS
Claudia Schiffer Pls!
3430 THIRD DIMENSION #6
3429 THIRD DIMENSION #5
3428 THIRD DIMENSION #4
3427 THIRD DIMENSION #3
3426 THIRD DIMENSION #2
3425 THIRD DIMENSION #1
New Series Of Amiga Diskmags
3424 (ABC) BODYSHOP 8
Nice Glamour Pictures!
3423 MANGLED FENDERS
Stock Car Type Game
3422 TERM V4.1A EXTRAS
Archived. With No Install!
3421 TERM V4.1A O30 VERSION
Includes Docs. Archived.
3420 TERM V4.1A
Normal Version With Docs
3419 MULTI USER V1.8
Hard Drive Protection Util.

3418 IMAGINE 3 BITS
Attributes & Fonts Etc.
3417 IMAGINE 3 BITS II
More Attributes & Fonts
3416 SCION V3.13
Genealogical Database
3415 VIDEO TRACKER V2.0
Latest Version!
3414 (AB) PAGESTREAM V3C PATCH
Pagestream Updater
3413 CYBERPUNK #3
Cyberpunk Magazine
3412 X-MEN CARDSSET
For Klondike
X3411 START TREK TNG
Cardset For Klondike
3410 MYTHOS GREEK
Greek Mythology Disk
3409 THIRD DIMENSION #7
3D Construction Kit Users Mag.
3408 FACES CARDSSET
3407 SWIMSUIT CARDSSET
For Klondike
3406 CG FONTS #20
3405 CG FONTS #19
3404 CG FONTS #18
Compugraphic Fonts Disks
3403 RADIATION V1.0
Excellent 3D Cons. Kit, Gamell
X3402 EMPIRE STRIKES BACK
X3401 RETURN OF THE JEDI
X3400 DR WHO CARDSSET
3399 CARTOON CLIPART II
Colour Cartoon Clipart!
3398 JUDGEMENT DAY
Nice Game!
3397 (ABCD) KLONDIKE 3 AGA
Best Version Available!
X3396 MARILYN MONROE CARDSSET
For Use With Klondike
3395 (ABC) THE ICON ARCHIVE
Over 3500 Icons!
3394 THE ICON ARCHIVE MWB
Magic Workbench Icon Archive!
3393 INDYCAR CHALLENGE
Car Racing / Management Game
3392 FLAMING ENGINES
A SUPERB Super Sprint Clone!
3391 CG FONTS #17
More CG Fonts
3390 BIRTHDATE HISTORY V2.21
What Happened When You Were Born?
3389 (AB) JINX
New Puzzle Game!
3388 MR BROWNSTONE
Boulderdash Type Game
3387 CHESS PUZZLES & TUTOR
No Chess Game Included!
3386 (AB) STARTREK GUIDE
Comprehensive Episode Guide
3385 (AB) MAG E ISSUE 5
More Sci Fi Stuff!

3384 SONIC DRUMKIT V2.0
Good Synth Drum Kit
3383 ROBS HOT STASH #15
Nice Nix Of New Util's
X3382 WB3.0 BACKDROPS
79 Superb Backdrops!
3381 ROBS HOT STASH #14
More Superb Util's
3380 (AB) GRAPEVINE 20
Yes! Its Here At Last!
3379 THE FAR SIDE SLIDES
Alternative Slideshow!
3378 SEKA 32 PRO
Adventure Compiler (Demo)
3377 SPELLTRIS
Spell Words As They Fall
3376 WORDPLAY
5 Word Puzzle Games
3375 M.U.I. V2.2
Enhance Workbench
3374 ROBS HOT STASH #13
Superb Hot Batch Of Util's
3373 ROBS HOT GAMES #9
2 Excellent Games
3372 MAGIC EXPANSION
For Use With M.U.I. & M.W.B.
3371 (ABCD) ADOBE FONTS
For Use With Imagine 3
3370 EVILS DOOM
Dungeon Master (C.P.)
X3369 COMPLY FREEWEE
Great AGA Only Demo
3368 CASSINI V3.2
Detailed Astronomy Prog
3367 ZYRAD II
Puzzle / Arcade Action
3366 ROCKETS
Great Thrust Clone!
3365 AREXX GUIDE
Beginners Start Here
3364 KIDS DISK 6
More Educational Stuff
3363 TEE TO GREEN V1.1
Golf Scorer & Stats
3362 PCBBOARD
PCB Designer
3361 SANTA & RUDOLPH
Excellent Platformer!
3360 IMAGE STUDIO
Image Conversion Etc.
3359 CG FONTS #16
3358 CG FONTS #15
3357 CG FONTS #14
More Luvly Gen CG Fonts!
3356 CG FONTS #12
Compugraphic Font Sets
3354 F.O.P. 6
Ottamed Music Disk
X3353 STARWARS CARDSSET
For Klondike
X3352 SOME JUSTICE DEMO
Mega AGA Demo!

IMAGINE USERS!

We Now Have Yet ANOTHER
Pack Of Imagine Objects Covering
LOADS Of Different Subjects!
The Pack Is Spread Over 15 Disks
Which Are Individually Available At
Normal P.O. Prices.

If You Decide To Be A Devil And
Go For All 15 Disks, We'll Do You
Thee At A Special Price Of £14.95!

F1 LICENCEWARE

F1 PRICES

- 1 DISK F1 TITLE £3.99
- 2 DISK F1 TITLE £4.99
- 3 DISK F1 TITLE £5.99
- 4 DISK F1 TITLE £6.99
- 5 DISK F1 TITLE £7.99

THE NUMBER IN BRACKETS AFTER THE
DISK CODE DENOTES THE NUMBER OF
DISKS IN THAT SET

- F1 045 T-TEC MAZE
- F1 044 (3) BLACKBOARD V3.0
- F1 043 (5) MAGPIES CLIPART
- F1 042 (2) KIDS CLIPART
- F1 041 GP MANAGER 94
- F1 040 (2) HENRY'S HOUSE
- F1 039 TWO CAN PLAY
- F1 038 AMBASSADOR PRO
- F1 037 SUPER BINGO V2
- F1 036 MONEY CASCADE
- F1 035 (3) CHILLY CHAVEZ
- F1 034 F1 CHALLENGE V2
- F1 033 POWERPLANNER V1.1
- F1 032 WORD POWER V2.0
- F1 031 POWERBASE V3.30
- F1 030 FORTRESS 1 MEG

- F1 029 (2) AERO DIE NAMIX
- F1 028 CLINDEX V1.0
- F1 027 THE STATES OF EUROPE
- F1 026 TAKE A LOOK AT EUROPE
- F1 025 (2) ART SCHOOL V1.1
- F1 024 MATHS MONKEY
- F1 023 PICK N STICK
- F1 022 ASK ME ANOTHER
- F1 021 MULTIPAYER YAHTZEE
- F1 020 IMPACT
- F1 019 TOUCH N GO
- F1 018 (4) RELICS OF DELDRONEVE
- F1 017 F1 MUSIC VOL #1
- F1 016 ART SCHOOL
- F1 014 TOTS TIME
- F1 013 THROUGH THE RED DOOR

PLEASE NOTE
AS FROM 1ST JANUARY 1995
WE NO LONGER STOCK C.L.R
DISKS. PLEASE DO NOT ORDER
THEM AFTER THIS DATE AS WE
WILL NOT SUPPLY THEM. THANKS

TRADE ENQUIRIES WELCOME
ON ALL OUR CD'S CALL OR FAX
FOR DETAILS.

CD ROM POSTAGE
Please Add 75p Per CD
For UK Postage And Packing
(MAX £1.50)
Overseas Please Add £1.00
Per CD (MAX £5.00)

173i
Software
EST 1988

AMIGA CD ROM



17 BIT COLLECTION £34.99
2 CD's Containing 1700 Disks
From Our Own Library. All Titles
Are Easily De-Archived Via A
Simple To Use Menu.



17 BIT CONTINUATION £19.99
Disk 3 Of The Series, This One
Contains Disks 2301 To 2800 Of
Our Library With The Added
Bonus Of Several Other Ranges
Including The Assassins Disks!



AMINET III [JULY 1994] £17.99
Easily A Top Seller, This CD
Contains 650 MB Of The Aminet
Archives From The Internet.
Something For Everyone Here!



DEMO CD II £17.99
For Those That Like A Broad
Spectrum Of Titles From The
Demo World, This CD Is Ideal.
Demos, Intros, Anim's & Mods.



DEMO CD £17.99
A Little Dated Now, But Still
Contains Some Classic Software.
Loads Of Music Mods, Demos,
Anim's Etc.



CDPD 4 £19.99
Contains Fish From 890 To 1000.
Complete GNU C++ Compiler
With Includes, Loads Of Image
Objects & Lots More Besides!



CDPD 3 £19.99
Contains Fish From 761 To 890,
Ready To Run & In Archived
Form. Dozens Of Original 24 Bit
Scans & Loads Of Clipart



CDPD II £17.99
Contains Fish From 661 To 760,
The Entire Scope Disk Collection
Up To Disk 220, The AB20
Archives Plus Much More



CDPD £17.99
The Very First CDPD ROM.
This Title Includes All The Fred
Fish Disks From 1 To 660, Plus
Pictures, Scans & More.



EMERALD MINES CD £14.99
CD32 Or Zappo Drives Only.
This CD Contains Over 10,000
Levels Of The Classic Emerald
Mine Games!



PRO FONTS £19.99
Over 4000 Adobe Type 1 Fonts,
1500 True Types, 200 CG Fonts
And A Whole Boatload Of PCX,
GIF, EPS & TIF Clipart!



GIFS GALORE CD £19.99
Contains Over 5000 Full Colour
GIF Images From Over 40
Subjects Inc. Art, Cars, Fractals,
Space, Swimsuit, Raytrace Etc.



EUROSCENE 1 £14.99
If You Want Nothing But Music &
graphics Demos, Then This CD
Is For You. Includes Demos
From The Gathering 93 & 94!



SPACE & ASTRONOMY £19.99
Suprising Popular CD
Containing Images Taken From
Deep Space Probes, Along With
Over 5000 Official NASA Texts!



MULTIMEDIA TOOLKIT £19.99
Another Popular Title, Contains
5000 24 Bit Images With Ham &
Ham's Versions and Loads Of
Fonts, Clipart, Mods & Samples



VIDEO CREATOR £29.99
Use Your A1200 Or CD32 To
Produce Superb Dance Videos.
Graphics & Effects Have Been
Included To Help Get Started



AMOS USERS CD £19.99
If You Have Amos & A CD ROM,
Then This Disc Will Prove To Be
Invaluable. Includes Source,
Sprite & Music Banks As Well As
The Entire Amos PD Library!



SOUNDS TERRIFIC £19.99
A Superb Double CD Collection
Containing Over 12 GIGS Of
Music Modules & Sound Effects!
Superb Value For Money!



WEIRD SCIENCE FONTS £9.99
This Excellent Budget Fonts Disk
Contains Thousands Of Fonts
From The Following Types: -CG,
Adobe, IFF, PCX, PS & MORE!



W'S CLIPART £9.99
Another Superb Budget CD!
Includes The Following Formats:-
Postscript, Pagemaker, EPS,
IMG, IFF And More!



NETWORK CD £14.99
Link Your CD32 To Any Other
Amiga For CD Access. Requires
Sernet Cable Available Separately
For £19.99.



CLIPART & FONTS [USA] £9.99
Reduced In Price Due To The
Influx Of Clipart & Font CD's.
Contains EPS, IFF & PCX Clipart
With Adobe & PS Fonts.



MUSIC MOD & SFX £9.99
Another Budget Offering. If 2
CD's Of Modules Is too Much,
Then Try This One! 2800+
Modules And Over 6300 Samples!



AMINET 4 [NOV 94] £17.99
Over 330 MB Of NEW Data From
The Internet Since The Aminet 3.
This One Has A Bias Towards
Music & Utilities.



THE ASSASSINS CD £19.99
Hundreds Of Games For All CD
Platforms Including CD32!!
Superb Menu Enables ALL
Games To Run Direct From CDI



THE LIGHT ROOM £39.99
Almost 650 MB Of Objects,
Images, Scenes, Attribs, Maps &
Textures in IFF & Targa Format
If You Use LIGHTWAVE Then
YOU MUST GET THIS CDI!



17 BIT PHASE 4 £19.99
The Sequel To The Sequell
Contains Our Latest Disks From
2801 To 3351, Presented Via
The Easy To Use Menu You All
Like So Much!



MICROCOSM £29.99
CD32 Or Zappo CD Oblivion!
Superb Rendered Intro, And
The Game Is Quite Good Too!
Limited Stocks.



LSO COMPILUM DELUXE £19.99
You Name It, You Will Find It On
Here! Games, Demos, Mods,
Fabled LSD Legal Tools
Collection! Yours For £19.99!



TOWER ASSAULT £25.99
Simply Stunning Arcade Action
For Your CD32. The Intro Alone
Is Well Worth The Cash But The
Game Is AWESOME!

W

hen Desert Strike, already a big hit on the Mega Drive, finally made it across to the Amiga, it was hailed as a highly successful conversion.

A thinly disguised celebration of the Gulf War, it gave gamers a chance to whop Saddam Hussein's ass all on their own. Tasteless

INTRODUCTION

though this idea may be, there can be no denying that it was successfully implemented thanks to the game's highly addictive gameplay. Now Ocean has tried to improve on the original with a title that takes the battle to the jungle.

The comanche unleashes a Hydra to dispose of Campervan threat



STORYLINE

Son of Mad Nutter from Iraq has joined forces with the world's No. 1 Evil Drug Baron in a fiendish plot to overthrow law, order and the American way. The Special Forces becomes involved when a satellite registers a nuclear explosion in South America, signalling a new threat from our baddies.

Called into the Whitehouse, your first job is to defend the US capital from terrorist attacks,

collecting military intelligence along the way. However, you soon leave for foreign shores as the conflict takes you around the world in search of the Evil Baron.

There are nine different campaigns to fight your way through, each introduced with an animated briefing screen. Needless to say, it gets tougher and tougher as you progress. Given America's military might it seems a bit unfair that you have to do it all yourself, but that's the life of a hero for you.



Testing the co-pilot's accuracy with the winch



Tanks can bring you down in no time, so strike fast and sure



Never mind the period architecture as you blast the terrorist base

Jungle

SOUND

There's nothing much new in this department. The background rumbling of the rotor blades as your Comanche swoops into action is convincing, as is the sound of rockets being launched, followed by the resulting explosions.

One to avoid is the metallic clunk; hear that and you know you're out of ammo. It's sad's law that this will probably be at a time when you're staring down a tank's gaping gun barrel, so don't be ashamed to run away.

The music reminds me of Rambo films, being no better or worse than that. Overall the sound does the trick perfectly well, but a few more audio details would have given it an extra lift.

70%

FLASHBACK

Gunships work well as arcade vehicles, not least because they look impressive and carry a varied arsenal. Desert Strike showed that people enjoyed flying a realistic looking machine without worrying about Sim complications.

On the whole, Jungle Strike is an improvement on the original because of its more compelling missions and its interesting locations. Jungle is also preferable to a recent award winner, Zeewolf, which I felt was rather overrated. Not only are Jungle's graphics more impressive and faster scrolling, the overhead view makes for greater playability in my view



Publisher: Ocean Software
Developer: Ocean Software
Disks: 3
Price: £27.99
Genre: Shoot-'em-up
Hard disk install: No
Control: Joystick
Supports: All Amigas
Recommended: 98020

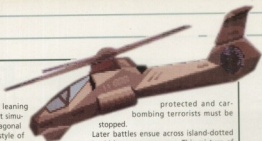
GRAPHICS

Jungle Strike follows its desert-based predecessor in its visual style, with a clear leaning towards arcade action rather than cockpit simulation. Everything is seen from a raised diagonal angle, allowing for a 3D shoot-'em-up style of play.

The detail of the landscapes and vehicles appears to be on the same par as the original, which is no bad thing. Vehicles and buildings are well detailed while your chopper takes centre stage as the most appealing sprite.

Where Jungle Strike really has been improved, however, is the fact that the action takes place in numerous different settings. Deserts, by their nature, are not the most varied of landscapes and the original game was too monotonously yellow for my liking.

Though the lush greenery of the jungle is your ultimate target for destruction, you actually start off piloting your Comanche round the streets of Washington DC. Here, instead of targetting the usual power stations and radar sites, embassies must be



protected and carbombing terrorists must be stopped.

Later battles ensue across island-dotted seas and cold barren snowscapes. This mixture of locations keeps the eye interested and provides a good incentive for seeing the next level.

The smoothness of scrolling is another improvement over the original, although it's not as slick as the Mega Drive version. At first I would have preferred it if it had moved faster, but you soon realise that this would only make a hard game harder.

As for the introductory screens, which are important when it comes to hyping the atmosphere, the maker has attempted to recount the story in a cinematic style. Though they are crudely done in comparison to the type of CD-ROM intros available now, these scenes develop the plot for each level, giving added depth to the missions.

86%

Strike

**After the Air Cav blitzing
of Desert Strike, Ocean
brings jingoism to the
jungle with the sequel.
Gareth Lofthouse takes**

it for a whirl



The Evil Maniacs - you can almost hear their insane laughter

As I said, I still have nuclear resources.

OPINION

85%

Amiga owners have waited a long time for Jungle Strike to be converted, but their patience has been rewarded with a game that will test their arcade and tactical skills to the limit. With its impressive graphics and the superbly designed game system, it could well be the best chopper title yet.

The only criticism I have is that the game's learning curve is too steep at the start. Yes, I hear your cries of "Wimp I" but so much frustration from the outset can be

outfought. All the same, it is possible to win your way through in the end, and the satisfaction of completing a campaign is enormous. It's predecessor fused arcade action and strategy in one overwhelmingly addictive game. Jungle Strike has taken that formula and made it better.



PLAYABILITY

Jungle Strike, like its predecessor, is two helicopter games rolled into one. Firstly, it borrows from the Sim style of game, pitting a player's tactical wit against the challenges of missions and long-term campaigns.

At the same time it's a 3D scrolling shoot-'em-up, where realism and cockpit views have been disposed of in favour of fast arcade action. Thankfully, the playing screen is entirely uncluttered by the dials, radars and HUD displays you'd find in, for example, Gunship 2000.

It's a combination that works extremely well. On their own, Sims can be too realistic, while arcade blasting can get repetitive. Jungle Strike manages to keep the best elements of both.

When it comes to the actual missions, I found this game far more interesting than Desert Strike thanks to much more variety and a more structured approach.

Protecting Washington from terrorist attacks, for example, makes a novel change from the usual military conflict, and as you progress through the missions you uncover more and more information about the nature of the threat.

Far from the repetitious seek and destroy tasks that spoil some Sims, missions in Jungle are imaginative. In one you must give airborne cover to the president's motorcade, while in another you must destroy suicidal car bombers before they reach their target.

COMPLEX

It has to be said that this game is very tough from the word go, and I would have preferred a gentler introduction in the early phases. Even in Washington, for example, you have to make the most of every last drop of fuel just to stay airborne.

Each campaign takes a fair bit of flying time to complete, and if you screw up either by dying or failing in a mission then you're sent right back to the beginning. Maybe it's just sour grapes on my part for not being a good enough player, but I became sick to death of the message "Return to Base" signalling the end of my career.

The following is another example of how tough it's become: In Desert Strike you used to be able to outmanoeuvre tanks' turrets if you were fast enough, but in Jungle they track your chopper relentlessly. This sort of challenge means that only the arcade hotshots among you are going to complete the game without tearing your hair out.

A cheeky new contender for the beat-'em-up crown has arrived. Challenging the likes of *Mortal Kombat 2*, *Body Blows* and *Street Fighter 2*, *Rise of the Robots* has many unique selling points over its rivals. For one, it's music has been done by former Queen member and guitar legend, Brian May.

For another, it has fully rendered 3D graphics, the first-ever fully morphing character in a game and, to top it all, a publicity

INTRODUCTION

campaign that's extensive to say the least!

And I'm sure there are very few of you left that haven't seen all the publicity and hype surrounding this game. Television ads, billboards and a particularly memorable ad in *Viz* magazine are just some of the ways in which this title has been bombarded to the public. And now it's here....but is it any good?

FLASHBACK

Well, it's not *Mortal Kombat*, is it? And I'm a bit of a traditionalist where beat-'em-ups are concerned - the more blood the better! This didn't have the obligatory guts and gore flying everywhere, which for some will make a nice change, but it didn't give you the satisfaction you would expect after a fight. In fact, it failed to generate as much excitement as other beat-'em-up can.

Due to programming restrictions, you don't have as much freedom to pit all the fighters against each other. Most of the robots are just too large and would take up too much memory to have them fighting each other, so you must always have one of the opponents as the Cyborg. There aren't as many fighters as you might expect either, with only seven in total, so the game's longevity is questionable.

The actual speed of the game seems slower than other beat-'em-ups too, even when you take off the shadows and screen shake. Graphically though, *Rise of the Robots* is a totally new concept and provides a nice variation on the usual approach.



The Supervisor morphs into different shapes and really does look spectacular



The graphically brilliant introduction sequence provides a great start to the game

Rise of the

STORYLINE

With a name like 'Rise of the Robots' it'll come as no surprise to find that this is set in the future. A super-tech society, in fact, which is highly industrialised and where the population inhabit huge city-states. Because of pollution, things like water, food and air have to be manufactured. Yes, I know it's all beginning to portray the usual 'dismal city in the future' image, but it does create a good atmosphere for the game.

Robots are used as servants and are manufactured by a huge corporation, Electrocop, and this is where all the trouble starts! The plant is entirely run by the robots, from the industrial droids to the polymorphic supervisor, but (and as inevitably happens with computers) they go wrong! An Ego-Virus infects the supervisor, turning her in to a psychopath, and she goes through the factory reprogramming the workers.

You are a human-based Cyborg and must go to the Electrocop to stop her.



A high-tech storyline sets up the game well



A lot of attention has gone in to making the robots behave realistically



In the training mode you can be any of the other robots

SOUND

Publicity Stunt, no. 2: get a famous rock star to provide the music. In this case, Brian May, but to be honest it could be anyone from the snippet you hear. An anonymous guitar sound screeches along during the game selection, but that's about all you get.

The actual in-game sound effects aren't all that spectacular either. There is a good metal-on-metal sound when the robots land punches on each other, but there is a lack of atmospheric tunes during the fights which could have added some tension.

What do work well though are the actual moves of the characters. For example, when they extend their arms to punch you hear the metal screeching, providing authenticity.

40%

Publisher: Time Warner Interactive

Developer: Mirage

Boxes: 10 for 500 - version 1.3 for 1200

Price: 1200-£42.99; 500 - £39.99; £392-£44.99

Game: Beat 'em up

Hard disk install: Yes

Control system: Joystick/joystick

Supports: A500 - A1200/£392

Recommended: N/A

GRAPHICS

The graphics are nothing short of stunning to say the least. The robots have been fully rendered, creating an awesome impression of high-tech 3D robots.

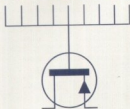
The backdrops show the futuristic environment of the factory brilliantly. The depth of the room looks realistic, with the foreground actually looking like the foreground and the back looking like the back - you can almost feel as if another robot might actually walk around the corner!

Before each fight takes place, you are treated to cinematic sequences

which really do add to the game. Each of the robots walks in to the scene, giving you an introduction to its character. For example, they show some of the moves they can do.

A lot of work has gone in to making the robots as menacing as possible, and with each one completely different in design they really are impressive - from the metallic blue Cyborg with his more agile moves to the heavy Loader Droid with mechanical joints and dummy

disposition. This is re-enforced with the screenshake, i.e. when the robots are crashing around the ground shakes accordingly, giving the impression of their heaviness. Finally, the use of shadows also helps to create a realistic environment.



There are not fifty ways of fighting, there's only one, and that's to win.

Andre Malraux

Robots

Tina Hackett used to be a shy, retiring girl....then she played beat-'em-ups and has never been the same since.

This month she's been let loose on

Mirage's Rise of the Robots

OPINION

50%

While on the surface everything looks the business, the playability is definitely not up to the same standard. It's not entirely bad by any means, but when you've played Mortal Kombat 2 only minutes before, you really do feel like something is missing from Rise.

There are a good range of moves though, so you can put together a nice fighting sequence, and the characters have an array of special moves like 'double fork-slash' or 'Catapult Spins' - unfortunately, on some characters it's too easy just to use the same move on them though. Visually, some of the actions don't work, and at best they look unspectacular, at worst they make the robots look like ballet dancers on steroids.

Rise of the Robots is a fantastic concept, but somehow it just doesn't come

across as well as you might expect. It does have its worthwhile points, and with a fully morphing character (which really does look spectacular) and brilliantly rendered graphics it will sell well. It is also original, which counts for a lot these days.

The one thing many will like about Rise is that it doesn't have all the gratuitous violence in it, so for those who want a change from the usual blood and gore, this might be worth a look - especially if you want to show off the kind of graphics available for the Amiga. However, it's certainly not as playable as other beat-'em-up titles on the market and the asking price is a little on the steep side. Without the fancy graphics it's just a very average game.

You should also bear in mind that the game comes on a massive 10 disks for the A500+ version and 13 for the A1200. Fortunately, it is installable, so it shouldn't be a problem if you have a hard disk or a second drive.

90%



E.M. COMPUTERGRAPHIC

RITMAPPED CLIP ART

EMC Volume 1 5 Disks - \$14.90 - Classic IFF Clipart
Sports, Cartoons, History, Animals, Nature, People, Food, and more!

EMC Volume 11 5 Disks - \$14.90 - Classic IFF Clipart
Animals, Plants, Sports, Transportation, Science, and more!

EMC Volume 16 8 Disks - \$22.50 - Classic IFF Clipart
Insects, Kids, Sports, Animals, Religion, Office, Food, and more!

EMC Volume 22 5 Disks - \$14.00 - Classic IFF Clipart
People, Sports, Medical, Animals, Computers, Office and lots more!

EMC Volume 26 5 Disks - \$14.00 - Classic IFF Clipart
Animals, Kithas, Casts, Computers, Headers/Borders & Seasons.

VERY HIGH QUALITY IFF CLIP

*Especially large files which produce outputs of amazing quality.
PP format and compatible with A1, major applications.
We recommend that you have at least 2mb of memory to use these images!*

- | | | | |
|---------------|---------|---------|----------------|
| EMC Volume 1 | 5 Disks | \$14.00 | IFF Animals 1 |
| EMC Volume 2 | 5 Disks | \$14.00 | IFF Animals 2 |
| EMC Volume 3 | 5 Disks | \$14.00 | IFF Animals 3 |
| EMC Volume 4 | 5 Disks | \$14.00 | IFF Animals 4 |
| EMC Volume 5 | 5 Disks | \$22.00 | IFF Transport |
| EMC Volume 6 | 5 Disks | \$14.00 | IFF Animals 5 |
| EMC Volume 7 | 5 Disks | \$14.00 | IFF Business |
| EMC Volume 8 | 5 Disks | \$14.00 | IFF Factory 1 |
| EMC Volume 9 | 5 Disks | \$14.00 | IFF Factory 2 |
| EMC Volume 10 | 5 Disks | \$14.00 | IFF Factory 3 |
| EMC Volume 11 | 5 Disks | \$14.00 | IFF Barbers |
| EMC Volume 12 | 5 Disks | \$14.00 | IFF Doctors |
| EMC Volume 13 | 5 Disks | \$14.00 | IFF Nurses |
| EMC Volume 14 | 5 Disks | \$14.00 | IFF Police |
| EMC Volume 15 | 5 Disks | \$14.00 | IFF Sports |
| EMC Volume 16 | 5 Disks | \$14.00 | IFF Education |
| EMC Volume 17 | 5 Disks | \$14.00 | IFF Various 1 |
| EMC Volume 18 | 5 Disks | \$14.00 | IFF Various 2 |
| EMC Volume 19 | 5 Disks | \$14.00 | IFF Various 3 |
| EMC Volume 20 | 5 Disks | \$14.00 | IFF Various 4 |
| EMC Volume 21 | 5 Disks | \$14.00 | IFF Various 5 |
| EMC Volume 22 | 5 Disks | \$14.00 | IFF Various 6 |
| EMC Volume 23 | 5 Disks | \$14.00 | IFF Various 7 |
| EMC Volume 24 | 5 Disks | \$14.00 | IFF Various 8 |
| EMC Volume 25 | 5 Disks | \$14.00 | IFF Various 9 |
| EMC Volume 26 | 5 Disks | \$14.00 | IFF Various 10 |
| EMC Volume 27 | 5 Disks | \$14.00 | IFF Various 11 |
| EMC Volume 28 | 5 Disks | \$14.00 | IFF Various 12 |
| EMC Volume 29 | 5 Disks | \$14.00 | IFF Various 13 |
| EMC Volume 30 | 5 Disks | \$14.00 | IFF Various 14 |
| EMC Volume 31 | 5 Disks | \$14.00 | IFF Various 15 |
| EMC Volume 32 | 5 Disks | \$14.00 | IFF Various 16 |
| EMC Volume 33 | 5 Disks | \$14.00 | IFF Various 17 |
| EMC Volume 34 | 5 Disks | \$14.00 | IFF Various 18 |
| EMC Volume 35 | 5 Disks | \$14.00 | IFF Various 19 |
| EMC Volume 36 | 5 Disks | \$14.00 | IFF Various 20 |
| EMC Volume 37 | 5 Disks | \$14.00 | IFF Various 21 |
| EMC Volume 38 | 5 Disks | \$14.00 | IFF Various 22 |
| EMC Volume 39 | 5 Disks | \$14.00 | IFF Various 23 |
| EMC Volume 40 | 5 Disks | \$14.00 | IFF Various 24 |
| EMC Volume 41 | 5 Disks | \$14.00 | IFF Various 25 |
| EMC Volume 42 | 5 Disks | \$14.00 | IFF Various 26 |
| EMC Volume 43 | 5 Disks | \$14.00 | IFF Various 27 |
| EMC Volume 44 | 5 Disks | \$14.00 | IFF Various 28 |
| EMC Volume 45 | 5 Disks | \$14.00 | IFF Various 29 |
| EMC Volume 46 | 5 Disks | \$14.00 | IFF Various 30 |
| EMC Volume 47 | 5 Disks | \$14.00 | IFF Various 31 |
| EMC Volume 48 | 5 Disks | \$14.00 | IFF Various 32 |
| EMC Volume 49 | 5 Disks | \$14.00 | IFF Various 33 |
| EMC Volume 50 | 5 Disks | \$14.00 | IFF Various 34 |
| EMC Volume 51 | 5 Disks | \$14.00 | IFF Various 35 |
| EMC Volume 52 | 5 Disks | \$14.00 | IFF Various 36 |
| EMC Volume 53 | 5 Disks | \$14.00 | IFF Various 37 |
| EMC Volume 54 | 5 Disks | \$14.00 | IFF Various 38 |
| EMC Volume 55 | 5 Disks | \$14.00 | IFF Various 39 |
| EMC Volume 56 | 5 Disks | \$14.00 | IFF Various 40 |
| EMC Volume 57 | 5 Disks | \$14.00 | IFF Various 41 |
| EMC Volume 58 | 5 Disks | \$14.00 | IFF Various 42 |
| EMC Volume 59 | 5 Disks | \$14.00 | IFF Various 43 |
| EMC Volume 60 | 5 Disks | \$14.00 | IFF Various 44 |
| EMC Volume 61 | 5 Disks | \$14.00 | IFF Various 45 |
| EMC Volume 62 | 5 Disks | \$14.00 | IFF Various 46 |
| EMC Volume 63 | 5 Disks | \$14.00 | IFF Various 47 |
| EMC Volume 64 | 5 Disks | \$14.00 | IFF Various 48 |
| EMC Volume 65 | 5 Disks | \$14.00 | IFF Various 49 |
| EMC Volume 66 | 5 Disks | \$14.00 | IFF Various 50 |
| EMC Volume 67 | 5 Disks | \$14.00 | IFF Various 51 |
| EMC Volume 68 | 5 Disks | \$14.00 | IFF Various 52 |
| EMC Volume 69 | 5 Disks | \$14.00 | IFF Various 53 |
| EMC Volume 70 | 5 Disks | \$14.00 | IFF Various 54 |
| EMC Volume 71 | 5 Disks | \$14.00 | IFF Various 55 |
| EMC Volume 72 | 5 Disks | \$14.00 | IFF Various 56 |
| EMC Volume 73 | 5 Disks | \$14.00 | IFF Various 57 |
| EMC Volume 74 | 5 Disks | \$14.00 | IFF Various 58 |
| EMC Volume 75 | 5 Disks | \$14.00 | IFF Various 59 |
| EMC Volume 76 | 5 Disks | \$14.00 | IFF Various 60 |
| EMC Volume 77 | 5 Disks | \$14.00 | IFF Various 61 |
| EMC Volume 78 | 5 Disks | \$14.00 | IFF Various 62 |
| EMC Volume 79 | 5 Disks | \$14.00 | IFF Various 63 |
| EMC Volume 80 | 5 Disks | \$14.00 | IFF Various 64 |
| EMC Volume 81 | 5 Disks | \$14.00 | IFF Various 65 |
| EMC Volume 82 | 5 Disks | \$14.00 | IFF Various 66 |
| EMC Volume 83 | 5 Disks | \$14.00 | |

OTHER FONTS AND CLIPART

EMC Vol 3 - 2 Disks - £ 6.00 - Pagestream Fonts
34 Pagestream format fonts, compatible with all program versions.
EMC Vol 18 - 5 Disks - £16.50 - 60 PDraw Fonts
EMC Vol 19 - 5 Disks - £16.50 - 63 PDraw Fonts

EMC Vol 20 - 5 Disks - £16.50 - 50 PDraw Fonts
EMC Vol 48 - 5 Disks - £14.00 - ColorFonts
 54 4.5 and 16 color fonts for DPaint, Seals, Opalvision etc.,
EMC Vol 49 - 5 Disks - £14.00 - ColorFonts
 60 4.5 and 16 color fonts for DPaint, Seals, Opalvision etc.,

For Pagestream and Wordworth 3 users:
EMC Vol 2 - 6 Disks - £16.50 - PC ClipArt
 gem structured/ing clipart. Computers, Borders and lots more!
EMC Vol 21 - 6 Disks - £16.50 - PCX Clipart

256 IFF COLOUR GRAPHICS FOR AGA AND 24 BIT AMIGAS

IFF256 format pics that will load directly into any 24 bit or AGA application, such as DPaint 4.5, Opalvision, ADPro etc. You can also use these pics as 256 backdrops on A1200/A4000's.

- EMC Volume 88** - 6 Disks - **E15.50** - **258 Cars 1**
Ferrari, Corvette, Mercedes, Formula 1, Sports Cars and more!
- EMC Volume 89** - 6 Disks - **E15.50** - **258 Cars 2**
Ferrari, Corvette, Mercedes, Formula 1, Sports Cars and more!
- EMC Volume 90** - 6 Disks - **E16.50** - **258 Planes 1**
Boeing, Lockheed, Douglas, Cessna, Piper, Mooney, etc.
- EMC Volume 91** - 6 Disks - **E16.50** - **258 Planes 2**
Boeing, Lockheed, Douglas, Cessna, Piper, Mooney, etc.
- EMC Volume 92** - 5 Disks - **E14.00** - **256 Space 1**
Satellites, Space Shuttle, Mars, Venus, Uranus, Neptune, etc.
- EMC Volume 93** - 5 Disks - **E14.00** - **256 Space 2**
Satellites, Space Shuttle, Mars, Venus, Uranus, Neptune, etc.
- EMC Volume 94** - 5 Disks - **E14.00** - **256 Women**
2 Entertainment, Show Shows, NASA Shows, and more!
- EMC Volume 95** - 5 Disks - **E14.00** - **256 Women**
2 Entertainment, Show Shows, NASA Shows, and more!
- EMC Volume 96** - 5 Disks - **E14.00** - **256 WildCats**
Location, Location, Location, Location, Location, Location, etc.
- EMC Volume 96** - 5 Disks - **E16.50** - **258 Horses 1**
Horse, Horse, Horse, Horse, Horse, Horse, etc.
- EMC Volume 97** - 6 Disks - **E16.50** - **258 Horses 2**
Horse, Horse, Horse, Horse, Horse, Horse, etc.
- EMC Volume 98** - 6 Disks - **E14.00** - **258 Dogs 1**
Labrador, Cocker Spaniel, Golden Retriever, etc.
- EMC Volume 99** - 6 Disks - **E14.00** - **258 Dogs 2**
Labrador, Cocker Spaniel, Golden Retriever, etc.
- EMC Volume 100** - 6 Disks - **E16.50** - **258 Cats 1**
Siamese, Persian, Maine Coon, etc.
- EMC Volume 101** - 6 Disks - **E16.50** - **258 Cats 2**
Siamese, Persian, Maine Coon, etc.
- EMC Volume 102** - 6 Disks - **E16.50** - **258 WaterLife**
Fishes, Snails, Crabs, etc.
- EMC Volume 103** - 6 Disks - **E16.50** - **258 Sun & Sea**
About everything from tropical beaches to tropical islands.
- EMC Volume 104** - 6 Disks - **E16.50** - **258 Animals 1**
Tiger, Bear, Seal, all types, Zebra, and lots more!
- EMC Volume 105** - 6 Disks - **E16.50** - **258 Animals 2**
Tiger, Bear, Seal, all types, Zebra, and lots more!
- EMC Volume 106** - 6 Disks - **E16.50** - **258 Animals 3**
Tiger, Bear, Seal, all types, Zebra, and lots more!
- EMC Volume 107** - 6 Disks - **E16.50** - **258 Animals 4**
Tiger, Bear, Seal, all types, Zebra, and lots more!
- EMC Volume 108** - 6 Disks - **E16.50** - **258 Panorama 1**
Tropical Mountains, Mountain Lakes, Waterfalls, etc.
- EMC Volume 109** - 6 Disks - **E16.50** - **258 Panorama 2**
Tropical Mountains, Mountain Lakes, Waterfalls, etc.
- EMC Volume 110** - 6 Disks - **E16.50** - **258 Panorama 3**
Tropical Mountains, Mountain Lakes, Waterfalls, etc.
- EMC Volume 111** - 6 Disks - **E16.50** - **258 Panorama 4**
Tropical Mountains, Mountain Lakes, Waterfalls, etc.
- EMC Volume 112** - 6 Disks - **E16.50** - **258 The Sun**
Sun, Sun, Sun, Sun, Sun, Sun, etc.
- EMC Volume 113** - 6 Disks - **E16.50** - **258 The World**
World, World, World, World, World, World, etc.
- EMC Volume 114** - 6 Disks - **E16.50** - **258 America**
America, America, America, America, America, America, etc.
- EMC Volume 115** - 6 Disks - **E16.50** - **258 The World**
World, World, World, World, World, World, etc.
- EMC Volume 116** - 6 Disks - **E16.50** - **258 The World**
World, World, World, World, World, World, etc.
- EMC Volume 117** - 6 Disks - **E16.50** - **258 Birds 1**
Birds, Birds, Birds, Birds, Birds, Birds, etc.
- EMC Volume 118** - 6 Disks - **E16.50** - **258 Birds 2**
Birds, Birds, Birds, Birds, Birds, Birds, etc.
- EMC Volume 119** - 6 Disks - **E16.50** - **258 Fantasy 1**
Ungulates, Ungulates, Ungulates, Ungulates, Ungulates, etc.
- EMC Volume 120** - 6 Disks - **E16.50** - **258 Fantasy 2**
Ungulates, Ungulates, Ungulates, Ungulates, Ungulates, etc.
- EMC Volume 121** - 6 Disks - **E16.50** - **258 Fantasy 3**
Ungulates, Ungulates, Ungulates, Ungulates, Ungulates, etc.
- EMC Volume 122** - 5 Disks - **E14.00** - **258 Ringers 1**
Ringers, Ringers, Ringers, Ringers, Ringers, etc.
- EMC Volume 123** - 5 Disks - **E14.00** - **258 Ringers 2**
Ringers, Ringers, Ringers, Ringers, Ringers, etc.
- EMC Volume 124** - 5 Disks - **E14.00** - **258 Ringers 3**
Ringers, Ringers, Ringers, Ringers, Ringers, etc.
- EMC Volume 125** - 5 Disks - **E14.00** - **258 Girls 1**
258 Young Women dressed in very little... Blood boiling!
- EMC Volume 126** - 5 Disks - **E14.00** - **258 Girls 2**
258 Young Women dressed in very little... Blood boiling!
- EMC Volume 127** - 5 Disks - **E14.00** - **258 Girls 3**
258 Young Women dressed in very little... Blood boiling!
- EMC Volume 128** - 5 Disks - **E16.50** - **258 Water Girls**
258 Young Women dressed in very little... Blood boiling!
- EMC Volume 129** - 5 Disks - **E16.50** - **258 Swim Suits**
258 Young Women dressed in very little... Blood boiling!
- EMC Volume 130** - 5 Disks - **E14.00** - **258 Bikinis**
258 Young Women dressed in very little... Blood boiling!
- EMC Volume 131** - 5 Disks - **E14.00** - **258 Beach Girls**
258 Young Women dressed in very little... Blood boiling!
- EMC Volume 132** - 5 Disks - **E14.00** - **258 Star Trek**
Star Trek, Star Trek, Star Trek, Star Trek, Star Trek, etc.
- EMC Volume 133** - 5 Disks - **E14.00** - **258 Various 1**
Various, Various, Various, Various, Various, etc.
- EMC Volume 134** - 5 Disks - **E14.00** - **258 Various 2**
Various, Various, Various, Various, Various, etc.
- EMC Volume 135** - 5 Disks - **E14.00** - **258 Reptiles**
Reptiles, Reptiles, Reptiles, Reptiles, Reptiles, etc.
- EMC Volume 136** - 5 Disks - **E16.50** - **258 Classic Cars**
Classic cars, Classic cars, Classic cars, Classic cars, Classic cars, etc.
- EMC Volume 137** - 5 Disks - **E16.50** - **258 Classic Cars**
Classic cars, Classic cars, Classic cars, Classic cars, Classic cars, etc.
- EMC Volume 138** - 6 Disks - **E16.50** - **258 Fast Cars**
Fast cars, Fast cars, Fast cars, Fast cars, Fast cars, etc.
- EMC Volume 139** - 6 Disks - **E16.50** - **258 Racing**
Racing, Racing, Racing, Racing, Racing, etc.
- EMC Volume 140** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 141** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 142** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 143** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 144** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 145** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 146** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 147** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 148** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 149** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 150** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 151** - 6 Disks - **E16.50** - **258 Boats**
Boats, Boats, Boats, Boats, Boats, etc.
- EMC Volume 152** - 6 Disks - **E16**

MORE 256 IFF COLOUR GRAPHICS FOR AGA AND 24 BIT AMIGAS

- [illegible]

Spectacular artwork by the renowned fantasy artist Tim White
EMC Volume 243 - 6 Disks - £16.50 - 256 White 1
EMC Volume 244 - 6 Disks - £16.50 - 256 White 2
EMC Volume 245 - 6 Disks - £16.50 - 256 White 3

● STOP PRESS ● STOP PRESS ●

Do you want to save £1.50 on every EMC volume of disks you buy?... Yes!... we thought so!

When you buy 2 or more volumes you will qualify for a volume discount, buy 3 volumes and you get £4.50 off, buy 4 volumes and you get £8.00 off...and so on. Basically this means that if you purchase 2 or more volumes you can deduct £1.50 for EVERY volume of disks you order.

For example: if you would like to order EMC volumes 48 and 103.
The normal cost would be £30.50... Now it will only cost you £27.50

Opalvision 2.3 Update Disks £6.9

NO CATCHES!_NO SNAGS!...NO SMALLPRINT!



THE PROFESSIONAL STANDARD
OF TYPEFACES
ENDORSED BY COMPTONWARE UK

SPECIALISING IN THE PROMOTION OF DTP ON THE AMIGA AND WINNERS OF THE 1992 AMIGA SHOPPER TOP TYPEFACE AWARD

TYPE I FONTS

For use with Pagestream, Publisher, Final Copy92, Final Writer, Wordworth 2, Lighthouse etc.

- EMC Vol 4 - 5 Disks - £14.00 - 67 Type's
- EMC Vol 5 - 5 Disks - £14.00 - 63 Type's
- EMC Vol 6 - 5 Disks - £14.00 - 63 Type's
- EMC Vol 7 - 5 Disks - £14.00 - 68 Type's
- EMC Vol 16 - 5 Disks - £14.00 - 76 Type's
- EMC Vol 17 - 5 Disks - £14.00 - 79 Type's
- EMC Vol 27 - 5 Disks - £14.00 - 56 Type's
- EMC Vol 29 - 5 Disks - £14.00 - 80 Type's

NEW TYPE I FONT VOLUMES

- EMC Vol 77 - 5 Disks - £16.50 - 78 Type's
- EMC Vol 78 - 5 Disks - £16.50 - 69 Type's
- EMC Vol 79 - 5 Disks - £16.50 - 71 Type's
- EMC Vol 80 - 5 Disks - £16.50 - 71 Type's
- EMC Vol 81 - 5 Disks - £16.50 - 106 Type's

CG SCALABLE FONTS

Compatible with all versions of PageStream, Publisher, Final Copy92, Final Writer, Wordworth 2, Lighthouse etc.

- EMC Vol 8 - 5 Disks - £16.50 - 61 CGFonts
- EMC Vol 9 - 5 Disks - £16.50 - 64 CGFonts
- EMC Vol 10 - 5 Disks - £16.50 - 67 CGFonts
- EMC Vol 23 - 5 Disks - £16.50 - 58 CGFonts
- EMC Vol 24 - 5 Disks - £16.50 - 64 CGFonts
- EMC Vol 25 - 5 Disks - £16.50 - 66 CGFonts
- EMC Vol 26 - 5 Disks - £16.50 - 71 CGFonts
- EMC Vol 30 - 5 Disks - £16.50 - 59 CGFonts
- EMC Vol 31 - 5 Disks - £16.50 - 60 CGFonts

NEW CG SCALABLE FONTS

- EMC Vol. 82 - 5 Disks - £16.50 - 53 CGFonts
- EMC Vol. 83 - 5 Disks - £16.50 - 48 CGFonts
- EMC Vol. 94 - 5 Disks - £16.50 - 46 CGFonts
- EMC Vol. 85 - 5 Disks - £16.50 - 46 CGFonts
- EMC Vol. 86 - 5 Disks - £16.50 - 34 CGFonts
- EMC Vol. 87 - 5 Disks - £16.50 - 38 CGFonts

PICK 'N' MIX SERVICES

FONT PICK 'N' MIX FONT SERVICE

This service, offered online, is designed to help you select the fonts you need for your project. We will supply you with a complete list of fonts available in our database. You can then select the fonts you need for your project. We will then supply you with the fonts you need for your project.

CLIPART PICK 'N' MIX SERVICE

This service is designed to help you select the clipart you need for your project. We will supply you with a complete list of clipart available in our database. You can then select the clipart you need for your project. We will then supply you with the clipart you need for your project.

SCANNING SERVICE

HAVE YOU EVER NEEDED SOME ARTISTIC SCANNING? HAVE YOU EVER NEEDED 'OUT AND ABOUT' METHODS TO 'YOUR' INFORMATION ON PAPER?

EVER WANTED TO TAKE ONE OF YOUR FAVORITE PHOTOS AS AN ANTIQUE BACKDROP?

EVER WANTED TO MAKE ONE OF YOUR HOUSES PRESENTATION FINE WITH CUSTOM GRAPHICS?

This service has proved to be very popular with everybody from amateur photographers to professional photographers. We can provide high quality scans, in any size you require, and we can provide your original photo or slides to be left to you.

50 DPI TO 1200 DPI

IN ANY FORMAT FROM MONOCHROME TO 24 BIT. The lowest resolution scan is at 50 DPI. If selected at 1200 DPI, the scan will be in color. The scan will be in color. The scan will be in color.

FOR MORE DETAILS...GIVE US A RING!

EC'S 16 COLOUR IMAGES FOR ALL AMIGAS

These VERY HIGH QUALITY images are compatible with ALL Amigas and were produced using the best available technology. These images can be used in any program that supports the EC's 16 colour format.

YOU WON'T BELIEVE THAT THESE IMAGES ONLY CONTAIN 16 COLOURS!

- EMC Volume 173 - 5 Disks - £16.50 - ECS Chicks 1
- EMC Volume 174 - 5 Disks - £16.50 - ECS Chicks 2
- EMC Volume 175 - 5 Disks - £16.50 - ECS Chicks 3
- EMC Volume 176 - 5 Disks - £16.50 - ECS Chicks 4
- EMC Volume 177 - 5 Disks - £16.50 - ECS Chicks 5
- EMC Volume 178 - 5 Disks - £16.50 - ECS Panorama 1
- EMC Volume 179 - 5 Disks - £16.50 - ECS Panorama 2
- EMC Volume 180 - 5 Disks - £16.50 - ECS Panorama 3
- EMC Volume 181 - 5 Disks - £16.50 - ECS Panorama 4
- EMC Volume 182 - 5 Disks - £16.50 - ECS Space 1
- EMC Volume 183 - 5 Disks - £16.50 - ECS Space 2
- EMC Volume 184 - 5 Disks - £16.50 - ECS Cars 1
- EMC Volume 185 - 5 Disks - £16.50 - ECS Cars 2
- EMC Volume 186 - 5 Disks - £16.50 - ECS Aircraft 1
- EMC Volume 187 - 5 Disks - £16.50 - ECS Aircraft 2
- EMC Volume 188 - 5 Disks - £16.50 - ECS Animals 1
- EMC Volume 189 - 5 Disks - £16.50 - ECS Animals 2
- EMC Volume 190 - 5 Disks - £16.50 - ECS Animals 3
- EMC Volume 191 - 5 Disks - £16.50 - ECS Animals 4
- EMC Volume 192 - 5 Disks - £16.50 - ECS Dogs&Cats 1
- EMC Volume 193 - 5 Disks - £16.50 - ECS Dogs&Cats 2
- EMC Volume 194 - 5 Disks - £16.50 - ECS Famous People
- EMC Volume 195 - 5 Disks - £16.50 - ECS Military
- EMC Volume 196 - 5 Disks - £16.50 - ECS Motor Racing
- EMC Volume 197 - 5 Disks - £16.50 - ECS Trains
- EMC Volume 198 - 5 Disks - £16.50 - ECS WorldLife
- EMC Volume 199 - 5 Disks - £16.50 - ECS World 1
- EMC Volume 200 - 5 Disks - £16.50 - ECS World 2

16 COLOUR CLIPART FOR ALL AMIGAS

This VERY HIGH QUALITY colour clipart is suitable for use with ALL Amiga programs that support the use of colour clipart including PageStream, Publisher, Final Copy92, Final Writer, Wordworth 2, Lighthouse etc.

All volumes, except EMC Volume 204, contain special 'OFF' index thumbnail screens. Simply double click on the 'Disk Index' icon to see the entire disk contents!

- EMC Volume 201 - 6 Disks - £16.50 - CCA Animals 1
- EMC Volume 202 - 6 Disks - £16.50 - CCA Animals 2
- EMC Volume 203 - 6 Disks - £16.50 - CCA Animals 3
- EMC Volume 204 - 6 Disks - £16.50 - CCA Mags
- EMC Volume 205 - 6 Disks - £16.50 - CCA Flowers
- EMC Volume 206 - 6 Disks - £16.50 - CCA Flowers
- EMC Volume 207 - 6 Disks - £16.50 - CCA Various

ENCAPSULATED POSTSCRIPT CLIPART

Very high quality clipart, suitable for use with PageStream, Publisher, Final Copy92, Final Writer, Wordworth 2, Lighthouse etc.

- EMC Vol. 12 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 13 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 14 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 15 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 16 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 17 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 18 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 19 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 20 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 21 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 22 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 23 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 24 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 25 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 26 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 27 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 28 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 29 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 30 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 31 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 32 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 33 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 34 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 35 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 36 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 37 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 38 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 39 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 40 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 41 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 42 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 43 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 44 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 45 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 46 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 47 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 48 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 49 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 50 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 51 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 52 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 53 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 54 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 55 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 56 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 57 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 58 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 59 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 60 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 61 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 62 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 63 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 64 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 65 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 66 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 67 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 68 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 69 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 70 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 71 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 72 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 73 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 74 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 75 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 76 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 77 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 78 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 79 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 80 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 81 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 82 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 83 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 84 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 85 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 86 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 87 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 88 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 89 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 90 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 91 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 92 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 93 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 94 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 95 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 96 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 97 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 98 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 99 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 100 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 101 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 102 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 103 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 104 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 105 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 106 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 107 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 108 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 109 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 110 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 111 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 112 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 113 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 114 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 115 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 116 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 117 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 118 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 119 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 120 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 121 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 122 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 123 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 124 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 125 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 126 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 127 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 128 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 129 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 130 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 131 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 132 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 133 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 134 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 135 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 136 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 137 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 138 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 139 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 140 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 141 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 142 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 143 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 144 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 145 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 146 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 147 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 148 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 149 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 150 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 151 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 152 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 153 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 154 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 155 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 156 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 157 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 158 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 159 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 160 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 161 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 162 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 163 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 164 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 165 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 166 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 167 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 168 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 169 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 170 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 171 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 172 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 173 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 174 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 175 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 176 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 177 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 178 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 179 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 180 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 181 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 182 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 183 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 184 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 185 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 186 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 187 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 188 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 189 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 190 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 191 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 192 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 193 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 194 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 195 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 196 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 197 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 198 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 199 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 200 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 201 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 202 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 203 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 204 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 205 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 206 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 207 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 208 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 209 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 210 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 211 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 212 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 213 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 214 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 215 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 216 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 217 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 218 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 219 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 220 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 221 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 222 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 223 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 224 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 225 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 226 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 227 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 228 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 229 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 230 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 231 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 232 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 233 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 234 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 235 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 236 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 237 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 238 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 239 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 240 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 241 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 242 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 243 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 244 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 245 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 246 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 247 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 248 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 249 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 250 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 251 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 252 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 253 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 254 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 255 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 256 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 257 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 258 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 259 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 260 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 261 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 262 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 263 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 264 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 265 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 266 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 267 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 268 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 269 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 270 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 271 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 272 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 273 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 274 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 275 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 276 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 277 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 278 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 279 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 280 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 281 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 282 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 283 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 284 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 285 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 286 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 287 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 288 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 289 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 290 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 291 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 292 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 293 - 6 Disks - £16.50 - EPS Clipart
- EMC Vol. 294 - 6 Disks - £1

Last year we were somewhat spoilt with the superb Disney films that hit the cinema, namely Aladdin and The Lion King. And Disney is big business and that ultimately means big bucks. Not content to rake it in at the Box Office, we are then bombarded with all the other merchandise that goes with it. Tee shirts, cuddly toys, the soundtrack, and now the most modern of marketing ideas, the

INTRODUCTION

computer game license.

But if Virgin/Disney's last game, Aladdin, was anything to go by then this isn't exactly a bad thing and now the license from their last film, The Lion King has been turned into a game. But is it really the cat's whiskers, the king of the jungle, a roaring success?



Simba, the lion cub, is as endearing as he is in the film



Other characters from the film, such as the evil hyenas, can be found in the game



The 'stomping buffalo' scene gives variety to the game - use your judgement to avoid their hooves



Animation is first class, especially on the main character

The Lion

STORYLINE

I went to see The Lion King (for research purposes only, you understand) so I can now relate the story for you. Simba the lion cub is forced into the wilderness by his evil uncle Scar. Y'see Scar is after the throne and by killing off Simba's father in a nasty 'stampeding Wildebeest' accident and by convincing Simba it was all his fault (thus forcing him to disappear with his tail between his legs), he can then be King.

Simba is alone in the jungle until he comes across Timon

the meerkat and Pumbaa the warthog. A few songs and a couple of comical escapades later, he sees his first love who he left behind with the rest of the pride. She tells him how nasty Scar is, how he's wreaked havoc with the food supply and all the other evil things that evil characters tend to do.

By this time, Simba has grown into a lion and is ready to go back, defeat Scar and save the day. And surprise, surprise, he does and they all live happily ever after. Cue: soppy music, roll credits.

SOUND

There has been quite a fuss made over the soundtrack to The Lion King, what with Elton John's 'The Circle of Life' reaching the charts and The Lion King album also meeting with similar success.

So it's hardly surprising when you see that the actual musical score from the film is used in the game. This works well and fits in with the scenes and style of game-play, reinforcing the rich atmosphere.

Other sound effects are the usual yelps when a character is hurt, or the stamping of hooves, and a rather cute mewling when Simba tries to roar.

74%



Roaring at enemies are a good way of freezing them

Backdrops are detailed and convey the setting of the African jungle



Grab your toupees, break into a rousing chorus of **The Circle of Life** and go 'Aah!' at the cute little lions. Yes, it's **The Lion King** in game form. Tina Hackett catches a strong strain of jungle fever...

King

FLASHBACK

Being a Disney/Virgin game it is obviously going to be compared to their other recent release, *Aladdin*. Both have particularly stunning graphics and both have their merits. Where they differ is with the main sprite – in *Aladdin* you control the more usual two-legged character whereas now it's a four-legged one. This all sounds rather obvious but it actually leads to vastly differing styles of gameplay. At first I found it rather hard to control the lion, although it did make a pleasant change once you'd grasped the basics.

From a more personal opinion, I preferred the *Aladdin* film with its cheeky wit rather than the sentimentality of *The Lion King*, and these elements come across in the game. While this, in itself, is not a criticism, it will have an effect on the audience who play the game.

GRAPHICS

As you might expect, a Virgin/Disney collaboration results in a visually spectacular game. If you've already seen the *Aladdin* game then you know what you can expect.

The animation is very slick and is up to the same quality as the film. The character of Simba has been captured beautifully from when he was the cute, vulnerable cub to the point where he reaches adulthood and becomes the majestic king of the jungle. His mannerisms, such as his facial expressions and kitten-like actions, are conveyed brilliantly, making the cub as endearing as he was in the film.

The other characters, such as the manic hyenas, also come across well through the smooth animation and immense attention to detail.

Backdrops are also impressive, evoking the wonder of the African Jungle. There is even a scene taken from the film where Simba is being chased through a canyon by a herd of stampeding wildebeest which could easily be swapped with its celluloid counterpart without anyone raising an eyebrow.

80%



The sprite changes from the cute cub to the majestic lion



Baddies vary from Chameleons to Monkeys, and can be seen off in various ways



There are the usual platform obstacles such as volcanic pits and drips of lava that you must avoid

OPINION

81%

Virgin has done a most admirable job of recreating the film in game form. The magnificent graphics portray the scenes from the film brilliantly, and you are instantly whisked back to some of the very memorable parts of the film. The elephant graveyard, for example, has the same atmospheric song, the evil hyena characters, and the fantastic graphics.

The animation of the characters is also exceptional and Simba moves as fluidly as in the cartoon. As with *Aladdin*, their character traits come across well. For instance, Simba is shown as a young, mischievous cub, playing with the butterflies and curling up to roll down the banks. It is also a nice touch that you can play Timon and Pumbaa in the bonus games.

A criticism of *Aladdin* was that it was perhaps too easy. The *Lion King*, on the other hand, isn't, and at first it did seem rather tricky to control the sprite. Because of the design of the

sprite, you also have quite a limited choice of attack. Some of the enemies can be growled at to eliminate them, or some can be pounced on – but a weapon you could throw would have helped considerably.

The character is given a beautiful range of moves though, such as the graceful leaping across the rocks or climbing up on ledges – they look realistic and move like you'd expect a lion too.

It is a fantastic looking game by anyone's standards. The gameplay is the usual platformer action and although there is nothing wrong with this in itself, it won't appeal to everyone. But for platformer fans this is an excellent offering.



Publisher: Virgin
Developer: Dave Saunders, Jo Harris
Music: 2
Price: £29.99
Genre: Platformer
Last date tested: No
Control: Joystick
Support: 1220
Recommended: 10020





The first stage of character creation is to build an armature or skeleton. To allow for greater flexibility, new and improved joints were created just for *Primal Rage*.



A clay model is sculpted for each character and it comes complete with all the muscular detail that will be seen in the final puppet.



Once the character has come out of the latex mould, the finishing touches are added. A spot of airbrushing is required to bring the character to 'life'.

At many of you will be familiar with the name 'Time Warner Interactive', but by the end of 1995 you won't be able to move without hearing about this company. You'll find out why in a minute, but first a bit of background information.

Time Warner Interactive is a relatively new entity created as a result of the recent amalgamation of Atari Games, Tengen and the Time Warner Interactive Group. A subsidiary of Time Warner Inc., the company is a publisher of interactive consumer entertainment products, ranging from games to music and 'edutainment' titles spread across arcade, console and computer formats. Since 1976,

Time Warner has held a majority interest in the Atari Games Corporation, a pioneer of the video game industry and developers of over 170 arcade games including revolutionary titles such as Pong and Asteroids. In June of 1994, Atari Games changed its name to Time Warner Interactive after merging with the other Time Warner software companies.

Time Warner Interactive's first foray into the Amiga world was this month's Rise of the Robots, a project in which it teamed up with Mirage. Time Warner Interactive has thus made its first few steps into the Amiga World, but by the end of next year the company will be bounding to the top of the software charts with its conversion of an arcade game that's already being ear-marked as the Mortal Kombat of 1995.

Primal Rage is its name and by all accounts you could find yourself getting crushed in the rush to buy a copy when it arrives on the shelves in late '95. This innovative beat-'em-up is a desperate and bloody fight for survival as dinosaur-like creatures battle to death to rule the new 'Urth'.

What is so fantastic about Primal Rage and the reason why it's already making big waves in the ocean that is the computer games industry is because the game utilises

system analysis



This is almost guaranteed to become the game of 1995.

Jonathan Maddock takes a closer look at what went into the creation of Time Warner Interactive's superb and graphically splendid prehistoric beat-'em-up



The Armadon puppet, which contains elements from triceratops, ankylosaurus and stegosaurus, is finally finished



Frank Kaur (left) is responsible for the programming of Primal Rage, while Dennis Harper (right) produced the whole project

Rage

From sketch to screen

In order to take the flat drawings to fully-posable finished sculptures, Dan Platt took the creature concepts and built clay models, complete right down to the smallest detail. Each character had to have an individually constructed armature, specially designed to offer the flexibility needed for that particular character. Traditional ball-and-socket joints used in movie-model armatures did not allow the required amount of flexibility, so new and improved joints were invented just for the game.

Once the clay model was finished, a plaster mould of the character was created. The finished armature was placed inside, latex was then injected into the mould and this was placed into and baked in a special oven. Once this process was complete, the model was carefully removed from its mould. A fully posable three-dimensional puppet had been created.

In order to make even a single character seem fluid when it makes one move, nearly 100 frames of animation needed to be generated. This was achieved via a progressive series of small movements of the arms, heads, legs and the tail. This process was completed for each of the 70 sequences designed for every character. Incredibly time-consuming when you consider that each creature has over 400 moves in all, but as you can see from the screenshots it was extremely worthwhile.



It's fight night! Armadon gets ready to fight the mighty Blizard against a backdrop of a ruined city

The prehistoric championship of the world moves on to Stonehenge. Blizard takes up the initiative and smacks Armadon in the head





The addition of a stylish mohawk, glass eyes and moulded teeth brings Bilsaur screaming into life!



The finished collection of models in all their glory. Now all that's left to do is some stop-motion animation which, er, we won't take long!



Pete Kleinow, a Hollywood veteran who has worked on films such as *Army of Darkness*, puts Sauron through his paces in the stop-motion laboratory

an exclusive new stop-motion animation technique that provides incredibly life-like characters. Players can choose from seven different giant fantasy creatures, including a Tyrannosaurus Rex, a giant ape and a Cobrasaur. Each one boasts a diverse and unique range of fighting moves, special moves and graphic finishing sequences.

CONCEPTION

Dennis Harper, the game's producer, and Jason Leong, lead animator on *Primal Rage*, conceived the idea of a stop-motion dinosaur-fighting game over two years. Originally, the game was just going to be a battle between two ferocious Tyrannosaurus Rex. As soon as they saw how great the animation looked they decided to design some additional characters, each with an individual personality defined by a certain and highly unique fighting style.

Dennis and Jason were sure that the stop-motion process, which had never been attempted in a game on this kind of large scale before, would be the best and perhaps only way of giving the product a life-like quality.

Stop-motion filming involves the painstakingly small movement of a puppet's



Jason Leong, takes a short break and admires all the amazing 'fantasy' dinosaur images he created for *Primal Rage*



Cameron Petty, game designer, selects animation frames that will eventually make the character motion seem fluid and lifelike

armature and allows for very detailed sequences of frame-to-frame character movements. A greater 3D effect was possible because the puppets are fullyposable and have a bigger range of movement than those digitised human characters which are used in most games.

All of the individual parts of the model (arms, neck, legs and tail) are moved separately, frame by frame. This gives the impression that the characters are living and always changing and moving from one instant to the next.

For example, during the 'ready' sequence for the character called Vertigo, the head bobs and weaves, the tail moves as if it were a snake, the arms move and its fists clench. These effects, combined with the rich colouring of the puppet, ensure that the characters appear to be living, breathing creatures.

The *Primal Rage* production team comprised 30 individuals and was organised more like a Hollywood film crew than a typical bunch of programmers and developers. In fact, top Hollywood talent was recruited in order to ensure the quality of the new stop-motion approach.

Pete Kleinow, a veteran at the stop-motion animation technique who has previously worked on films such as *Army of Darkness*, was brought in to set up and direct the new stop-motion studio. Dan Pratt, who has made a career out of animating movie monsters, was brought in for his animation and model-building expertise and designed both the sculpturers and their posable armatures. In addition to these two special effects experts, nearly a dozen animators were put in charge of the numerous graphic requirements.

DESIGNING

Before any of the stop-motion work could progress, the characters had to be designed and re-designed until the team was happy with the final result. One of the problems encountered was the fact that most dinosaurs walked on four legs and in a game they would be rather slow and not very interesting. Rather than limit the game to a certain type of creature, Jason Leong invented a new set of fantasy characters.

The new characters combine various elements taken from several different dinosaurs. The character Armadon is made up from elements taken from triceratops, ankylosaurus and stegosaurus; Vertigo is part cobra and part effraasi; Talon is mostly deinonychus with the striping and vocals of a tiger and the two giant apes, Bizzard and Chaos, both have outrageous wild hair with personalities to match.

While half of the development crew were constructing the puppets, game designer Cameron Petty laid out the 'move matrix' - a plan which showed each character's actions. Many different types of moves had to be considered such as punches, reactions after being struck by the other character, death sequences, victory sequences and 'ready' poses that a character adopts between moves.

Cameron was also responsible for the creation of the character storylines and designed many of the features that add depth to the game. The game does contain hidden items, often the result of a team joke. Some hidden items only occur at certain times, or only after players perform a set of particular moves or reach a certain level in the game.

Just because the graphics and sound are amazing, that doesn't mean to say that the developers have skipped past the old adage of gameplay. The traditional one-player game designs have been revised. Rather than fighting a special boss to complete the one-player game, players must take the 'Primal Challenge', a fast-paced grudge match pitting the player up against every foe.

For players to master this mode they must be extremely good at the game. They must know the moves needed to beat a superb computer opponent, but must also be capable of executing hits and combinations with precision timing.

Primal Rage is not by any means a 'normal' beat-'em-up and next year it's going to be absolutely massive. The predicted release date is around September time, but I'm sure we'll have some more information on this prehistoric beat-'em-up before too long.

Get that joystick warmed up, build up some caveman courage and get ready to make a *Primal Rage*!

hard!



Poor Armadon has taken a fair old beating and lies in a pool of his own blood. Meanwhile, Sauron the T-Rex celebrates his victory



The two magnificent creatures line up, ready to kick seven shades out of each other



Primal Rage could well become the bloodiest game ever to appear on the Amiga, as demonstrated by the gore-filled screenshot

Europress

Europress Software is Britain's leading producer of educational & productivity programs for the Amiga.

Pictured here is the full range of packages currently available – home learning programs for under-fives upwards to the top-selling suite of home/business tools.

All designed to make the fullest use of the power of your Amiga.



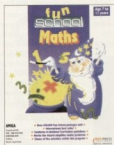
Fun School 3 (under 5)£19.99



Fun School 3 (5-7)£19.99



Fun School 3 (over 7s)£19.99



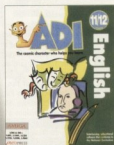
Fun School Maths£25.99



Fun School 4 Paint & Create£25.99



Fun School 4 Spelling£25.99



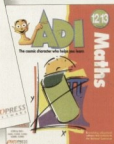
ADI English 11/12£25.99



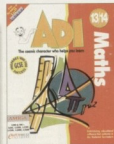
ADI English 12/13£25.99



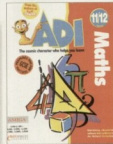
ADI English 13/14£25.99



ADI Maths 12/13£25.99



ADI Maths 13/14£25.99

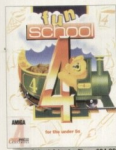


ADI Maths 11/12£25.99



Mini Office

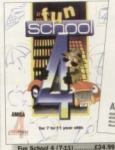
Amiga



Fun School 4 (under 5)£24.99



Fun School 4 (5-7)£24.99



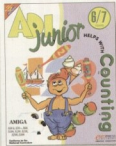
Fun School 4 (7-11)£24.99



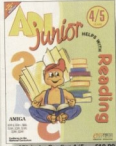
AMOS Professional Compiler£34.99



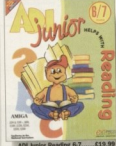
ADI Junior Counting 4-5£19.99



ADI Junior Counting 6-7£19.99



ADI Junior Reading 4/5£19.99



ADI Junior Reading 6-7£19.99



ADI French 11-12£25.99



ADI French 12-13£28.99



ADI French 13/14£25.99



ADI English GCSE£34.99



ADI French GCSE£34.99



ADI Maths GCSE£34.99

All our products are stocked by most major high street computer retailers including Boots, WH Smith, Beatties and Game. If you should experience difficulties obtaining this product you require, please call our customer service department on 01625 859333, or write to us at: Europress Software, Freeport, Adlington Park, Macclesfield SK10 4BY.

Please send further information on:

Name:
Address:
Tel:
AMC 2/95

FUTURE WARS

This, if memory serves me correctly, was the first Delphine graphic adventure and the first to use the Gnetmatique system. This revolutionary new system meant that adventure games were no longer hindered by the laborious task of typing in all your commands. Instead, all that was required was a few short stabs on the mouse buttons and you were transported into having a far more interactive and enjoyable experience.

The plot behind Future Wars is set in the 43rd century and Earth is under attack from a deadly alien race. The planet is protected by an impenetrable SDI defence system, so everybody should be safe, but the aliens have been clever enough to build themselves a time machine. They plan to travel back in time to sabotage the SDI system before it's even been built.

Future Wars features some quite outstanding graphics, especially when you consider just how small the sprites are, but this graphic scale can sometimes be a disadvantage. Some of the items you'll need to progress in the game are too small and you have to spend time searching around the various rooms with a fine tooth comb.

That comment aside, Future Wars is a damn fine game. Seeing that this was Delphine's first adventure, it makes perfect sense to include it in this classic collection.



Your adventure starts off outside an office block cleaning windows. A quick examination of the scaffolding could prove useful



OPERATION STEALTH

Following on from its debut, Future Wars, Delphine continued to dabble in the graphic adventure genre. This time it constructed a game based around the trials and tribulations of a secret agent, à la James Bond.

John Glames is the hero in Operation Stealth and has as much sophistication and flair as Messers Connery and Moore. John's one weakness, as in the 007 films, is his attraction to the opposite sex.

His mission is to recover the new super-secret stealth fighter. A power-crazed Paraguayan, General Manigua, and the Russians are the most likely suspects, so John dons his tuxedo and sets off on his quest. To help him he has a briefcase packed full of top-notch secret agent goodies. A passport forger, a cable-watch, a cutting pen and a pack of rocket launching cigarettes (Broom & H) are at his disposal.

For this adventure, Delphine improved the graphics considerably. The new larger sprites really work well



At passport control and Glames finds himself in the bathroom. A forged passport is required, maybe one of his secret gadgets could come in handy

and enable you to see the characters a lot better. Everything about the game oozes class. Even the sound effects add to the atmosphere and seem as though they've been developed properly rather than just added as an after-thought.

Operation Stealth is packed full of girls, guns, snappy dressing and special gadgets. For Amiga James Bond fans everywhere, this adventure represents your wildest dreams come true.



"Mr Bond, err, I mean Mr Glames, I've been expecting you!" Operation Stealth, the best Christmas 007 movie that never was and never will be

If you want to give your games collection a boost, then this compiled offering from French supremos Delphine and Brummie wonders US Gold could do just the job.

Jonathan Maddock says bonjour to a bulging box of brilliant games

Delphine

CRUISE FOR A CORPSE

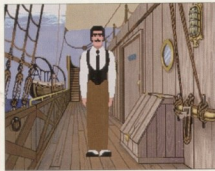
Delphine's next foray into the adventure games world was radically different from what they had created before. Although the graphics in Future Wars and Operation Stealth were brilliant, the ones to be found in this adventure were far better.

An innovative 3D aspect was introduced and this created some depth to the two-dimensional pictures that appeared on the screen. Cruise for a Corpse is a high seas murder mystery, very much in the style of Agatha Christie. You play the part of Inspector Raoul Dussentier who has been invited on a dream cruise in the Mediterranean. Before Raoul can even sit down in his deck chair, a crime is committed and his investigative services are called upon. The crime in question is murder.

The host of the cruise is killed and with a gaggle of suspects that all look guilty, you, as Raoul, have not got an easy task ahead of you.

The adventure features the same point 'n' click interface as used in previous Delphine games and looks and sounds as good, but for some bizarre reason Cruise for a Corpse just doesn't work as well.

Maybe it's just me, but you seem to wander around for ages without actually solving anything. This is a real shame as Cruise performs superbly at just about every other aspect of the game.



The graphics are exquisite and this new 3D aspect gives the game more depth than Delphine's previous efforts

ANOTHER WORLD

At this point in Amiga games history, Delphine was obviously beginning to get tired of the whole point 'n' click adventure scenario and decided to do something a little different.

Another World is a definite mixture of adventure and full-blooded arcade action. You are Les, a scientist who has a fondness for sub-atomic particles. A small lightning disaster later and Les finds himself transported into another dimension.

Following an encounter with a bunch of evil enslaving aliens, our ginger-haired hero must escape back home with only an alien chum and a bloomin' big gun to help him.

The game is controlled via the joystick rather

than the mouse, but is still packed full of great puzzles and problems for your adventuring brain to solve.

The graphics are yet another step above Delphine's previous releases. The animation is incredible and you get the feeling that you're taking part in a motion picture blockbuster.

Another World is highly playable and very addictive. You will play and play until you eventually complete the whole caboodle, but then you'll wish that you hadn't so you could play it a bit more.

I heartily recommend Another World to everybody. If you haven't got this in your games collection then this pack is definitely for you.



Les finds himself in Another World with a vicious alien beastie hot on his heels, and I hear the local aren't too friendly

Classic Collection

FLASHBACK



I declare Flashback the greatest game on the planet. Anyone who disagrees can have me a fight anytime, anywhere

For some unexplainable reason, I missed out on playing this game when it first arrived in the office, even though we raved about it! This compilation review allowed me to play Delphine's Flashback for the first time and I have to hold up my hand and say that I was completely amazed.

Put it this way. I got more enjoyment out of this adventure than anything else

I played in 1994.

Building on the success of Another World, this game follows along the same sort of style, only a lot more violent. The character is a hybrid of various people. One minute you feel like James Bond and then Indiana Jones, then the minute he pulls out his gun you turn into Mr White out of Reservoir Dogs and in the more hectic moments you could well become Travis Bickle at the end of Taxi Driver.

All those film characters come to mind simply because Flashback is more a cinematic experience than a mere computer game. Words can't do justice to just how good the graphics and animation are.

In the playability and addiction stakes, you can't go far wrong. Flashback is the game I dream about and I can only thump myself in the face every morning for missing it first time around. I would buy this compilation pack for this game alone and I can't recommend it more highly than that.



Packed full of gunfights and acrobatics, Flashback not only looks and sounds gorgeous, but is also as playable and as addictive as hell itself

Publisher:	Klax
Developer:	Delphine
Disks:	16
Price:	£29.99
Genre:	Arcade/Adventure
Hard disk install:	Yes
Control system:	Joystick/mouse/keys
Supports:	A500/600/A1200/4000
Recommended:	60000

OPINION

91%

If you like Delphine games, god knows I do, then I would advise every Amiga owner to buy this pack. Obviously, most of you will have most of, maybe even all of these games, but for those who are bereft of these wonderful pieces of software, I suggest you buy it as soon as you can before the pack sells out entirely.

Considering the type of games that are in this compilation, I advise a hard-drive to get the most out of the games, but it is by no means essential.

For just £30 this pack will, literally, provide months and months of entertainment.





Personal Paint



*Creates Stereograms!
(SIRDS and Pattern,
as in "Magic Eye")*

PERSONAL PAINT IS A powerful and intuitive paint, image processing, animation and 24-bit printing package. Employ stunning effects like transparencies, emboss, water-colors and stereograms (as in "Magic Eye"), while virtual memory frees precious Chip RAM by using other storage resources! Plus: full support for RTG display boards, different file formats (IFF, GIF, PCX, encrypted, C source code, Amiga DataTypes), nine brushes, two independent working environments: animation storyboard, Bézier curves, autscroll painting, professional color reduction, superior text editor, color fonts, PostScript output (b/w, color and separations), screen grabber...

The large picture shows, among other things, practical applications of Palette Merge and Color Average Resize (used to scale and combine all items), Color Quantization (applied to 24-bit images), Gradient Fill and Alpha Channel (used to create the shadow) and various other image processing effects.

Amiga® Paint, Image Processing,
Animation & 24-Bit Printing Software



NEW!
V. 6.1
Animation, Stereograms, Virtual Memory,
Transparency Effects, Alpha Channel, RTG
Storyboard, Fast Machine Language Code,
24-Bit Printing, New Desktop Drivers, DataTypes

From the International Press

Animation is fast and effective, particularly because of the innovative storyboard feature. Virtual memory is fantastic! If you don't have enough real memory in your machine...

The image processing tools are beautiful and versatile as always, and the 24 bit printing is again excellent. It certainly pushes printers to their limits, and the results may vary with superior aim.

PPaint is unbeatable at handling the palette and in remapping quality.

Fast handling on PPaint has always been fantastic. I like the way that you can type directly over the screen and still use the cursor and delete keys for editing, even if you've typed a whole screen full of text.

The alpha channel is simple to use and set a very powerful feature normally found on expensive 24 bit programs.

Rating: 9/10

Gary Foster, Amiga User International, Great Britain

What do IBI users, C programmers, Bridgeboard users and Amiga artists have in common? Give them all a copy of Personal Paint and see if IBI is not...

Paul Harrison, Amiga World, USA

That installer happens to be one of the friendliest and most intelligent I've had the pleasure to use. PostScript output is fully supported by a great program...

*I see *** do that!*

Rating: 9/10

Amiga Story III, Amiga Drive Under, Amsterdam

A excellent piece of software: stable, user friendly, fast. It is packed with unique features that make it very precious in many difficult situations: color quantization, palette merge, image processing, PostScript color separation, professional Professional printing and many more.

Highly recommended, both to novice users, who will take advantage of the excellent documentation and the intuitive user interface, and to experienced professionals of different fields such as graphics, DTP, programming and multimedia.

Rating: 9/10

Edkard, Amiga Magazine, Italy

As a professor of plastic arts and counselor at the film institute, I'm always in search of tools which succeed in combining ease of use with a range of original functions. My most recent discovery has been Personal Paint.

This time, I don't need a dictionary to read the manual. It is direct, clear and concise. It is abundant, yet simple and perfectly accessible to the beginner.

Christian Hanneaux, AmigaNews, France

... If you cannot believe all this is for free, read our review.

Rating: Editor's Choice

Amiga User International, Great Britain

Rating: 9/10

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

Amiga User International, Great Britain

RRP £ 59.95

OFFICIAL UK DISTRIBUTOR:

Ramiga International Ltd

Telephone 0690 770304

Fax 0690 770266

Shablon 'Rin

Pentrefolias, Chyd LL24 0HT



C l o a n
t o p e r
s o n a l
P a i n t
I m a g e
P r o c e
s s i n g



**Animation Features: Storyboard,
Superior Compression, Multiple
Palettes, Frame-by-Frame Timing...**

£89.95

£89.95

SYSTEM

TapeWorm

FS

URNS YOUR
PE DRIVE INTO
A MEGA DRIVE.
by a team of...

JRA

PLUS

- TURNS YOUR
 TAPE DRIVE INTO
 AN AMIGADOS
 VOLUME.

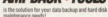
- Makes a tape drive act like a removable hard disk.
- Complete support for SCSI tape drives.
- All versions of a file on tape continue to exist and are accessible.
- Fast access to large amounts of data.
- Complete support for subdirectories and multiple volumes.
- Ideal for use with video and animation systems.



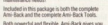
FILESYSTEM

TapeWorm **FS**

Turns your Tape Drive into an AmigaDOS volume. Supports SCSI DAT, 8mm, and QIC tape drives. Drives that support SCSI II fast search mode are recommended. Requires AmigaDOS 2.0 or higher.



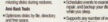
The key to ease-of-use lies in elegance of design. Anti-Back Tools allows you to operate a host of advanced capabilities through an extremely intuitive user interface.



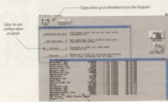
complete control over the backup process, while Anti-Back Tools makes the job of optimizing your disks for speed or recovering lost files a snap.

Here are some of the reasons why Anti-Back Plus 10 is the All-in-One solution for you:

- [illegible]



- Helps you recover the file system even if RAID disk operation is interrupted making the safest program available!
- Finds and fixes disk structure problems that prevent normal operations.
- Password protection, Onix and Avira support included.
- Supports all Acronis Image including Acronis OS 2.0.
- Antivirus, anti-malware.



Get directory listings, copy files to your hard disk and do any operation you can with a file.



A variety of options allow you to customize the system operation to the customer, complete responsibility with no down time.



RAMIGA International Ltd.
Stabllau 'Rin,
Pentrefochas,
Clwyd
LL24 0HT

UPGRADE PATH AVAILABLE TO QUARTERBACK USERS – CALL!

RAMIGA International Ltd., Stablau 'Rin, Pentrefoelas, Clwyd LL24 0HT

Tel: 0690 770304 Fax: 0690 770266

Official European Distributor



Sean Griffiths, the man who conceived and designed Rise of the Robots, began the project with high ambitions. Feeling that too many games were visually compromised, he put forward a plan to create the first game ever to incorporate film quality, controllable 3D graphics.

While the game has had a controversial reception, with some reviews (including our own) reflecting disappointment with the actual playability, no-one is disputing that this is one of the most visually stunning releases in the history of computer entertainment.

In fact, it's no overstatement to say that Rise represents a significant step towards the future of the electronic

Beauty in

game. Flawed it may be, but its move in the direction of a more cinematic style of entertainment reflects a growing trend towards sophistication in leisure software.

So how are images of such complexity and realism brought to life? In the case of Rise, it started with the simple but bold idea of creating a fully rendered game. But bringing that idea to

fruition required a team combining unusual skills from beyond the realm of game coding, not to mention a lot of ground-breaking experimentation.

The making of a monster

Sean Griffiths (distinguished from another Mirage Sean as SG) had already established his credentials as a designer before the Rise project.

A member of the Bitmap Brothers, he'd been involved in classy hits like Speedball and The Chaos Engine. When

he came up with the idea for Rise, however, he decided that 3D rendering packages offered a new potential for computer gaming. To take advantage of the new possibilities, however, the Mirage team had a lot to learn.

MODEL

The robots were designed using 3D Studios on a PC - Lightwave PAL didn't exist at the time. This gave Mirage the chance to build models and animate them with an unprecedented level of realism.

While SG was learning to use the system, he copied a toy robot kit to

system analysis

When Mirage started designing Rise of the Robots two years ago, they aimed to take the art of in-game graphics to a new level. Gareth Lofthouse reports on how they created a new cinematic look

Tricks of the trade

Rendering - A mathematical process in which the computer paints a virtual world on the basis of the information provided by the designer.

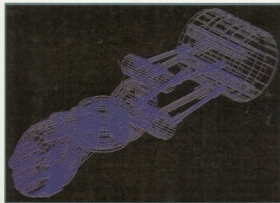
Ray Tracing - This determines the visibility of surfaces by tracing imaginary rays of light from the viewer's eye to objects in the scene.

Gourard Shading - This has been a bit of a buzz term in gaming circles. Named after the mathematician who invented it, it's a technique to smooth over the blocky polygons on a model's surface.

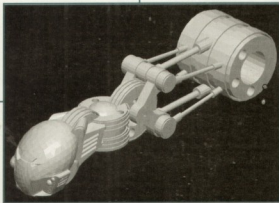
All the 3D models are built from small triangles - these are the polygons. To create a smoother effect, Gourard shading places a highlight in the centre of each triangle, creating the impression that it is curved.

Phong shading - Although the Gourard technique brings excellent results, it doesn't round the polygons at the edge of the model. This is because it would have to make calculations that involve the background scenery as well as the model itself.

Phong shading can do this, however, allowing images of increased quality to be created. Unfortunately, it takes about twice as long to complete as Gourard shading, and at the moment animating it in real time is not practical in games. **Real Time** - Animation with 25+ frames a second - like you'd expect from video.



The original mesh for the Loader robot's head



First the polygons are generated...

the beast

The art behind the code

Despite the undeniable high-tech aspects of the game, giving Rise its visual style required large doses of old-fashioned artistic flare. You only have to see the cinematic sequences to realise that game design is getting closer to movie production.

Like a film crew, the developers had to take into account such considerations as light and ambience. For example, a diffused light source was used to soften shadows, creating a more natural effect.

Another challenge arose when creating textures that

suited the robots, since the team felt the ones supplied with 3D studios had been overused. The original Rise droids had clean plastic surfaces, an effect that left them looking too wholesome to do the job.

They found that a reflective chrome effect could be achieved quickly by wrapping a picture around an object, and Kwan Lee came up with the idea of creating the corroded texture that makes the industrial robots look rough and dirty. Small touches these may be, but they proved vital in creating a more impressive look.

develop the meshes. He claims that this was an ideal introduction to the rendering process because, as with the kit, the Rise robots were assembled from a multitude of separate components.

In other words, instead of modelling the kit as a completed whole, SG drew each body part on its own. This helped him learn how to assemble the robots from a combination of spheres and other objects, distorting them along the way to create the desired effect.

BUILDING

When the idea had been explored enough to be sure it could work, it was Sean Naden who actually built the robots. A qualified technical illustrator, his experience outside the games industry proved invaluable.

Sean's brief from SG was to create a range of strange and ferocious mechanisms, each one looking more technically advanced than the last, until they reached the level of the Supervisor, the toughest robot of them all.

By far the most time-consuming

The much vaunted morphing technique, reminiscent of Terminator 2



aspect of the game's development, the first model alone took months to complete.

In the meantime, Mirage turned to a professional interior designer, Kwan Lee, to create atmospheric backgrounds with a real sense of depth. In contrast to the round-the-world scenery behind most beat-'em-ups, Kwan concentrated on the game's story by creating various levels of the Electrocorp complex.

The task of animating the robots fell to Andy Clark and Gary Leach. In a process which had many similarities with traditional stop-motion animation, they

found making movements convincing a difficult art to learn.

In fact, though the robots were looking tough in still frames by this stage, when they were first put into motion they looked about as impressive as Godzilla. The team had to study martial art moves to endow their robots' kicks and punches with the impression of real force.

Having said this, SG confessed that

For the future

Graphic art in computer entertainment is heading in the direction of realism and detail, and rendering is possibly the most important aid in these developments.

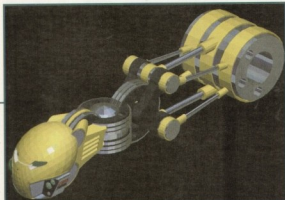
This leaning towards realism is natural, because it's the type of animation that computers perform well. Rendering can transcend manual techniques by introducing more complicated motion or more detailed images.

Mirage is convinced that this is the way computer games are going. Adrenalin(E) Factor, a game currently in development, is like Cannon Fodder but with a difference: It will boast beautiful, fully rendered sprites.

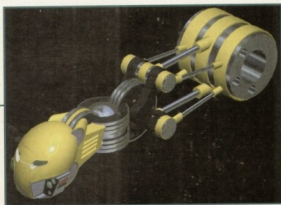
At the time of writing, Rise is riding high in the charts, a fact that undoubtedly has something to do with the visual pull of its graphics. Gamers want images of an increasingly impressive quality all the time; with Rise of the Robots, Mirage has laid down a path to the future.

the computer animator does have considerable advantages over the traditional artist in many respects. While the Rise project may have taken time, rendering is considerably faster than the old methods.

3D Studio's interpolation facility, for example, meant that the animators only had to create the key frames in a robot's movement because the program would then automatically fill in the missing gaps. It's features like this that make computer animation less labour intensive.



...then the model is mapped with texture and colour



An example of what can be achieved with Phong shading

What with the recent release of *Rise of the Robots* and *Mortal Kombat 2*, you'd think that it would be rather a bad time to release a beat-'em-up of your own. Gremlin Interactive have done exactly this with its latest offering, *Shadow Fighter*, so they must know something we don't.

Gremlin believes, that its beat-'em-up, created by Italian developers, NAPS Team, will kick its competitors out of the ring and claim the spot at the top of the charts for its very own.

Some of you probably haven't heard anything about *Shadow Fighter*, mainly because of its low-key release and the fact that the other two contenders have been backed by massive TV advertising campaigns which have been practically force-fed and rammed down your throats.

Shadow Fighter features everything you'd want in a beat-'em-up with its special moves, secret manoeuvres and its 16 characters, all with their own fighting styles and personalities.

So how does Gremlin Interactive's game fare up against the combined might of *Mortal Kombat 2* and *Rise of the Robots*?

Will the big boys beat it up and toss it aside like a rag doll, or will the underdog, Shadow Fighter, put in a sterling Rocky-style performance and claim the beat-'em-up championship belt for its very own, after knocking its opponents down with a strength-sapping punch in the last minute of the final round of the fight?

INTRODUCTION

Just when you thought there were far too many beat-'em-ups around, Gremlin comes kicking and punching into the genre with one of its own. Jonathan Maddock fights in the review corner

Shadow



Kury is up against Lee Chen, famous for what he can do with one hand. Looks impressive and believe you me, it hurts like hell



While you wait for the fighters and backdrops to load up, you can read the wealth of information on the various characters



Yurgen, who obviously once appeared with the Village People, goes for Electra, but a nifty jump later and she's out of trouble.

STORYLINE

Kiyoa Mishuma, is a seventeenth century Samurai held in high esteem by his Emperor and the people for his honourable and disciplined life. He is a man blessed with an agile mind and his skill with a sword was unrivalled.

Plagued by dreams, he longed for more fame and wished to become a living legend. Chronozon, keeper of the abyss and gateway to the after world, found Kiyo's dreams very interesting. He dispatched his personal servant to claim his noble soul, for such a soul would be highly prized by his master.

One night, Kioya woke up with a start to find a shadow standing at the foot of his bed with a globe of light in its hand. All the dreams that had troubled him were in the globe, there for the taking. Kioya had been blessed by the silent messenger.

His feats across the kingdom became legendary, and it was said that Kioya could achieve the impossible. Soon his confident swagger was despised by the other Samurai. Kioya had begun to abuse his status and people saw him for the false idol that he was.

Kiyoa rebelled against his doubters and in a rage, killed countless of his fellow Samurai. This deed did not go unnoticed. Chronozon dispatched his demons to curse Kiyoa's now worthless and foolish soul. Cursed to become one of the walking dead, Kiyoa's only wish now was that of release from his torment.

Eventually he offered a tremendous reward to the individual who could give him peace, someone who could overcome his formidable combat skills. Fighters from all around the world began combat, for the honour of pitting themselves against the Shadow Fighter – perhaps the greatest fighter who ever walked the earth.



Training in Shadow Fighter is absolutely brilliant and could almost be a game in itself, and Pupazz is the most vicious shop tailor's dummy ever seen



fighter

SOUND

Audio has been a bit of a problem for the latest beat-'em-up releases. Brian May's guitar twiddling in *Rise of the Robots* is pathetic, and the so-called tunes in *Mortal Kombat 2* are bog-standard coin-op compositions and I wouldn't dream of letting them damage your ear-lobes. *Shadow Fighter*, on the other hand or should that be ear, is superb, simply because it has an extremely strong soundtrack.

The menu music, with its fast breakbeat, sounds okay, but the fun really starts when you start fighting. A range of tunes with a banging beat and some mad acid squelches really do enhance the overall atmosphere.

The sound effects aren't anything to shout about, but they do the job adequately enough, with plenty of thumps, bumps and smacks in all the right places. The simple fact that *Shadow Fighter* sounds better than any of its recent competitors is a good enough reason to rave on about the soundtrack, and thus it gets a big thumbs up from me.

75%

Krhme, one of the most dangerous characters in the game, demonstrates one of his morph moves to a bewildered Toni



Top Knot knocks the 14-year-old Toshio off his feet. A nasty thing to do perhaps, but wait until you see him perform his special moves



The championship and you must choose your character. Play the game on easy or normal level though and you won't be able to select everyone



GRAPHICS

The first thing that'll you'll notice when you pick up the *Shadow Fighter* box is the artwork on the front and just how good it looks. Gremlin Interactive hired Greg Staples, the highly-rated 2000AD artist responsible for the art in strips such as *Satine* and *ABC Warriors*, to produce the cover art and provide illustrations for all sixteen characters. So, before I even loaded the game I was already impressed by the presentation of the product.

Thankfully, this style continues when you start to play. There is no fancy and mind-numbingly dull introduction, so you're able to get straight into the action without any trouble at all.

The characters are superb and whichever one you choose, you won't be disappointed because each has an astounding set of moves, special or otherwise and, to be perfectly honest, they're so original it's like a breath of fresh air in the world of beat-'em-ups.

The backdrops are nicely drawn and are linked with whatever country the fighters are fighting in. The countries aren't even bog-standard ones. You can scrap your way around the world in places such as Denmark, Thailand, Pakistan, Tibet and to make things even more different, there's even a space level for you to enjoy.

For an A500/600 game, *Shadow Fighter* really does perform at the highest level. OK, so maybe the characters are lacking colours in places, but this isn't an AGA version and with sixteen characters you'd be hard pressed to find 32 colours that suit every fighter. A1200 owners have no need to fear though, because a super-enhanced version will be forthcoming, complete with 256 colour graphics, and I'm already drooling at the mere thought of it.

80%

Publisher: Gremlin Interactive
Developer: M.A.S. Team

Boxes: 4

Price: £29.99

Score: Beat-'em-up

Hard Disk Install: No

Control System: Joystick/JoyPad

Supports: A500/600

Recommend: 80000

OPINION

90%

This A500/600 version of *Shadow Fighter* may not look as tasty as its other two beat-'em-up rivals, but it plays a lot better. The characters are as original as anything I've seen in the genre, as are all their special moves, and there are so many nice touches I simply don't have the space to tell you about them all.

For example, the training session, where you face

another character called Pupazz who is basically a stuffed training dummy, is a brilliant idea. This allows you to test all your special moves and although Pupazz looks harmless, he packs quite a few surprises.

The way the control system is set-up is well done and it won't be long before you're going through various combinations of moves with the greatest of ease.

Shadow Fighter works well as a two player, but surprisingly enough the one-player game is just

as good. It's very tough and you'll need plenty of hours practice before you meet the *Shadow Fighter*, but at least you progress unlike *Mortal Kombat 2*.

As far as beat-'em-ups go on the Amiga, I've been more than pleasantly surprised by *Shadow Fighter*. It could go on from strength to strength after the release of the AGA version and finally take the beat-'em-up crown away from games like *Body Blows* and *Mortal Kombat*. *Shadow Fighter* is, quite simply, thumping good fun.



At the start of the game there is little competition, allowing you relative safety



The nice Harkonnens have come to visit and show their shiny new weapons to the Ordo

00000 system essentials

We return to give you the lowdown on what's hot and what's not in the world of re-releases. This month, a below average racer and an above average strategy game fight for your hard-earned cash.

Dune



This strategy game was hailed as a classic when it was first released, and after a brief revisit as a member of a compilation pack, it has now been re-released on Ocean's Hit Squad label.

The dusty planet of Arrakis, also known as Dune, has only the form of the spice Melange in the universe. It is known to provide healing powers and can prolong a human's life, letting them live for hundreds of years. It is also a very rare commodity, and much sought after, especially by the planet's Emperor who has landed himself in considerable debt.

In his haste to mine the spice, the Emperor has allowed three different houses to compete for the privilege of being the sole spice miners. The three houses are all very different, and each has its own strengths and weaknesses. The 'evil' Harkonnens start with a superior army, while the house of Atreides has the secret support of the Emperor's crack troops. Although the game is mostly strategic, it shouldn't put off people who are not particular fans of the genre. The game's engine has been designed so that it is very easy to use, and while it sometimes runs quite slowly, especially in the heat of battle, it is helped slightly by the extensive list of keyboard commands.

The early missions merely consist of mining a certain amount of spice, but later on you are also required to destroy the enemy's base. The further into the game you travel, the more weaponry is available to you. This makes the game much easier, but you still tend to be sometimes less developed than your foe.

The game spans five disks and runs through AmigaDOS. Although this can sometimes provide quite extensive accessing times, it means that it is easily hard-drive installable. This is to be recommended, as is a fast Amiga. Because the disks lack copy protection, the games lengthy manual is used and is unobtrusive as well as effective.

Dune 2 was well worth buying when it was first released, and now that it's under fifteen pounds it's a veritable bargain. If you're a strategist on a budget, or missed it the first time, this should be put right on the top of your purchase list.

80%

Publisher: Hit Squad

Developer: Virgin Interactive Entertainment

Disks: 5

Price: £14.99

Genre: Strategy

Hard disk install: Yes

Control system: Mouse

Supports: A500/600, A1200/4000

Recommended: 68020



Bump 'n' Burn

Publisher: Erebus
Developer: Erebus
Risks: 1/5
Price: £24.99
Genre: Driving
Hard disk install: N/A
Control system: Joypad/Joystick
Supports: G32
Recommended: N/A

When the floppy version of Bump 'n' Burn was first released on the Amiga, it was met with mostly good reviews and Grandslam is obviously hoping to emulate its success with its shiny new CD32 version.

Bump 'n' Burn is set in Toonia's seven kingdoms, each having a different cartoon theme ranging from 'The War Torn City' to the compulsory Ice levels. Each scenario has its own character, who has its own properties and 'personalities'. Although these fail to drastically alter the game play, they make it slightly more amusing in two-player mode and offer a bit more variation.

There are a total of seven tracks available for you to compete on as you travel around Toonia, and can be completed in any order. To qualify you are required to finish in at least fourth place, with your position depending on how much

money you make. Grandslam has attempted to use the whole of the CD32's colour palette, and occasionally the tracks become so garish it makes it hard to tell exactly what is going on. The main sprites and backdrops, however, look good and improve on the original A500 version immensely.

As you race through the game, you

can collect various 'power-ups' haphazardly littered around the track. When you first start playing they appear to do very little, and only add much excitement to the game in two-player mode.

This version is almost exactly the same as the A1200 release, and the levels hardly fill a CD. The inclusion of a tacky Amiga voice-over before the race enhances the cartoon feel of the game, but quickly palls after the first hearing.

This game is aimed at the younger end of the market, but the difficulty level and restrictive playing area make it quite frustrating. It's definitely not recommended for people who have the original game, and owners without the original should take a long look before purchasing.



The sprites and backdrops in Bump 'n' Burn complement each world as you travel around Tooniaville

40%

SILICA ARE NOW IN 18 BRANCHES OF
DEBENHAMS
SEE BOTTOM PANEL FOR DETAILS

NEW!

AMIGA CD³²
CRITICAL ZONE PACK - WITH 7 CD TITLES

CRITICAL ZONE 32-BIT SYSTEM PLUS! 7 CD TITLES

- 32-BIT POWER
- BUILT-IN DUAL SPEED CD-ROM DRIVE
- 16.8 MILLION COLOURS
- ALSO PLAYS AUDIO CDs
- 11 BUTTON CONTROLLER
- TITLES AVAILABLE FROM £14.99
- OPTIONAL SX1 COMPUTER MODULE
SEE BELOW LEFT
- OPTIONAL FULL SCREEN VIDEO CD MODULE
SEE BELOW LEFT



MORE THAN JUST A GAMES CONSOLE...

WATCH MOVIES

Simply plug into the back of the CD³² console and you'll be able to play back movies with digital picture and sound.

£199 INC VAT
NAB MODULES
CCA 0100
EXPECTED DURING 1995

COMPUTER UPGRADE

Turn the CD³² into a fully functional Amiga 1200 compatible computer.

£199 INC VAT
SX1 MODULE
CCA 0100

£39 INC VAT
KEYBOARD
PKE 0100

£59 INC VAT
DISK DRIVE
DRI 1100

A COMPREHENSIVE RANGE OF TITLES

JUST SOME OF THE 100+ TITLES AVAILABLE ON CD FOR THE AMIGA CD³²

NEW RELEASES!	
ALien Breed Tower Assault	£29.99
Rise of the Robots	£34.99
World Cup Golf	£29.99
SubWars 2050	£29.99
Super Stardust	£29.99
Theme Park	£34.99
Soccer Kid	£19.99
Speedball 2	£14.99
Top Gear 2	£29.99
Vital Light	£29.99

PACK INCLUDES:
CD³² GAMES CONSOLE
CANNON FODDER
DIGGERS
LIBERATION
MICROCOSM
OSCAR
PROJECT X
ULTIMATE BODY BLOWS
NON-PC
TOTAL VALUE: £462.92

£239
INCLUDING VAT + CDD 3450
FREE DELIVERY
BY UK MAILMAN

PHILIPS
COLOUR MONITOR
Sharpen your output with the high quality 14" RGB + Composite, Stereo Monitor.

£219 INC VAT
MCA 0001 - Price value CDD 3450 £1.00

THE SILICA SERVICE

Before you decide WHEN to buy, we suggest you consider WHERE to buy and protect your investment with a purchase from Silica. With our unmatched experience and expertise, we will provide all the advice, help and product information you may need both now and in the future. Visit one of our stores, or return this coupon now and begin to experience the "Silica Service".

Silica

WORK IN 18 BRANCHES OF DEBENHAMS

STORES NATIONWIDE

- **ESTABLISHED 18 YEARS:** We have a proven track record in professional computer sales.
- **PART OF A CDM A YEAR COMPANY:** With over 300 staff - We are solid and reliable.
- **EXPERIENCED STAFF:** All are "Customer Care" trained and at your service.
- **TECHNICAL SUPPORT:** We offer help and advice from a team of experts.
- **A FULL PRODUCT RANGE:** All your computer requirements from one supplier.
- **"PRICE" MATCH:** We match on a "like-for-like" product - Same price - Same basis.
- **PRICE CATALOGUES:** With special offers and promotional news.
- **PAYMENT:** We accept most major credit cards, cash, cheque or monthly terms (see terms and conditions on request).
- **VOLUME DISCOUNTS AVAILABLE:** Business, Education and Government.
- **FREE DELIVERY:** Free delivery in UK Mainland on orders over £500. Small administrative charge (£2.50) on orders under £500.
- **STORES NATIONWIDE:** 18 stores including 18 in branches of Debenhams.

MAIL ORDER 081-309 1111
PLUS TECHNICAL AND HEAD OFFICE

BRISTOL Debenhams - Bristol, 21 James Street, 0272 291621
CARDIFF Debenhams - Cardiff, 21 David's Way, 0222 241578
CHILWORTH Debenhams - Chilworth, 21 High Street, 01463 300511
CRYDUN Debenhams - Crydun, 11-13 North Lane, 081-888 4440
GLASGOW Debenhams - Glasgow, 37 Regent Street, 041-671 0000
GUILDFORD Debenhams - Guildford, Market Street, 0443 301300
HARLOW Debenhams - Harlow, Station Road, 081-497 4300
HULL Debenhams - Hull, Progress Street, 0482 251511
IPSWICH Debenhams - Ipswich, 21 High Street, 0473 213110
LONDON Debenhams - London, 52 Tottenham Court Road, 071-586 4000
LUTON Debenhams - Luton, Armada Centre, 0525 21611
MANCHESTER Debenhams - Manchester, Market Street, 061-832 0000
PLYMOUTH Debenhams - Plymouth, Regent Parade, 0752 206666
ROBINSON Debenhams - Robinson, 21 High Street, 0161 766666
SHEFFIELD Debenhams - Sheffield, The Moor, 0742 788111
SOUTHAMPTON Debenhams - Southampton, Commercial Road, 0703 273888
SOUTHEND Debenhams - Southend, High Street, 0702 482424
THURINGHAM Debenhams - Thuringham, Lakeside Centre, 0708 855587

To: Silica, AMCOM-029-231, Silica House, Hatherly Rd, Solihull, B37 4JX

PLEASE SEND INFORMATION ON AMIGA CD³²

Mr/Ms/Ms/Ms: _____ Initials: _____

Surname: _____

Company or surname: _____

Address: _____

Postcode: _____

Tel (Home): _____

Tel (Work): _____

Which computer(s), if any, do you own? _____

NOTE: Additional credit and qualifications may charge. Please attach the coupon for the above information.

AMIGA

Snippets

COMPUTING

AMIGAHOOLICS P.D.

THE 100% AMIGA P.D. LIBRARY

We stock: Street Fish 1-1000, Music, Assassins Game, Decks, Utilities, Shooters, Action, Sports, City Art, Demos, L.S.D. Legal Tools, Cheats and more

Here is just a small selection:

UTILITIES	
LibraFile	Great Word Processor (20K)
Paradox	Link Two Machines
Magnus	Disk Map Creator
Geoplane	Background Prog. Monitor
Snippets 1.01	Latest version
9.5.3 Disk	Hard Drive Menu System

GAMES	
Overlander	Great Mass Battle game
Managers	Chess B-Games on Amiga
Sea Island Manager	Great Strategy
Shogun	"Tigra" with sounds

FREE: Xmas Music Disk with orders of £25.00 or over
Send 50p for Cat. Disk includes FREE game

I Disk £1.50	Send Cheques, P.O. to:
Each extra disk £1.00	AMIGAHOOLICS P.D.
Order 1 get 1 FREE	Dept. AC
Order 2 get 2 FREE	128 CROFT ROAD NORTH
Order 3 get 3 FREE	KIDDERMINSTER, WORCESTER, DY10 1TE
Order 4 get 4 FREE	FREE P&P
P.O. GOOD LUCK TO:	all orders acknowledged
AMIGA INTERNATIONAL	

BUS STOP PD

What do you want from a PD Library?

- 24 Hour Turnaround?
- Possibly the best catalogue in the country?
- Friendly service run by women?

All this for 90p per disk?

Then send 50p to our catalogue of 2000+ disks to:

Dept. C02, 2 Wyelfie Terrace, Gilmorton Road, Lutterworth, Leicestershire, LE17 4JX

To place an ad on this page call Barbara Newall on 0625 878888

Copy dates:

March	20 Jan	On sale 9 Feb
April	17 Feb	On sale 9 March
May	17 March	On sale 6 April

Free typesetting service provided

49.5mm x 35mm

103mm x 35mm

49.5mm x 74mm

Phil's AGA PD

☆ All disks cost 50p each

☆ Over 350 disks of AGA PD.

☆ All orders will be dispatched

within two days of receipt.

☆ Fast and friendly service.

☆ 100% reply to all mail.

For a catalogue disk send a 10p cheque to: S.A.E. to:

Phil Woods, 101 Canon Road, Gungahlin, ACT 2015

50 TOP AMIGA GAMES

FOR ONLY £9.99 POSTPAID!!

These games are NOT Public Domain or Shareware!

They are ALL 1993 Copyrighted games titled!

Adventures, Puzzles, Platforms, Sports, Shoot-em-ups etc. Some of these games were MEGA-HITS

FUTURE SOFTWARE (AC)

8 Magnolia Park, Dunsmyre, Belfast BT1 0DS

ALL AMIGAS - 1 MEGABYTE MINIMUM!

Cheques and Postal Orders only

Fast Despatch on orders. Overseas add £2.00.



FUTURE ROLEPLAYER

The New Magazine For Roleplayers

Issue 1 features:

- A full roleplaying system
- A free disk offer

There are also articles, features and reviews covering all aspects of the computer roleplaying hobby.

An informed review section brings you all the latest info on what's about in the industry

And all this for just £1.99

On sale January 12 in all good game stores

To order your copy now send an

SAE with cheque or PO for £1.99 to:

Future Roleplayer, New Frontier

Publications, 6 Woodsetts Road,

North Anston, Sheffield, S31 7EO

THE AMIGA USER CLUB

★ FREE PD! ★

★ Membership Discounts! ★

★ FREE Bi-monthly Newsletter! ★

★ Special Offers! ★

Send SAE for details or telephone

EXAMPLE PRICES

Cannon Fodder £13.99

Blackjack (1200) £14.99

Bank Crypt £9.99

Civilization (1200) £15.99

MUS MATHS MORE!

We also supply Amiga Software/Hardware

to non members - telephone for details

SRG Computer Services

24 Butters Road, Broomfield, Ammanford,

Dyfed, S-Wales SA11 2HE

Tel: 0269 851529

BAK DISTRIBUTION

ACQUISITIONS

AMIGA POWER SUPPLY £27.50

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

ALMOND P.D.

Dept. AC, 10 AMPER DRIVE, CHILWORTH, LEIC. LE15 1JH

UTILITIES, LIBRARIES, SHOOTERS, GAMES, DEMOS, CLIMATE

MANAGEMENT, ACTION, 100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

100% 100% 100% 100%

GVB-PD

"G. V. BROAD ENTERPRISES"

AMIGA PUBLIC DOMAIN

AS LOW AS

10p

NO NONSENSE SERVICE

1 to 11 Disks £1 each

12 to 19 Disks 75p each

20+ Disks 60p each

GREBS include POST & PACKING

FRED FISH 1-1000 ASSASSINS GAME 1-220

NO MINIMUM ORDER

FOR A CATALOGUE DISK PLEASE

SEND 3 FIRST CLASS STAMPS

TO: GVB-PD, DEPT. AC, 45

RAIMER CLOSE, MAIDENHEAD, BERKSHIRE SL4 2TE, ENGLAND

OR PHONE ME ON 0831 649386

FOR MORE INFORMATION

Kickstart Your Amiga

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

Amiga Workbench 3.50

To place an ad on this page call Barbara Newall on 0625 878888. Free typesetting service available

AMIGA

An essential aid for the enthusiast, our monthly advice section returns to help you take your Amiga to its limits

GUIDE



Amos 140

The second instalment of our beginner's guide to Easy AMOS, courtesy of Phil South



AReXX 143

Paul Overaa looks at compound variables, the main mechanism for creating arrays



Comms 145

Phil South gets involved in the battle of the communication rivals, BT and Mercury



Video 147

Gary Whiteley takes you through the processes involved in making video titles



Music 149

A new sample editing program, Aural Illusion has arrived. Paul Overaa takes a look



Publishing 151

Ben Pointer reveals the ins and outs of writing and placing your subheadings



System Medical 136

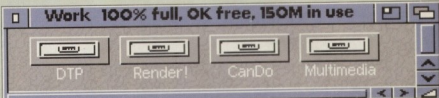
All the remedies you need to put your hard drive back on the road again. Frank Nord reveals all

Waiting at the green

The major problem I will be taking a look at in this, the third instalment of the system medical, is hard drives: how not to screw them up, what to do if you have done so and how to get around the problem occurring again. The most important bit of advice to give about hard drives is: never reboot or switch your machine off when your hard drive light is on!

Sometimes you just can't avoid doing this. If your machine has crashed and has locked the SCSI bus so that the light stays on you can do nothing else but switch off and restart. Sometimes you may completely fill your hard disk and a badly-written program doesn't recognise this so it keeps on writing. These sorts of situations should really be few and far between, unless you're the sort of masochist who revels in using bad and potentially dangerous software all the time. If these situations happen, however, the only thing you can do is bite the bullet and switch your Amiga off.

If you're still using version 1.3 you will almost certainly have real problems when you switch back on, but with a sensible



If you've got a 100 per cent full drive and your hard drive light is on constantly, it's time to go and make some tea while it validates

version of Workbench, the most likely thing to happen is that your machine will boot. However, this will be a lot slower than normal and it will look like your Amiga is trying to give itself a heart attack from the way the hard drive light constantly flashes and the noises it makes.

Fear not! Leave your machine to boot up and get on with repairing itself, for that is what it is doing. After a few (admittedly nail-biting) minutes, the hard drive light should have gone out and you will be left with a smoking heap of rubble that used to be your computer! Well, no, this is not true. You will

actually have a machine that should have sorted out its hard drive problem all by itself.

You will probably find that the file you were working on when the machine crashed is only partially retrievable at best, and in most cases it is best deleted altogether. If you find requesters popping up when you try to delete the file saying: "Volume Work has a checksum error on block 237465", then more work needs to be done.

If you have been paying attention to these articles and are a regular reader of

this magazine, you will remember that I recommended various bits of software for hard drive management some months ago. Did you go out and get them immediately?

I certainly hope so, because you will need either Upper Disk Tools, Ami-Back Tools, Quarterback Tools Deluxe or, possibly, Disk-Sav by Dave Haynie to get around our current problem without repartitioning your hard drive, and you should never repartition or reformat your hard drive out of necessity – this should be done only if you want to change the setup.

The job the software mentioned above

Running a virus checker makes good sense

In keeping with this month's general hard-drive kind of feeling, you should be somewhat worried about the possibility of infecting the largest bootable disk you have in your collection with some sort of virus.

Most viruses are not as interested in affecting a hard disk as they are in infecting a floppy one, but there is always a risk, so it is in your interest to be constantly running a virus checker of some sort or another. I favour John Veldhuis'

Virus Checker, but there are several others available.

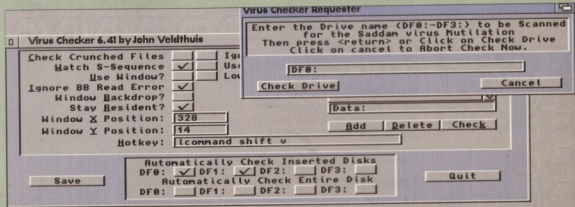
By way of allaying the fears of several people who have written to me, I would just like to say that, while viruses are nasty and can ruin your disks, there are several things they certainly aren't capable of.

The first is being able to hide in your real time clock. Nope, not a chance. Don't listen to anyone who tells you so. Secondly, they can't hypnotise you into committing mass

murder, so no using that as mitigation when you're in court.

Thirdly, they cannot destroy your machine. They might be able to wipe out all the data on your hard disk, but have no fears about your Amiga bursting into flames or other similar nonsense.

Be careful with your disks, hard or floppy, and they will come to no harm.



The Gulf war may be over but if Saddam gets onto your floppies, it's Kurds for them!

light

Does your hard drive lock and the system die of a virus? If it does, take heart as Frank Nord guides you out of the depths of despair

Amiga Medical Part 3



will do is pretty much the same, no matter which one you have running, but it's very important that you have at least one of the programs. You should use the repair function of whichever software you chose – for instance, Ami-Back Tools' repair function is called "Analyst" – and set it going.

In a matter of minutes you should have your drive back, hale and hearty, and at worst, missing your latest piece of work. This is still a lot better than losing everything because you thought you would have to reformat. Reformatting should never be done as a cure to this sort of problem – it's a bit like someone who has a cold resorting to euthanasia.

If it's your boot drive that has a problem, things might get a little trickier. It's possible your machine won't want to boot, or that it bails half way through booting. Don't lose hope yet – try booting from your original Workbench disk. Once your Amiga has booted from floppy you will probably find your workbench partition is going crazy trying to validate itself – relax, things are going well, honestly!

However, if you find you need to use your

hard drive repair program, it might need files that are on your hard drive to work, for example fonts or libraries. If so, you can try to assign the needed directories to the correct places on your hard drive, or even try rebooting from your hard drive now that it has been validated.

You might still have problems with booting because of the checksum problems, but you should be able to get something running, and, hopefully, that will be enough. If it still isn't enough, what you will need to do is make a boot disk with your recovery program installed on it, along with some other emergency tools such as a file manager, text editor and backup program.

Next month I'm going to be covering how to make boot disk, so tune in for that if you need any help with the aforementioned process of making your emergency disk.

This all seems like a lot of effort to preserve your hard drive's contents, but it is definitely worth it. If you just give in and reformat every time you have a problem you will never feel safe storing anything important on your hard drive, and this will limit its usefulness to

practically nil. In terms of keeping your data safe, in case of unrecoverable errors, it is definitely worth backing up your hard drive on a regular basis. I know it's a drag, but you'll get no sympathy from anyone if you lose everything.

The dangers from spikes or surges in the electricity supply are fairly minimal, unless you live in the depths of the country, and the chances of a head crash these days are zero unless you drop your machine onto a hard floor, so just make sure you never (all together now...) turn off your machine when the hard drive light is on.

Programming Information

If you are trying to write programs on your Amiga for any purpose it is a really good idea to write to Commodore for the Native Developer Kit which costs a paltry £23 and contains a wealth of programming information.

Write to: Sharon McGuffie, Commodore Business Machines UK Ltd, Commodore House, The Switchback, Gardner Road, Maidenhead, Berks SL6 7XA

SCSI = hard drives, plus lots more

Actually, SCSI means a lot more than just hard drives. Most people are now familiar with CD-ROM as a storage device for large amounts of data, and most people know that you can get CD-ROMs that work with SCSI or proprietary controllers.

But that is just scratching the surface. One good place to look for the more unusual SCSI device is in magazines devoted to machines other than the beloved Amiga, such as PC or Mac mags. You can find such things as tape streamers, Magneto-Optical drives, Exabyte or DAT backup drives and hard drives in sizes up to 2.1 Gigabytes and larger.

What's more, because PC and Mac dealers sell an awful lot of this kit all the time, the prices are usually a lot cheaper than Amiga dealers. However, PC and Mac dealers tend to be highly ignorant of Commodore's baby, and scornful, so it's best not to deal with them unless you are sure you will not need any technical help.



"It also equips CD-ROMs, DAT, Magneto-Optical, Scanners, etc., etc."



THANKS TO THE HUGE BUYING POWER OF AMIGA COMPUTING WE CAN GIVE
OUR READERS THE CHEAPEST HIGH QUALITY AMIGA UPGRADES AND OTHER
ESSENTIAL ACCESSORIES FOR YOUR AMIGA.

£7.99

**NEXT DAY DESPATCH
AVAILABLE FOR ORDERS
PLACED BY TELEPHONE
ONLY.
POSTAGE AND PACKING
FOR TURBO DESPATCH
IS £5**

OF YOUR AMIGA WITH MEMORY UPGRADE!

AMIGA A500



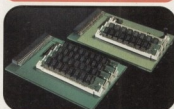
Upgrade to 1Mb

£12.99

Upgrade inc. Clock

£17.99

AMIGA A500+



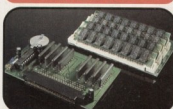
Upgrade to 1.5Mb

£13.99

Upgrade to 2Mb

£20.99

AMIGA A600



Upgrade to 2Mb

£22.99

Upgrade inc. Clock

£27.99

A1200

AMIGA A1200

Our A1200 upgrades come complete with clock and optional 25Mhz maths coprocessor. They fit in the trap door and feature full 32bit Fast Ram.

Upgrade to 4Mb

£129.00

Upgrade inc. Math

£154.00

Upgrade to 6Mb

£189.00

Upgrade inc. Math

£214.00

ORDER HOTLINE

04873 582

Lines are manned from **Monday to Friday 10am to 8pm** and on **Saturday 10am to 4pm**.

If you call outside these hours you can place an order by answer phone - just give the information on the order form in the order it appears. You might find it easier to complete the order form before calling so that you can read directly from it.

Please allow 28 days for delivery from when we receive your order. For non receipt of goods phone 04873 582 Monday to Friday between 10am and 4pm.

COMPO

AMIGA COMPUTING SPECIAL OFFERS
COMPO SOFTWARE LTD.
UNIT 3, GREEN FARM, ABBOTTS RIPTON,
HUNTINGDON, CAMBS PE17 2FF

PRIORITY ORDER FORM

Order by telephone by calling **04873 582 Mon to Fri 10am to 8pm / Sat 10am to 4pm**.

1. ORDER ITEMS (✓)

- ☐ Mouse.....£7.99
- ☐ A500 upgrade to 1Mb.....£12.99
- ☐ A500 upgrade to 1Mb inc. clock.....£17.99
- ☐ A500+ upgrade to 1.5Mb.....£13.99
- ☐ A500+ upgrade to 2Mb.....£20.99
- ☐ A600 upgrade to 2Mb.....£22.99
- ☐ A600 upgrade to 2Mb inc. clock.....£27.99
- ☐ A1200 upgrade to 4Mb.....£129.00
- ☐ A1200 upgrade to 4Mb (Copro).....£154.00
- ☐ A1200 upgrade to 6Mb.....£189.00
- ☐ A1200 upgrade to 6Mb (Copro).....£214.00
- ☐ A1200 CoProcessor only.....£27.00

TOTAL GOODS VALUE

P&P (1 item = £2.00
2 or more items = £3.00)

TOTAL ORDER VALUE

2. DELIVERY DETAILS

Delivery Address

Postcode

3. CUSTOMER DETAILS

Name

(This should be the name written on the Cheque or Credit Card if payment by this method.)

Telephone No: ()

4. PAYMENT DETAILS (✓)

Credit Card

☐
☐
☐
☐
☐
☐
☐

Card

Number

Switch Issue No

Expiry Date

Signature

Cheque (4) ☐ Postal Order (4) ☐

Cheques Payable to Compo Software

Cheques Payable to Compo Software

Please send to: Amiga Computing Special Offers,
Compo Software Ltd, Unit 3, Green Farm,
Abbots Ripton, Huntingdon, Cambs PE17 2FF



elcome again to the Easy AMOS crash course in Amos programming. This month we'll be looking at how you create programs and what commands you use. It would be a good idea if you had a copy of the Easy AMOS manual to hand, but it's not essential.

Before you start programming in any language you have to figure out what it is you want to program. The way your program is laid out on the screen – what goes where – is called the 'structure' of your program. By far the hardest thing about trying to explain the best way to lay out a program is that there is no best way.

You can write the program in one big lump, which is what I would call the linear approach. The other major way of doing it is by using sub-programs and Procedures (what we call Procs), where you have a main program which drives all the Procs, which are like little program modules that can be added to and subtracted from the program without forming the structure.

Although I prefer the linear approach, where you structure the program as a series of subroutines all from within the main program, I think you should learn how to use Procs, simply from the point of view of being able to read an Easy AMOS listing.

Using Procs is easy. Imagine a Proc as a command you've added to Easy AMOS so that it does something. It's like a defined function, or like a program within the main program which does one job. This means that the Proc should almost always be a standalone program in its own right.

The bonus for writing programs which are Procs is that if every function in a program is a Proc, you can write each segment of the program separately and test them one at a time. Finally, you can combine everything, all the Procs, into one big program.

Before you can use a Proc you have to define it, and this can be done anywhere in the program, using the:

```
Procedure <name>
```

command. This can be placed at the beginning or the end of the program code – Easy AMOS can find a Proc definition anywhere in a program, as long as it's there. If it's not there,

Go back and do it again

Programs would be no fun unless they were capable of doing the same things over and over again. So, Easy AMOS has a number of looping structures which enable you to do repetitive tasks either over and over, or over and over until certain conditions are met.

The most important looping structures you should know about are While/Until, Repeat/Until, and Do/Loop. The first two are similar, the difference being that While/Until repeats a section of code while a condition is true – listing 1:

```
Y=0
While Y<20
  Inc Y
  Print Y
Repeat
  Print "Get to 20"
```

so, while Y is less than 20, the program runs. As long as the condition of Y is less than 20, when the number Y reaches 20 or over, then the loop is terminated and the next line of code is run, in this case "Get to 20" is printed to the screen.

That's While/Until, now Repeat/Until waits until the condition is true before it stops, like so – listing 2:

```
B=0
Repeat
  Inc B
  Print B
Until B>50
```

So, unlike the first example, until X is greater than 50 the program keeps going round and round. Some loops, are

Under comm

```
Inside Proc      X= 0  Y= 0
Outside Proc     X= 10 Y= 20
```

The variable inside and outside a proc – see listing 1

Easy AMOS will tell you. Generally, coders tend to put all the Procs at the end of their programs to keep them all in the same place. After the Proc is defined it can be called, and you do this either with:

```
Proc <name>
```

or just the name of the Proc. Take this very short demo program:

```
Proc EAST
  Procedure EAST
  Print "Easy AMOS is really Cool!"
End Proc
```

conditional, as they stop after a test. The remaining type is unconditional, which means it doesn't test any variables before it loops, it just does it forever.

So Do/Loop is used if you want a part of the program to go around for ever. If you want to leave a Do/Loop, apart from using Break (Control-C) to break out of the program, you can insert an Exit command into the code to give you a let out, like this – listing 3:

```
X=0
Do
  Inc X
  Print "The number X is now equal to "X
  If Mouse Key=1 Then Exit
Loop
```

This bops out of the loop if you hold down a mouse button. Do/Loop is a bit crude as loops go, but it has its uses. Incidentally, if you use another loop called an Exit If loop the Exit command can be made to test the circumstances of a variable itself. To test a variable using End If you go – listing 7:

```
X=0
Do
  Inc X
  Print "X=";X
  Exit If X>10
Loop
```

When the loop goes above 10, the loop bops out and you can continue in some other way.

That wasn't too hard was it? The Proc in this simple example is a statement to print the Easy AMOS is really Cool! string in the Print command. Every time you use the Proc's title in the program, in this case EAST, you get the same output as if you'd typed the Print line inside the Proc. The routine inside the Proc definition can be more than just a single command, and it usually is.

The most convenient way of laying out a program is to have a Proc for each bit of it and then call it from a main loop. For example:

```
See ** Game Program **
MAIN:
  _CHECK
  _MOVE
  _JMSST
  Solo MAIN
See ** and now the Proc **
Procedure _CHECK
Procedure _MOVE
Procedure _JMSST
```

This is the basic structure of a game program. As long as the Proc definitions are in the program somewhere, they will work.

These are like DATA statements, which can be read anywhere in the program by the READ command. (See your Easy AMOS manual for more on this.)

By the way, the Procs in the above example have been 'folded'. For clarity in your listings you can fold Procs up into one single line to make your listings more readable. This is done using the Fold/Unfold command in the Easy AMOS command menu.

When you activate this command it toggles the folding on and off for the selected Proc. Press it once and it folds the Proc, press again and it unfolds it. When you've folded the Proc, there is only a single line left.

So Easy Tip number 1: Each time you start to write a program in Easy AMOS, create a different Proc for each stage of the program, and then just weld them all together with a main program.

The best way to crack any programming job is make sure it is broken down into sections, and then work on the sections. Work on routines is never wasted, so if you have a favourite routine you can always re-use that in your next program.

The one sticking point with Easy AMOS is that by using Procs you are going to have problems with variables. Procs are a little world unto themselves, and variables in a Proc

```
Inside      X= 10 Y= 20
outside    X= 10 Y= 20
```

Making variables Global – see listing 2

and with AMOS

```
inside    x= 10 y= 20
outside   x= 10  y= 20
```

Accessing Global variables inside and outside a proc – see listing 3

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
84

■ This is an example of the While/Until looping structure - see listing 4

20
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50

**An example of the Repeat/Until loop-
ing structure - see listing 5**

[illegible]

■ This relates to listing 6 and shows the use of the Do/Loop

are never shared with the rest of the program unless you specify this to be the case.

So Easy Tip number 2: Remember to declare variables you want to share with the rest of the program or they will be assumed to be 'local.' Use the Shared command in the variable definition inside the Proc, or use the Global command in the main body of the program. Clear? Okay, let's break it down a little.

A local variable type is the default for variables in Easy AMOS, in other words a variable inside a Proc is separate from the rest of the program. Type in this example – listing 1:

```

x=10 : y=20
TESTER
Print "Outside Proc      x=";x,"y=";y
Procedure TESTER
Print "Inside Proc      x=";x,"y=";y
End Proc

```

The figures would be the same, but variables used

This relates to listing 7 and shows how the loop has hopped out after 10

inside the Procs are different from ones used outside the Proc, in that you can't carry any variables into a Proc unless you make them global

This can be tricky. For example, if you define arrays using the DIM command you have to add them a little if you're going to use them in a Proc, by either making the variables global or sharing them from within the Proc. If you want to make variables global you must use the Global command to declare the list at the front of your program – listing 2:

```
x=10 ; y=20
Global x,y
TESTER
Print "outside      x";x,"y";y
Procedure TESTER
Print "inside      x";x,"y";y
End Proc
```

As Global variables can be accessed from anywhere in a program, you can use them inside Procs. If you want to have access to variables which are inside a Proc, you must define them as "Shared" – listing 3:

```

X=10 : Y=20
TESTER
Print "outside    x=";X,"y=";Y
Procedure TESTER
Shared X,Y
Print "inside    x=";X,"y=";Y
End Proc

```

Another way to send variables and user input to a

Proc is through the use of what is known as Parameter Definitions. This is where you pass a specific list of variables, complete with their contents, to a Proc as you define it, like this:

```
Procedure STOPPING(CB,V,P)
```

The variables are loaded directly from the main part of the program, and the Proc can be called in two ways. Either you pass another variable to the Proc which has a value you wish to pass to the new variables in the Proc, such as this:

```
IS="Don't call me stupid" : Y=3 : P=4
STOPPIQ[IS,Y,P]
```

or you can add the values when you call the Proc:

```
_STOPPID[Don't call me stupid, just  
call...".45.9]
```

An elegant way to pass values from a main chunk of code directly to a Proc, which can also be used when someone is typing data into a program, is to go directly to the Proc in question.

Time's up

Next month we'll be printing a listing for you to type in Easy AMOS which will show you how a whole program goes together. See it before it sees you.

AMOS

Phil South
continues his
short series
on how to get
the best from
your free copy
of Easy AMOS

Write stuff

If you have an AMOS question, or a routine you'd like to share with the world, then please write to Phil South.

Amos Column, Amiga
Computing, Media
House, Adlington
Park, Macclesfield
SK10 4NP

Easy PC

PO Box 36, Frodsham, Warrington WA6 6DJ

Telephone: 0928 732 550

WHAT YOU GET FROM EASY PD
 Ⓢ Top quality disk disks (not for Easi computers)
 Ⓢ A simple help sheet (valued for beginners)
 Ⓢ Good labels featuring the name of the disk!
 Ⓢ Simple loading instructions on every disk
 Ⓢ Fast, friendly service - always (nearly)
 Ⓢ The Best Catalogue guide to the world

DISKS FROM JUST

80p

GAMES

18th Hole
 CAT 725 - 1 DISK - NOT 1200. This is a very good looking excellent golf game. Good value, please buy.

3D Games Series
 CAT 810 - 1 DISK. Includes a brilliant 3D adventure game, which is absolutely top.

Advanced Hero Onset
 CAT 1050 - 1 DISK. Let the computer be the game master, and provide the challenges. You must be the best game in town.

Black Dawn
 CAT 220 - 1 DISK. This is a totally excellent 1945 adventure game. Best adventure has should be without.

Black Dawn 2
 CAT 730 - 1 DISK. The amazing Successors follow up to the above great adventure.

Duke's Dilemma
 CAT 1040 - 1 DISK. A true classic for its sheer fun on games play, and technically professional with a lot. The line some arcade machine game.

Ditchin In Space
 CAT 1110 - 1 DISK. Test two player adventure game platform game that is well worth the money for a game.

Golden Uddies
 CAT 1250 - 1 DISK. A wonderful collection of arcade classics from the early days. A good machine top.

GAMES

Grand Prix B3
 CAT 1000 - 1 DISK. A straightforward and highly involved racing game.

Gush
 CAT 1030 - 1 DISK. This is probably the best version of Spinalm you can get. Very playable and very addictive.

High Octane
 CAT 600 - 1 DISK. This is a cutting machine car race for two players. It's full of the best with bells and whistles, and plenty of weapon pick ups.

Kluge's the Cat
 CAT 1700 - 1 DISK. This is a lovely cat platform game, with classic graphics.

Nights
 CAT 1030 - 1 DISK. A very very good platform game. Most great game!

Mad Fighters
 CAT 1010 - 1 DISK - 1200 ONLY. A top notch arcade fighting game. CAT 1010 - 1 DISK - 1200 ONLY. A top notch arcade fighting game.

Overlander
 CAT 1100 - 1 DISK. An up dated version of the classic. Most great game!

Pay Out
 CAT 1000 - 1 DISK. Test your knowledge of pay tables with the pay-out game.

Red Dwarf Out
 CAT 1250 - 1 DISK. Test your knowledge of the TV series with the Dwarf! Test too. It's very much into it.

GAMES

Road to Hell
 CAT 720 - 1 DISK. For some overhead racing in another great game. This one you can make your car as well.

Rakete
 CAT 1080 - 1 DISK - 1200 ONLY. This is a fantastic new alien planet shooter. Games that really use your 1200's abilities well. It's commercial quality stuff.

Saint and Rudolf
 CAT 1010 - 1 DISK. Christmas past would be the same without a lovely cat.

Starbase 13
 CAT 1110 - 2 DISKS. This is an epic space adventure with lots to solve. It's very playable, and quite funny.

Task Force
 CAT 1030 - 1 DISK. Just happens to be a thoroughly good Space Command type strategy combat game. It's new!

Tetren
 CAT 1040 - 1 DISK. Tetris is a very good Tetris clone. It features a good selection of new additions, and two player options.

Total War
 CAT 1040 - 1 DISK. A brilliant version of the classic. It's a game for players, computer or human computer, and battle.

Wackin' in Wonderland
 CAT 270 - 1 DISK. A delightful one player game which should really please any kid, even a low level kid.

ASSASSINS

Assassins 180
 CAT 770 - 1 DISK. Includes the excellent Twenty Five 1 game which is a must for Tetris fans.

Assassins 192
 CAT 1010 - 1 DISK. Includes the fantastic Pigeon game, and the better than home version.

Assassins 196
 CAT 1010 - 1 DISK. Includes a real 3D driving game that literally comes out of the screen. 3D space is required.

Assassins 198
 CAT 1010 - 1 DISK. Includes one of the best football assassins games currently available on the PD scene.

Assassins 199
 CAT 1010 - 1 DISK. Includes the exciting Pigeon game, and the arcade perfect version of Tetris.

Assassins 201
 CAT 1010 - 1 DISK. Includes the excellent 3D shooter Hothouse which is fast, funny and very playable.

Assassins 205
 CAT 1010 - 1 DISK. Includes the all time classic Asteroids. It's simple, but by cruddy it's fun.

Assassins 206
 CAT 1010 - 1 DISK. Includes a good version of the classic. It's simple, but by cruddy it's fun.

MUSIC/DEMO

Fairlight 242
 CAT 770 - 1 DISK. Contains a very long music sequence set to the usual Tetris tune.

9 Fingers
 CAT 1010 - 1 DISK. An audio well brought to you from Singapore. It's pop music with a twist.

Aluminium
 CAT 1010 - 1 DISK. A nice new demo with a nice little ray traced animation.

Armedaggon
 CAT 1010 - 1 DISK. A lot of music with a good original bit.

Arts
 CAT 1010 - 1 DISK. A graphical arrangement of a demo with lovely music.

Attraction
 CAT 1040 - 1 DISK. A great music disk with some lovely music.

Beats Continues
 CAT 1010 - 1 DISK. This excellent music disk has on here for your listening pleasure.

Boop Re-Mix
 CAT 1010 - 1 DISK. A good re-mix of that chart topping tune.

Gastric Ulcer
 CAT 1010 - 1 DISK. A good collection of some very nice music. But for the latest heartbeats.

Star Trek Rave
 CAT 1010 - 1 DISK. A good collection of some very nice music. But for the latest heartbeats.

Techne Tracks 2
 CAT 1010 - 1 DISK. A good collection of some very nice music. But for the latest heartbeats.

MUSIC/DEMO

Gospel Karaoke
 CAT 770 - 1 DISK. A lovely album, but it is a true Karaoke Album.

Jesus On Chase
 CAT 1010 - 1 DISK. A fairly fast paced new music disk with some very catchy tunes.

Kass Theory
 CAT 1110 - 1 DISK. A nice music disk with some amazing hard tunes.

Piece of Mind
 CAT 1010 - 1 DISK. A good 10 volume music disk with some very catchy tunes.

Scopes 2 Unlimited
 CAT 1040 - 1 DISK. Good old Scopes against 3 very well produced 3 Unlimited.

Supercal
 CAT 1010 - 1 DISK. A short version of a demo.

For Your Mind
 CAT 1040 - 1 DISK. For your mind, test some, a really interesting demo for your mind.

State of the Art
 CAT 1010 - 1 DISK. A good collection of some very nice music. But for the latest heartbeats.

Star Trek Rave
 CAT 1010 - 1 DISK. A good collection of some very nice music. But for the latest heartbeats.

Techne Tracks 2
 CAT 1010 - 1 DISK. A good collection of some very nice music. But for the latest heartbeats.

ALL THE DISKS LISTED ON THIS PAGE ARE COMPATIBLE WITH ALL AMIGA COMPUTERS UNLESS OTHERWISE STATED

USEFUL

600 Business Letters
 CAT 701 - 1 DISK. Lots of letters for business.

Account Master
 CAT 1110 - 1 DISK. A small account program to help keep your books.

Amibase Pro 2
 CAT 1250 - 1 DISK. Probably the best database program you can get. Very useful indeed.

Astro 22
 CAT 1010 - 1 DISK. An excellent program to help with your astronomical calculations.

Astronomy
 CAT 1040 - 1 DISK. Produces very detailed planetary information for Amiga.

Classic Utilities
 CAT 1010 - 1 DISK. A collection of classic that you really should have.

Create Adventures
 CAT 1010 - 1 DISK. A very nice software program.

Crossword Creator
 CAT 1010 - 1 DISK. Makes the crossword.

Crunchers disk
 CAT 1010 - 1 DISK. It's a great game to get right into the disk is suitable for you.

D-Copy 3.1
 CAT 1010 - 1 DISK. The best disk copier you can get.

Dynamic Slides
 CAT 1010 - 1 DISK. An amazing night sky viewer which is better than the real.

USEFUL

Easycalc
 CAT 1040 - 1 DISK. Simply the best spreadsheet.

Edward Pro 4
 CAT 1010 - 1 DISK. A brilliant test editor which has a lot of features.

Forecast
 CAT 1010 - 1 DISK - NOT 1200. It's a very nice weather forecast program. The disk could be your friend.

Grinder
 CAT 1040 - 1 DISK. A resource access program.

Home Budget
 CAT 1010 - 1 DISK. This is a very effective little money manager/plan program.

Inscript
 CAT 1010 - 1 DISK. How nice thing is to write a note or letter.

Mandelmania
 CAT 1010 - 1 DISK - NOT 1200. A very fast fractal generator with fractal zoom in and out.

Mandelplot
 CAT 1010 - 1 DISK. A resource access program. The best fractal.

Magnum
 CAT 1010 - 1 DISK. A good disk copy action.

PC Task 2
 CAT 1010 - 1 DISK. A working demo of the very good PC emulator program.

Planetarium
 CAT 1010 - 1 DISK. A simple program to display the position of the planets.

USEFUL

Peaks Tools 2
 CAT 1010 - 1 DISK. A great risk taking game. It's a game for players, computer or human computer, and battle.

PP Mini Crunch
 CAT 1010 - 1 DISK. A very nice game. It's a game for players, computer or human computer, and battle.

S-I-R-B-S
 CAT 1010 - 1 DISK. Create your very own newspaper pictures and battle your friends.

Start of the Art
 CAT 1010 - 1 DISK. These disks are packed chock with various graphics programs.

Text Engine 4
 CAT 1010 - 1 DISK. The best word processor there is. Very well suited to the Amiga.

The Money Program
 CAT 1010 - 1 DISK. A very nice money manager program. Very useful.

Utility Disk Maker
 CAT 1010 - 1 DISK. Makes your help files. It's a game for players, computer or human computer, and battle.

Words
 CAT 1010 - 1 DISK. A handy program to help with your word processing and writing.

X Heat Pro
 CAT 1010 - 1 DISK. A very handy music sequencer program. Very good for the Amiga.

ANIMATION

Animation Studio
 CAT 1010 - 1 DISK. A fantastic program to help you create animation. Features the same slide layering technique.

Beat
 CAT 1010 - 1 DISK. A very nice animation of a typical English garden scene, with a lot.

Ben's Last Stand
 CAT 1010 - 1 DISK. A good game to play. It's a game for players, computer or human computer, and battle.

Beach
 CAT 1010 - 1 DISK. A great single screen picture of a beach scene.

Human Cannonball
 CAT 1010 - 1 DISK. A very nice animation of a human cannonball.

Linux
 CAT 1010 - 1 DISK. A very original animation of a very nice garden scene.

Raging Hormone
 CAT 1010 - 1 DISK. A very nice animation of a very nice garden scene.

Raging Hormone 2
 CAT 1010 - 1 DISK. A very nice animation of a very nice garden scene.

Raging Hormone 3
 CAT 1010 - 1 DISK. A very nice animation of a very nice garden scene.

Savings
 CAT 1010 - 1 DISK. The perfect animation about a good old Penny.

MISCELLANY

AMOS Libraries
 CAT 1010 - 1 DISK. Some essential AMOS contained libraries for Amiga/Amos Pro.

Communicate
 CAT 1010 - 1 DISK. A collection of classic old Spectrum games for use with the Amiga emulator program.

Octanet World
 CAT 1010 - 1 DISK. An excellent game to play. It's a game for players, computer or human computer, and battle.

Spectrum Emulator
 CAT 1010 - 1 DISK. A very nice game to play. It's a game for players, computer or human computer, and battle.

Space Classics
 CAT 1010 - 1 DISK. A collection of classic old Spectrum games for use with the Amiga emulator program.

Space Classics 2
 CAT 1010 - 1 DISK. A collection of classic old Spectrum games for use with the Amiga emulator program.

Space Classics 3
 CAT 1010 - 1 DISK. A collection of classic old Spectrum games for use with the Amiga emulator program.

The Dark Room
 CAT 1010 - 1 DISK. This is a very nice animation of a very nice garden scene.

Titanic Cheats
 CAT 1010 - 1 DISK. A very nice animation of a very nice garden scene.

WIC 20 Emulator
 CAT 1010 - 1 DISK. A very nice game to play. It's a game for players, computer or human computer, and battle.

FEATURES OF OUR CATALOGUE

- Ⓢ It's a fully featured database, not just a text file, and it's easy to use.
- Ⓢ It's very simple to use and contains no hard copy for the text.
- Ⓢ Fully remote operated with all commands on screen at all times.
- Ⓢ Includes information for each disk on compatibility and all times.
- Ⓢ Powerful filters so you can view the whole lot or filter the database to suit.
- Ⓢ Tens of thousands of titles to choose from, with the ability to sort, by loading.
- Ⓢ Very fast and powerful search features to find any disk you want.
- Ⓢ Easy entering entries where the program will do it for you. Try it.
- Ⓢ A selection of helpful hints to make any time you like. They're in the list.
- Ⓢ Last but not least, the whole thing is absolutely FREE with your first order!

HOW TO ORDER YOUR DISKS

- Ⓢ Tick the titles you want, or write them into a short list paper.
- Ⓢ Carefully count how many DISKS this adds up to (just tick).
- Ⓢ Carefully count how many DISKS this adds up to (just tick).
- Ⓢ Add 75 pence for each disk to cover the cost of postage and packing.
- Ⓢ Write your name and address CLEARLY in the space opposite.
- Ⓢ Send your order along with a cheque/postal order for the total amount to the address on the back of this page. Please do not send money.
- Ⓢ 1 to 9 disks cost £1.00 each
- Ⓢ 10 to 19 disks cost £1.50 each
- Ⓢ 20 or more cost just 80p each

EASY PD ORDER FORM

Name _____
 Address _____
 Postcode _____ Tel _____
 Credit Card No. _____
 Expiry date _____ Signature _____

efore we get into the nitty gritty of it all, let's get the formal stuff out of the way. A compound variable name contains at least one period and at least two other characters. The name cannot start with a digit or a period and, if there is only one period, it may not be the terminal character. So 'x.1' and 'computer.amiga' are valid compound symbols but '20.x' and 'computer.amiga.' are not!

The first part of the name, i.e. the portion up to and including the first period, is known as the 'stem', so the stems associated with the two valid symbols just mentioned are 'x.' and 'computer.'. The remainder of the name is called the 'tail'.

When AReXX encounters a compound variable name it generates a 'derived name' by replacing any references to simple symbols in the tail by the values of those symbols. To see how AReXX behaves when it encounters compound variables and their stems, take a look at listing 1 because when this program runs the output looks like this:

```
1000 test.rexx
COMPUTER.
COMPUTER.
nothing in stock
Your Amigas in stock
```

The first SAY instruction is printing an initialised stem and this turns out to be the upper case name of the stem (including the period). The second SAY references a simple variable called computer and this, because it was not explicitly initialised, has been set to the uppercase equivalent of the variable name itself.

The third SAY instruction prints the contents of a compound variable called 'computer.pc' and because this has not been set to any explicit value, AReXX has initialised it by setting it to the name of the associated stem (since this was subsequently set to the string 'nothing in stock' it is this string which is printed).

The last variable to be printed, the compound variable called computer.amiga, has been initialised, so in this case SAY uses its value, i.e. it prints the string 'Your Amigas in stock'.

This program tells us a number of important things: Firstly, the stem part of a compound variable can be referenced and initialised in isolation (i.e. without specifying a tail value). Stem assignment statements must, however, include the period in the name because without this, AReXX would think it is dealing with a simple variable.

Secondly, if an uninitialised stem is used, AReXX initialises it in the same way that it initialises simple variables, i.e. it sets its value to the name of the stem variable itself (although in this case the name includes the period associated with the stem).

Lastly, it is not an error to use an uninitialised

```
/* Listing1.rexx */
say computer.
computer. = 'nothing in stock'
say computer. = 'Your Amigas in stock'
say computer.pc
say computer.amiga
```

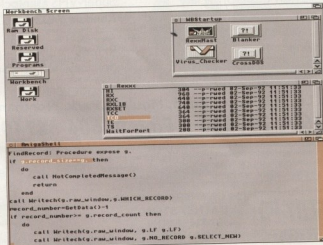
Listing 1: Experiments like this will tell you a lot about the way AReXX interprets your compound variables!

Hip hip array!

AREXX



Compound variables provide the underlying AReXX mechanism for creating arrays and other data structures. Paul Overaa explains how they are used



AReXX compound variables offer very real advantages over other languages

element of a compound variable but when such items are used they take a default value which is the same as the stem.

Let's see what all this means in terms of bottom-line coding explanations. Simple one-dimensional arrays are easily set up by defining a compound variable with a tail that consists of a single variable name. For example, a list of values might be collected from a user and effectively stored in an array x.1 using this sort of code segment:

```
x = 0
say 'how many elements?'; pull N
do i=0 to N-1
    say 'enter element'; pull x.i
end
```

Multi-dimensional arrays can be handled just as easily. For example, a two-dimensional NxN identity matrix can be set up with this loop:

```
x = 0
do i=0 to N-1
    do j=0 to N-1
        x,i,j = 1
    end
end
```

These types of array applications are easily

handled with most languages, but AReXX has advantages in that array subscripts do not need to be numeric, large arrays do not have to be predeclared before use, and AReXX only allocates memory space for the array elements that are used.

This means that if, for example, you wish to create an array of a million items, initialise the first and last elements to the value 1, set all other values to zero and then print the first, second and millionth items, for example:

```
x=0; x.1; x.1000000=1
say 'first element = ' x.1
say 'second element = ' x.2
say 'millionth element = ' x.1000000
```

and AReXX would not complain in the slightest. If you have previous experience of other languages you'll realise that to create large, sparsely populated, arrays in this manner is a big plus for AReXX. This however is just the start of the story.

Next month I'll be showing you a use for compound variables that's as near to magic as you'll get from a programming language!

You all probably read last month about Mercury dropping staff and closing down its phone box operation, as I did, and hung your head in your hands. It's a fact that if this country is going to compete with other European countries, indeed the world, in comms, it has to have the infrastructure to do it.

If the so-called Information Superhighway is going to come about, then this country needs service providers who provide a fast, digital service at the right price (read FREE LOCAL CALLS) and now, not next week or next year. Obviously, the fact that BT is required to drop its prices to keep pace with inflation minus seven per cent means that any competing telecomms provider is really up against it, as Mercury is obviously finding out.

Now this really sucks, because Mercury offers a very good deal for the comms user. The service is digital and has cheaper rates for long distance and international calls, and as a service it falls over itself to help you out. But it can't compete when BT has 80 per cent and it only has nine per cent of the market. This is not what the government is so fond of calling a 'level playing field', in fact it is sloped so sharply in BT's direction that you could - snowboard down it really fast.

The problem is that the people in government want everyone to use comms, but they want them to pay for it through their nose and every other bodily orifice because, as was said by a critic recently on the radio, this government 'only wants to line its pockets.'

What's the point of providing a good cheap and fast telephony system when you can keep it slow and charge more money for it? What's the incentive for them to do better?

It was hoped by myself and many other serious comms users that Mercury's very existence would provide a message for the government, and

The last highway

we could all vote with our feet towards Mercury, proving that the existing telephony monopoly was bad news and we all wanted something better.

SHARES

But this was not to be, and even if Mercury continues to grow, there was a table in the paper the other day which said that even by the year 2010, Mercury's slice of the pie chart would still be under 10 per cent, and all the new service providers creeping along from outside - from the US and Europe - like AT&T, will only have a slice equivalent to 1 per cent.

So the basic point is this. Competition in telecomms is going horribly wrong. It was supposed to kick-start BT into doing something about its service, and it has, but when the competition dies away, as it may well do, we will be left with an outdated system run



by people with no sympathy for the users, and we'll have to pay dearly for any services we do use.

BT will limp into the comms revolution, providing poor text-based Internet connections for huge amounts of cash, wad up the profits and give them to the people running the company.

So when Japan and the US and Europe all have first-class digital networks like ISDN, working at anywhere between 64k and 2Mbit, what will we have? I have this nightmare about acoustic modems and bakelite phones which keeps coming back to me every night. I log on and I hear a lady's voice down the end of the line saying: 'I'm sorry, BT Internet connection is busy at the moment, will you hold please, dear?' and the sound of a huge jack plug being pushed into a hole on a 1950's peg-based switchboard.

It couldn't happen, but figuratively speaking that will be where we are in a few years' time compared to our European competitors. More forward thinking governments will be embracing the world wide comms revolution and providing cheap connections to the Internet. All we'll get is a stop-gap measure and a huge bill. If this bothers you why not e-mail a few party leaders and ask them what the they are going to do about this?

John Major, with his finger on the pulse as usual, has no e-mail address. I suppose you could send him a postcard at 10 Downing Street, asking him if he intends to do anything about this, or does he want us to be bad at this as well. (The Conservative Central Office didn't even know what I was talking about when I called.)

Paddy Ashdown's address is <padayashdown@ck.computlink.co.uk>, and he usually answers in two-three days. Hip dude that he is. Tony Blair is <tonyblair@moz.computlink.org.uk>, although as I have not had a reply from him I don't even know if he reads it. Either way, at least he has an e-mail address, which is something.

COMMS



Phil South looks at your choice of telecomms providers and finds them wanting



Trailing behind

If something is not done about this, and soon, we will have a great deal of difficulty in catching up with the rest of the world. We will again fail miserably to meet with world-wide standards of communication. And not only that, we will miss out on all the fun.

It's down to politicians to get off their butts and do something. And not just because they hope to get a job as the chairman of a telecomms company, either. We don't need more sleaze. We need more bandwidth.

If you've been sitting around watching all the blather that goes on in the House Of Lords and wondering why on earth you might want to get your own title, then I seriously (and respectfully) suggest that you stop reading right now, go out into the street and jump up and down shouting "I'm completely bonkers." Why? Because the titles I'm referring to are video titles, as you should have well known.

Video titles are those things which, obviously, are stuck at the front of videos to provide vital information like what the video is called, who is in it, and so on. Video titling also covers such things as credit sequences, subtitles, captions and ident graphics.

However, not all videomakers need all these kinds of video titling effects. For some, just a simple graphic showing the name of the video and who's in it will suffice. For others, only the whole shooting match is acceptable.

So this month we'll take a quick spin through features which may (or may not) be useful in a video titler, what they might be used for and what software might best provide them.

Firstly though, let me just point out a couple of important things. To overlay titles onto video images requires the use of a genlock, and these cost from around £50 to well over £1000.

In order to use a genlock and record your titled images to tape again, you'll need access to at least two video decks (one for playback, another to record onto) and, if possible, some way of controlling both video machines simultaneously if you require more than a passing chance at accurate control.

Of course you can just record your titles direct to video tape, though you'll still need a modulator, encoder or genlock to convert your Amiga's RGB output to RF or other suitable video signal.

For many folks, a simple static title might be all that's required. Perhaps *Our Holiday In Sorrento, 1994* or *Baby's First Birthday* will suffice if you're a home video buff. If this is the case, you'll find that a lot can be done with a paint program like Deluxe Paint or Brilliance – even with a relatively brain-dead (i.e. not stacked with RAM) Amiga. Grab a few fonts, load up your software, get creative and Bob could soon be your uncle.

With paint programs like these it's also very easy to make up a set of frames and play them back automatically or manually so that a whole series of separate captions or graphics can be used, for instance to provide a list of actors.

With a bit of imagination, plenty of memory and perhaps a hard drive, a paint program can be pushed pretty hard to provide some interesting

How to get titled



With a genlock and a paint program this kind of static title is easily possible.

animated effects. However, such programs do have limitations and their simplicity won't appeal to everyone. Spurred on by his ever-present master, the willing slave to television wants more. More show, more glitz, more control. And lots of funky movement. Well, at least up to a point, because once we start talking frills we start talking money – and more frills usually mean more money, but not always.

FEATURES

To say that one of the most important features of a video titling program (beyond its ability to left, right and centre justify text in a variety of styles, sizes and colours, add shadows, outlines and underlining and, if possible, accept text files from a word processor) is to be able to produce speed-

adjustable, smoothly scrolling text displays, such as those used for credit sequences.

Scrolling is a swish way of getting a lot of information across with a minimum of fuss, especially if it is genlocked over video images. Programs like Alternative Image's Big Alternative Scroller 2 (aka BAS 2) and Scala's MultiMedia MM300 represent extreme ends of this market, with both doing a fine job of scrolling (vertical movement of text) and crawling (horizontal movement), but of course the more expensive Scala MM300 has lots more bells and whistles.

Scrolls, crawls and flipping through page sequences (cuts) are the staple fare of any half-decent video titler, but there are a few programs that take it all so much further. I'm thinking particularly of the Scala series, though Activa's MediaPoint could rightly be included here too.

By including such features as animation playback, IFF background loading, a wide selection of wipes and other transitions, the ability to play sound files as part of a script and a variety of control mechanisms for both playback and the control of external devices, such programs become so much more than just video titling programs.

Granted, not everyone needs such a range of capabilities but for professional-looking presentations and eye-catching graphics, these are really no substitute for such class. Although programs like Scala MM300 and MediaPoint require seriously-specced Amigas there's still little, if anything, to touch them on the PC or Mac.

End credits

So, if you want to get a title, arm yourself with a genlock, some software and a few good ideas. For basic work just a paint program could suffice. For more flair, a package which offers scrolling and crawling, and a good variety of fonts is what's required, but if you really want to hit the high notes you'll need an all-singing, all-dancing Amiga and some top-class multimedia software like MediaPoint or Scala MM. Now you know, what are you waiting for? Get out and get titled today.



With more advanced titling software, professional-style scrolling captions become available

VIDEO



There are fancy titles revealing all, and those with just the bare minimum of information. Gary Whiteley shows how to make whichever you require

For All your PD needs in Scotland

MG's PD

(AC), The Old Farmhouse, Rosefield,
Balgheigh, Perth, PH2 6AT
Tel: 0821 650488

Fast, Friendly, Efficient Service. Orders returned same day 1st class

Utilities	Games	1200 Only	Music
Super SlideShow Maker Banner Maker Std v2 (HD) M-CAD Ultimate Print Disk Print A Card Invoice Maker Ultimate Disk Creator Forms Really Understood Last Will & Testament Chandlery Understanding Animals EasyCalc Spreadsheet Printer Utilities Digital Address Book V-Morph v2.3 Easy Print Video Views Flash Dividend Winner Auto Score Game BBC Interpreter PD Disk Expander Video View (weddings)	PachMan De Luxe Crash Course 2 (platformer) Hill Zone (shoot-em-up) Mena v5.4 (RPG) Battle Cars 2 (3D driving) Baldies: Grease (horrific) Road to Hell (action) Oblivion (mystery-action) Diamond on Nadro Starbase 13 (OPC) (2dike) Megaball Scrabble (PD version) Chess Game Kangaroo Charles Karate (beat-em-up) Dragon Tiles (puzzle) Raman (PD shoot-em-up) Tennis Pro Green S (billiard) Global Thermo War Scorch'd Tanks (action) Bullrun (war game) Shepherd (Douglas type) G-Force 2 (shoot-em-up) Mouse Drive	Hot's AGA Remix (demo) The Final Chapter (demo) over 16 only (5 disks) Super Kick + Kickin' L3 Megaball AGA (demo) Virtuix v2.0 (demo) Planet Governor (demo) Mend 2000 (for AGA) Monsters Under the Bed Windows Blender (action) Mad Fighters (shoot-em-up) Shed Ties (2 disks, action) Fernet AGA Slides Andy's WEBI Utilities AG200 WinBench 3.0 WinBench 3.0 (platformer) Bunch & Runt (adventure) Zombi Apocalypse II Chronic CAPSULE Evil Insects (shoot-em-up)	Mend v1.2 Amoroso Pro Samples 20 Powerful Madz Pro Metal Models Pro Samples 2 Tachno Mania Drems & Pipes Music Music Madness Club Mix 3

Send 3 x 1st class stamps for catalogue disk listing over 6000 titles with FREE D-Copy, FREE Game and FREE U-P-date

Fish Disks 1 to 1000	Assassins 1 to 202	17 Bit Disks 1 to 3200+	All disks 90p p+p 70p per order
-------------------------	-----------------------	----------------------------	---------------------------------------

Choose 1 disk FREE with each 10 you buy

ONLINE PD

TEL: 01704 834335 BBS: 01704 834583

SPECIAL PRICE DEALS

ADORE PD (F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, F13, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23, F24, F25, F26, F27, F28, F29, F30, F31, F32, F33, F34, F35, F36, F37, F38, F39, F40, F41, F42, F43, F44, F45, F46, F47, F48, F49, F50, F51, F52, F53, F54, F55, F56, F57, F58, F59, F60, F61, F62, F63, F64, F65, F66, F67, F68, F69, F70, F71, F72, F73, F74, F75, F76, F77, F78, F79, F80, F81, F82, F83, F84, F85, F86, F87, F88, F89, F90, F91, F92, F93, F94, F95, F96, F97, F98, F99, F100, F101, F102, F103, F104, F105, F106, F107, F108, F109, F110, F111, F112, F113, F114, F115, F116, F117, F118, F119, F120, F121, F122, F123, F124, F125, F126, F127, F128, F129, F130, F131, F132, F133, F134, F135, F136, F137, F138, F139, F140, F141, F142, F143, F144, F145, F146, F147, F148, F149, F150, F151, F152, F153, F154, F155, F156, F157, F158, F159, F160, F161, F162, F163, F164, F165, F166, F167, F168, F169, F170, F171, F172, F173, F174, F175, F176, F177, F178, F179, F180, F181, F182, F183, F184, F185, F186, F187, F188, F189, F190, F191, F192, F193, F194, F195, F196, F197, F198, F199, F200, F201, F202, F203, F204, F205, F206, F207, F208, F209, F210, F211, F212, F213, F214, F215, F216, F217, F218, F219, F220, F221, F222, F223, F224, F225, F226, F227, F228, F229, F230, F231, F232, F233, F234, F235, F236, F237, F238, F239, F240, F241, F242, F243, F244, F245, F246, F247, F248, F249, F250, F251, F252, F253, F254, F255, F256, F257, F258, F259, F260, F261, F262, F263, F264, F265, F266, F267, F268, F269, F270, F271, F272, F273, F274, F275, F276, F277, F278, F279, F280, F281, F282, F283, F284, F285, F286, F287, F288, F289, F290, F291, F292, F293, F294, F295, F296, F297, F298, F299, F300, F301, F302, F303, F304, F305, F306, F307, F308, F309, F310, F311, F312, F313, F314, F315, F316, F317, F318, F319, F320, F321, F322, F323, F324, F325, F326, F327, F328, F329, F330, F331, F332, F333, F334, F335, F336, F337, F338, F339, F340, F341, F342, F343, F344, F345, F346, F347, F348, F349, F350, F351, F352, F353, F354, F355, F356, F357, F358, F359, F360, F361, F362, F363, F364, F365, F366, F367, F368, F369, F370, F371, F372, F373, F374, F375, F376, F377, F378, F379, F380, F381, F382, F383, F384, F385, F386, F387, F388, F389, F390, F391, F392, F393, F394, F395, F396, F397, F398, F399, F400, F401, F402, F403, F404, F405, F406, F407, F408, F409, F410, F411, F412, F413, F414, F415, F416, F417, F418, F419, F420, F421, F422, F423, F424, F425, F426, F427, F428, F429, F430, F431, F432, F433, F434, F435, F436, F437, F438, F439, F440, F441, F442, F443, F444, F445, F446, F447, F448, F449, F450, F451, F452, F453, F454, F455, F456, F457, F458, F459, F460, F461, F462, F463, F464, F465, F466, F467, F468, F469, F470, F471, F472, F473, F474, F475, F476, F477, F478, F479, F480, F481, F482, F483, F484, F485, F486, F487, F488, F489, F490, F491, F492, F493, F494, F495, F496, F497, F498, F499, F500, F501, F502, F503, F504, F505, F506, F507, F508, F509, F510, F511, F512, F513, F514, F515, F516, F517, F518, F519, F520, F521, F522, F523, F524, F525, F526, F527, F528, F529, F530, F531, F532, F533, F534, F535, F536, F537, F538, F539, F540, F541, F542, F543, F544, F545, F546, F547, F548, F549, F550, F551, F552, F553, F554, F555, F556, F557, F558, F559, F560, F561, F562, F563, F564, F565, F566, F567, F568, F569, F570, F571, F572, F573, F574, F575, F576, F577, F578, F579, F580, F581, F582, F583, F584, F585, F586, F587, F588, F589, F590, F591, F592, F593, F594, F595, F596, F597, F598, F599, F600, F601, F602, F603, F604, F605, F606, F607, F608, F609, F610, F611, F612, F613, F614, F615, F616, F617, F618, F619, F620, F621, F622, F623, F624, F625, F626, F627, F628, F629, F630, F631, F632, F633, F634, F635, F636, F637, F638, F639, F640, F641, F642, F643, F644, F645, F646, F647, F648, F649, F650, F651, F652, F653, F654, F655, F656, F657, F658, F659, F660, F661, F662, F663, F664, F665, F666, F667, F668, F669, F670, F671, F672, F673, F674, F675, F676, F677, F678, F679, F680, F681, F682, F683, F684, F685, F686, F687, F688, F689, F690, F691, F692, F693, F694, F695, F696, F697, F698, F699, F700, F701, F702, F703, F704, F705, F706, F707, F708, F709, F710, F711, F712, F713, F714, F715, F716, F717, F718, F719, F720, F721, F722, F723, F724, F725, F726, F727, F728, F729, F730, F731, F732, F733, F734, F735, F736, F737, F738, F739, F740, F741, F742, F743, F744, F745, F746, F747, F748, F749, F750, F751, F752, F753, F754, F755, F756, F757, F758, F759, F760, F761, F762, F763, F764, F765, F766, F767, F768, F769, F770, F771, F772, F773, F774, F775, F776, F777, F778, F779, F780, F781, F782, F783, F784, F785, F786, F787, F788, F789, F790, F791, F792, F793, F794, F795, F796, F797, F798, F799, F800, F801, F802, F803, F804, F805, F806, F807, F808, F809, F810, F811, F812, F813, F814, F815, F816, F817, F818, F819, F820, F821, F822, F823, F824, F825, F826, F827, F828, F829, F830, F831, F832, F833, F834, F835, F836, F837, F838, F839, F840, F841, F842, F843, F844, F845, F846, F847, F848, F849, F850, F851, F852, F853, F854, F855, F856, F857, F858, F859, F860, F861, F862, F863, F864, F865, F866, F867, F868, F869, F870, F871, F872, F873, F874, F875, F876, F877, F878, F879, F880, F881, F882, F883, F884, F885, F886, F887, F888, F889, F890, F891, F892, F893, F894, F895, F896, F897, F898, F899, F900, F901, F902, F903, F904, F905, F906, F907, F908, F909, F910, F911, F912, F913, F914, F915, F916, F917, F918, F919, F920, F921, F922, F923, F924, F925, F926, F927, F928, F929, F930, F931, F932, F933, F934, F935, F936, F937, F938, F939, F940, F941, F942, F943, F944, F945, F946, F947, F948, F949, F950, F951, F952, F953, F954, F955, F956, F957, F958, F959, F960, F961, F962, F963, F964, F965, F966, F967, F968, F969, F970, F971, F972, F973, F974, F975, F976, F977, F978, F979, F980, F981, F982, F983, F984, F985, F986, F987, F988, F989, F990, F991, F992, F993, F994, F995, F996, F997, F998, F999, F1000, F1001, F1002, F1003, F1004, F1005, F1006, F1007, F1008, F1009, F1010, F1011, F1012, F1013, F1014, F1015, F1016, F1017, F1018, F1019, F1020, F1021, F1022, F1023, F1024, F1025, F1026, F1027, F1028, F1029, F1030, F1031, F1032, F1033, F1034, F1035, F1036, F1037, F1038, F1039, F1040, F1041, F1042, F1043, F1044, F1045, F1046, F1047, F1048, F1049, F1050, F1051, F1052, F1053, F1054, F1055, F1056, F1057, F1058, F1059, F1060, F1061, F1062, F1063, F1064, F1065, F1066, F1067, F1068, F1069, F1070, F1071, F1072, F1073, F1074, F1075, F1076, F1077, F1078, F1079, F1080, F1081, F1082, F1083, F1084, F1085, F1086, F1087, F1088, F1089, F1090, F1091, F1092, F1093, F1094, F1095, F1096, F1097, F1098, F1099, F1100, F1101, F1102, F1103, F1104, F1105, F1106, F1107, F1108, F1109, F1110, F1111, F1112, F1113, F1114, F1115, F1116, F1117, F1118, F1119, F1120, F1121, F1122, F1123, F1124, F1125, F1126, F1127, F1128, F1129, F1130, F1131, F1132, F1133, F1134, F1135, F1136, F1137, F1138, F1139, F1140, F1141, F1142, F1143, F1144, F1145, F1146, F1147, F1148, F1149, F1150, F1151, F1152, F1153, F1154, F1155, F1156, F1157, F1158, F1159, F1160, F1161, F1162, F1163, F1164, F1165, F1166, F1167, F1168, F1169, F1170, F1171, F1172, F1173, F1174, F1175, F1176, F1177, F1178, F1179, F1180, F1181, F1182, F1183, F1184, F1185, F1186, F1187, F1188, F1189, F1190, F1191, F1192, F1193, F1194, F1195, F1196, F1197, F1198, F1199, F1200, F1201, F1202, F1203, F1204, F1205, F1206, F1207, F1208, F1209, F1210, F1211, F1212, F1213, F1214, F1215, F1216, F1217, F1218, F1219, F1220, F1221, F1222, F1223, F1224, F1225, F1226, F1227, F1228, F1229, F1230, F1231, F1232, F1233, F1234, F1235, F1236, F1237, F1238, F1239, F1240, F1241, F1242, F1243, F1244, F1245, F1246, F1247, F1248, F1249, F1250, F1251, F1252, F1253, F1254, F1255, F1256, F1257, F1258, F1259, F1260, F1261, F1262, F1263, F1264, F1265, F1266, F1267, F1268, F1269, F1270, F1271, F1272, F1273, F1274, F1275, F1276, F1277, F1278, F1279, F1280, F1281, F1282, F1283, F1284, F1285, F1286, F1287, F1288, F1289, F1290, F1291, F1292, F1293, F1294, F1295, F1296, F1297, F1298, F1299, F1300, F1301, F1302, F1303, F1304, F1305, F1306, F1307, F1308, F1309, F1310, F1311, F1312, F1313, F1314, F1315, F1316, F1317, F1318, F1319, F1320, F1321, F1322, F1323, F1324, F1325, F1326, F1327, F1328, F1329, F1330, F1331, F1332, F1333, F1334, F1335, F1336, F1337, F1338, F1339, F1340, F1341, F1342, F1343, F1344, F1345, F1346, F1347, F1348, F1349, F1350, F1351, F1352, F1353, F1354, F1355, F1356, F1357, F1358, F1359, F1360, F1361, F1362, F1363, F1364, F1365, F1366, F1367, F1368, F1369, F1370, F1371, F1372, F1373, F1374, F1375, F1376, F1377, F1378, F1379, F1380, F1381, F1382, F1383, F1384, F1385, F1386, F1387, F1388, F1389, F1390, F1391, F1392, F1393, F1394, F1395, F1396, F1397, F1398, F1399, F1400, F1401, F1402, F1403, F1404, F1405, F1406, F1407, F1408, F1409, F1410, F1411, F1412, F1413, F1414, F1415, F1416, F1417, F1418, F1419, F1420, F1421, F1422, F1423, F1424, F1425, F1426, F1427, F1428, F1429, F1430, F1431, F1432, F1433, F1434, F1435, F1436, F1437, F1438, F1439, F1440, F1441, F1442, F1443, F1444, F1445, F1446, F1447, F1448, F1449, F1450, F1451, F1452, F1453, F1454, F1455, F1456, F1457, F1458, F1459, F1460, F1461, F1462, F1463, F1464, F1465, F1466, F1467, F1468, F1469, F1470, F1471, F1472, F1473, F1474, F1475, F1476, F1477, F1478, F1479, F1480, F1481, F1482, F1483, F1484, F1485, F1486, F1487, F1488, F1489, F1490, F1491, F1492, F1493, F1494, F1495, F1496, F1497, F1498, F1499, F1500, F1501, F1502, F1503, F1504, F1505, F1506, F1507, F1508, F1509, F1510, F1511, F1512, F1513, F1514, F1515, F1516, F1517, F1518, F1519, F1520, F1521, F1522, F1523, F1524, F1525, F1526, F1527, F1528, F1529, F1530, F1531, F1532, F1533, F1534, F1535, F1536, F1537, F1538, F1539, F1540, F1541, F1542, F1543, F1544, F1545, F1546, F1547, F1548, F1549, F1550, F1551, F1552, F1553, F1554, F1555, F1556, F1557, F1558, F1559, F1560, F1561, F1562, F1563, F1564, F1565, F1566, F1567, F1568, F1569, F1570, F1571, F1572, F1573, F1574, F1575, F1576, F1577, F1578, F1579, F1580, F1581, F1582, F1583, F1584, F1585, F1586, F1587, F1588, F1589, F1590, F1591, F1592, F1593, F1594, F1595, F1596, F1597, F1598, F1599, F1600, F1601, F1602, F1603, F1604, F1605, F1606, F1607, F1608, F1609, F1610, F1611, F1612, F1613, F1614, F1615, F1616, F1617, F1618, F1619, F1620, F1621, F1622, F1623, F1624, F1625, F1626, F1627, F1628, F1629, F1630, F1631, F1632, F1633, F1634, F1635, F1636, F1637, F1638, F1639, F1640, F1641, F1642, F1643, F1644, F1645, F1646, F1647, F1648, F1649, F1650, F1651, F1652, F1653, F1654, F1655, F1656, F1657, F1658, F1659, F1660, F1661, F1662, F1663, F1664, F1665, F1666, F1667, F1668, F1669, F1670, F1671, F1672, F1673, F1674, F1675, F1676, F1677, F1678, F1679, F1680, F1681, F1682, F1683, F1684, F1685, F1686, F1687, F1688, F1689, F1690, F1691, F1692, F1693, F1694, F1695, F1696, F1697, F1698, F1699, F1700, F1701, F1702, F1703, F1704, F1705, F1706, F1707, F1708, F1709, F1710, F1711, F1712, F1713, F1714, F1715, F1716, F1717, F1718, F1719, F1720, F1721, F1722, F1723, F1724, F1725, F1726, F1727, F1728, F1729, F1730, F1731, F1732, F1733, F1734, F1735, F1736, F1737, F1738, F1739, F1740, F1741, F1742, F1743, F1744, F1745, F1746, F1747, F1748, F1749, F1750, F1751, F1752, F1753, F1754, F1755, F1756, F1757, F1758, F1759, F1760, F1761, F1762, F1763, F1764, F1765, F1766, F1767, F1768, F1769, F1770, F1771, F1772, F1773, F1774, F1775, F1776, F1777, F1778, F1779, F1780, F1781, F1782, F1783, F1784, F1785, F1786, F1787, F1788, F1789, F1790, F1791, F1792, F1793, F1794, F1795, F1796, F1797, F1798, F1799, F1800, F1801, F1802, F1803, F1804, F1805, F1806, F1807, F1808, F1809, F1810, F1811, F1812, F1813, F1814, F1815, F1816, F1817, F1818, F1819, F1820, F1821, F1822, F1823, F1824, F1825, F1826, F1827, F1828, F1829, F1830, F1831, F1832, F1833, F1834, F1835, F1836, F1837, F1838, F1839, F1840, F1841, F1842, F1843, F1844, F1845, F1846, F1847, F1848, F1849, F1850, F1851, F1852, F1853, F1854, F1855, F1856, F1857, F1858, F1859, F1860, F1861, F1862, F1863, F1864, F1865, F1866, F1867, F1868, F1869, F1870, F1871, F1872, F1873, F1874, F1875, F1876, F1877, F1878, F1879, F1880, F1881, F1882, F1883, F1884, F1885, F1886, F1887, F1888, F1889, F1890, F1891, F1892, F1893, F1894, F1895, F1896, F1897, F1898, F1899, F1900, F1901, F1902, F1903, F1904, F1905, F1906, F1907, F1908, F1909, F1910, F1911, F1912, F1913, F1914, F1915, F1916, F1917, F1918, F1919, F1920, F1921, F1922, F1923, F1924, F1925, F1926, F1927, F1928, F1929, F1930, F1931, F1932, F1933, F1934, F1935, F1936, F1937, F1938, F1939, F1940, F1941, F1942, F1943, F1944, F1945, F1946, F1947, F1948, F1949, F1950, F1951, F1952, F1953, F1954, F1955, F1956, F1957, F1958, F1959, F1960, F1961, F1962, F1963, F1964, F1965, F1966, F1967, F1968, F1969, F1970, F1971, F1972, F1973, F1974, F1975, F1976, F1977, F1978, F1979, F1980, F1981, F1982, F1983, F1984, F1985, F1986, F1987, F1988, F1989, F1990, F1991, F1992, F1993, F1994, F1995, F1996, F1997, F1998, F1999, F2000, F2001, F2002, F2003, F2004, F2005, F2006, F2007, F2008, F2009, F2010, F2011, F2012, F2013, F2014, F2015, F2016, F2017, F2018, F2019, F2020, F2021, F2022, F2023, F2024, F2025, F2026, F2027, F2028, F2029, F2030, F2031, F2032, F2033, F2034, F2035, F2036, F2037, F2038, F2039, F2040, F2041, F2042, F2043, F2044, F2045, F2046, F2047, F2048, F2049, F2050, F2051, F2052, F205

I had a letter the other day from someone who had been trying to convert 16-bit sound effects from a CD-ROM drive-based multimedia PC system on to their Amiga. They had stored their sampled PC wave data as raw samples, and copied these data files to their Amiga sample editor using CrosDOS. Needless to say with the text option turned off. Apparently, the samples, once transferred to the Amiga, just sounded like noise and were totally unrecognisable.

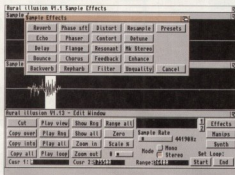
This problem occurs because on all machines, 16-bit sample data is stored as values represented by two 8-bit bytes. Unfortunately, the 80x86 processor-based PC machines store the bytes of this data in the opposite order to 680x0-based machines such as the Amiga. This means that if you use CrosDOS to read raw data like this from a PC file, the two bytes end up the wrong way round.

Since those pairs of bytes represent intensity (amplitude) information, it's not hard to appreciate that any software that reads this data the wrong way round is going screw up the digital representation of the original waveform!

The solution, of course, is to find, or write, a utility that allows the data bytes of a 16-bit sample to be swapped around as they are read into the Amiga, and around utilities that perform this specific conversion are easy enough to write. It just so happens that a new sample editing tool has appeared which already has this Amiga/PC oriented byte-reversal facilities built in.

The program, Aural Illusion, is a tool that can be used for both editing and creating sound files, and a number of file formats are supported. 8-bit 85VX files, 16-bit AIF format, Audio Visual Research's AVR format (used on the Atari ST), Amiga style 8-bit, 16-bit raw data files and byte-reversed 16-bit

Aural Illusions



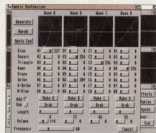
A control bank allows you to perform a whole range of useful effects

raw data can all be handled, along with Aural Illusion's own custom sample format.

On the editing side, the usual types of cut/copy, looping type operations are available along with effects like reverb, echo, delay, flange, and chorus. As well as effects, there are a lot of different waveform manipulations (adding, subtracting ANDing, ORing, Flipping and so on) which can be applied to a sample, although to be honest I've found these of limited use to date.

SYNTHESIZER

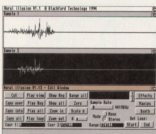
Aural Illusion also has a rudimentary synthesizer available and this allows you to create sounds by building them up from basic waveforms (sine wave, square wave and so on). The synth also lets you 'morph' the results into other waves over time (making sounds which change through time), although you can't listen to the morphing/mixing effects in real time so you have to experiment, then go back to the sample playing display to hear



Aural Illusion includes synthesized sound generation facilities

the results. This, to be honest, is a bit of a pain.

Since the Amiga's audio hardware is only 8-bit you will, needless to say, only hear your sounds played at that resolution unless you've got Clarity 16, or a 16-bit Sunrise board, available. Aural Illusion does, however, work internally in 16-bit format and actually performs many of its effects and calculations using 32-bits to minimise quality losses during waveform processing.



Aural Illusion - a new program worth watching

Is it a winner

I must admit to liking the ideas behind Aural Illusion and there's no doubt that the byte reversal facilities could prove invaluable for anyone moving raw sample data between the Amiga and PC machines.

Having said that, Aural Illusion is still a relatively young product and, in certain editing areas, the program is not as easy to use as it should be. In particular, there are some features lacking (time stretch/compress facilities for example) so it's not a program I would use for run-of-the-mill sample editing as such. It does however look to be useful for special effects, format translation and so on.

Aural Illusion requires Kickstart/Workbench 2.04 or greater and 1 Mb RAM, although more memory is recommended for serious use - particularly if you want to work with 16-bit samples.

There has been quite a lot of interest in the program of late, particularly since the price has dropped to just £20. There is also an upgrade planned for next year which will include many of the facilities that existing users have asked to be added.

Incidentally, potential users might like to know that if they purchase Aural Illusion now they'll be entitled to a free upgrade when the new version arrives.

MUSIC



Paul Overaa explains how the timely arrival of this new sample editing program has solved a particularly nasty Amiga PC 16-bit sound sample portability problem...

The bottom line

Product: Aural Illusion
Supplier: Seasoftware Computing
Price: £20
Tel: 0903-850378

Ease of use 6
Implementation 7
Value for money 8
Overall 7

Amiga Computing
FEBRUARY 1995

The simplest and quickest way to break up columns of copy is to use subheadings. Most pieces of writing have natural breaks in them, for instance, where the author moves suddenly from one subject matter to another.

These can be spotted at the editing stage and subheadings inserted if it is thought necessary. Later, when the copy has been pasted, you may need to add further subheadings or even remove one or two if there are too many on a page. We'll come on to this later, but first we should decide on a style.

It's important that all subheadings in an article carry the same weight. In other words, they should all be in the same font, showing regularity. Many publications which use a serif typeface for body copy choose a sans serif typeface for subheadings, so that they complement the body text.

The reverse isn't so true, but there is nothing wrong with using serif subheadings if that is what you want to do. What's more important is that the font you choose isn't asking too much from your output device.

CHOICES

At 300 dpi or more the world of fonts is your oyster, but if you've got a low resolution 9-pin printer, don't go for a fancy font or very round font that is going to exaggerate the jaggedness of the output, and take a long time to print. Subheadings stick out. They are a kind of advertisement for the text beneath them. If the subheadings look bad, the text beneath may be as well.

Having said that, never be afraid to experiment, but remember this. Small cook-ups are mistakes, big cook-ups are bold readings. Discovering the limit to which you can push your particular set-up is part of the learning curve - keep in mind that you won't find that limit until you go past it.

The above notwithstanding, and although subheadings provide stopping points for tired or busy readers, on the whole people read straight through them. This doesn't mean you

All in a title



The perfect positioning for your subheadings. Here they separate the second leg of the text, with enough lines above and below to maintain continuous text flow

can use any old drivel as a subheading. The words you choose will have greater emphasis if they relate to the first paragraph directly underneath the subheading or, if the first paragraph is only two or three lines, the second paragraph if you must.

A handy tip for very busy editors is to pull out a single word from the paragraph underneath the subheading. This will be a word that best describes the subject of the paragraph, so the readers will know what is coming up next. Subheadings that wrap on to more than one line generally look amateurish, so if you use more than one or two words, choose short ones



This example is in the wrong position. It is a long column of text which has already been broken up by the title, so the subheading should be in the second column

and use them sparingly. As well as keeping the style of subheadings the same throughout an article, it is a good idea to use the same font for subheadings throughout the whole publication. (Remember that a font is the combination of typeface, point size and weight.) Readers will come to recognise them for what they are and take less notice of them.

"What! You mean I've spent all this time and effort on something my readers will take no notice of? Uh-huh. You see, there may be times when you will want to stop readers in their tracks - maybe to make a point, to say that that was the end of that bit and this is the start of the next bit, or maybe just for the hell of it.

To achieve this you will choose a different font, probably a larger one, but a much smaller one will have the same effect - as long as it is a change from the general theme of subheadings it will serve its purpose. Therefore, you can see that if you use different fonts for subheadings all the time you lose the option of the surprise attack.

In the right place

We've already decided that the editing stage is a natural time to insert subheadings into copy, but this isn't the end of it. There are places on the page where subheadings look ugly or awkward, so must be changed. For instance, imagine a subheading falling right at the foot of a column, with the copy following it starting at the top of the next column. This will look a trifle silly as there will be no continuation in the text after the subheading, but it will happen sometimes.

Subheadings also look bad right at the top of columns, or too close to the top or bottom of columns. You should have at least five or six lines underneath a subheading that falls close to the foot of a column, and at least five or six lines before a subheading that falls close to the top of a column.

The quickest and easiest way to deal with the problem of a subheading falling in the wrong place is to move it somewhere else, or even remove it altogether if there is no space for it. Remember that if you move a subheading you will have to re-write it so that it is relevant to the new paragraph of copy following it.

This mucks up the natural breaks in the copy, but at the layout stage we are not concerned with this as it can all be rectified in the end - we merely want to obtain an overall appearance of the article on the page.

As stated before, most people read straight through subheadings, so the flow of the article isn't disrupted as much as you think it is. Remember, only you will know a subheading has been moved to another place or removed completely - readers will think it has always been in that position or that there never has been one in the text in the first place.



Ben Pointer takes you through the motions for choosing your subheadings and shows why style and position are so vital

Exclusive PD

Reliability, speed
and all you need.

TOP PD SOFTWARE

UTILITIES

DPhant Buddy Sys [2]
Seagull Copy
Majic Expansion V1.3
Archiver
EPU Disk Stocker V1.63
Amex Frog & Examp. [2]
Selo 127 Professional
DiskManager V4.0 [2.04+]
VMA & Wmem [2.04+]
Vys Wy/Shop V4.3 [2.04+]
Gblinker [2.04+][030]
HD Units 2000 [2]
Assign Manager [2.04+]
Security [2.04+]
Menus & Maps [2.04+]

GAMES

Kiss The Canvas AGA
Sea Devils
IndyCar Challenge
Atomic
Evil's Doom
Spillith
Industrial Espionage
Spheres Of Influence
Muscles O. Xenon AGA [2]
Bakery AGA
Dong II Demo
Sniper
Puffy Sogad Demos
Galaga Deluxe V2.4 [2.04+]
Hi Ago Remix

1200 SLEDES

Mini Shadowbox [14]
Space Fantasy Art
Babyface 5 Slides
The Far Side Slides
Bodyshop 8 [2]
Claudia Schiffer '94 [3]
Alan Raynolds [2]
Blue Runner Jugg
Alan Science [2]
Aladdin [3]
Crawford Vol 1 [2]
Scan Is Lane [2]
Red Dwarf [2]
Girls of the

F1 LICENCEWARE

Blackboard V3.0 [3]
Maze Madness
F1 Music Vol 4
Erik
Reg. Guide To AMOS [2]
Intro. WB/DSD [2.04+]
Operation Firestorm
Off You Go
Amiga2me #4 [3]
Giddy B
1 Disk F1 Title = £3.99
Add £1 for each extra
disk in the set

GIF Bouquet Pack:
18 disks of 256
colour boules
£15.00 inc P&P

Bodyshop Pack
Issues 1-7
(1/2 Disk)
£10.00 inc P&P

Fred Fish
Any 10 Fred
Disks of games
£8.00 inc P&P

Specy Pack
Emulator & 38
disks of games
£25.00 inc P&P

Exclusive PD
(AC)
7 Beresford Close
Waterlooville
Hants PO7 5UN
(01705) 624249

CDs

LightROM **£35.50**
Pro Utilities **£18.50**
Pro Fish Chip **£18.50**
Fresh Fish 7 **£20.50**
Gifs Galore **£22.50**
Assassins CD **£18.50**
Shore Drive (18+) **£20.50**
LSD Tools CD **£18.50**
AmiNet 4 **£18.50**
Hottest 4 **£18.50**
7 Bit Phase 4 **£18.50**
Sounds Terrific **£20.50**
Double CD bargain! **£10.50**
All CD prices include P&P

ACCESSORIES

Over Cover **£2.50**
Quality Mouse Mat **£2.50**
1.5" Floppy Holder **£2.50**
50 D500 Disks **£20.50**
100 D500 Disks **£39.50**
All prices include P&P

All PD Disks £1 per disk
whether in its own or ANTONE
case! UK Add 50p per ORDER
to cover P&P
Europe Add 20p per disk
World add 40p per disk

CATALOGUE DISK
Free with 1st order or 2x25p
Stamps

LOWEST PRICED TOP QUALITY RIBBONS, INKJETS, TONERS & DISKS

Printer Ribbons

BLACK	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Amstrad (100-3000)	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30
Amstrad (100-3000)	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30
Amstrad (100-3000)	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30
Amstrad (100-3000)	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30
Amstrad (100-3000)	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30
Amstrad (100-3000)	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30
Amstrad (100-3000)	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30
Amstrad (100-3000)	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30
Amstrad (100-3000)	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30
Amstrad (100-3000)	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.30

Ring for Ribbons Not Listed.

Ring us and WE WILL BEAT all other Ribbon prices

3 1/2" Disks & Disk Boxes

D5DD	D5HD	100 Cap.	Looklike	Disk Box
10 Disks	£5	£8	£10	£12
25 Disks	£11	£16	£20	£24
50 Disks	£19	£29	£36	£42
100 Disks	£32	£52	£64	£72
250 Disks	£75	£115	£144	£162
500 Disks	£145	£236	£288	£324

Modulated (MS-DOS) disks available to 2yr warranty.

All Disks Certified 100% Error Free

and INCLUDE FREE Labels.

Miscellaneous Items

Roll 1000 3 1/2" Disk Labels **£.99**

3 1/2" Disk Cleaning Kit **2.99**

Parallel Printer Cable (1.5m) **3.99**

Mouse Mat **2.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

Amiga 1200 Disk Cover **3.99**

FAST AMIGA REPAIRS

FAULTY TROUBLESOME COMPUTER??

SEND OR DELIVER TO THE EXPERTS FOR FAST RELIABLE REPAIR OF YOUR BELOVED AMIGA 500

ONLY £44.00 INC,*

* COLLECTION AVAILABLE ANYWHERE IN THE UK.

WE ALSO REPAIR TO COMPONENT LEVEL

A600, 1200, 1500,

2000, 3000 + 4000

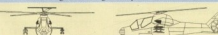
★ FREE QUOTATION ★

144 TANNER STREET, TOWER BRIDGE, LONDON SE1 2HG. TEL: 071 252 3553

ATTACK HELICOPTER FLIGHT SIMULATOR

A battle field scenario simulation of the Boeing/Starship RAH 66 COMANCHE

'Serious flight modelling that requires skill to master'



Flight dynamics modelling: Not available on other sims. Amiga B.Eing Aero.

Test your flying skills over a 5000 sq km battle area. Packed with over 300 realistically shaped hills, valleys, 1000s km of rivers and roads. Land at any of five bases. Fly under and around bridges, power stations, etc. Destroy more than 180 enemies and active enemy aircraft. Fly your own against intelligent enemy air and ground weapons and enemy helicopters. Armaments: Guided missiles (6) and Stinger (10) missiles, 20mm (100) cannons. Features: Realistic radar and FLIR imaging systems. 5 mode flight control computer. Enemy radar & laser detectors. Software: Sophisticated flight modelling and collision detection algorithms. Utilities: Flight program 3D real time rendering techniques. 16 bit video. Powerful sound effects, 16 speaker set. Stunning background object exposures. Realtime or user definable interpolation time selected.

Only £9.95 includes instruction manual, postage and packing.

Supports Amiga 500+ Amiga 1200+ Amiga 1500+ Amiga 2000+ Amiga 3000+ Amiga 4000+ Amiga 4000+ Amiga 4000+

Kickstart 1.2 or later. Requires a minimum of 1 Mbyte of ram. Joyystick optional.

To Order: Please send your name & address with a cheque or postal order for £9.95 payable to 'Absolute Image' at A.I. Dept AC2 98 Keston Rd. Coburn Bay Chyrd LD24 4B.

COMPUTER CONTROLLED ROBOTICS

With the AMIGA INPUT/OUTPUT PORT

Now you can use your Amiga to switch electric motors, respond to sensors and control robotic devices. 11 Outputs for motors etc. Up to 11 inputs for sensors. £29.95

Easy to program in AMIGA BASIC, AMOS, GFA & HSCOT.

21 page User Manual. A well constructed & ready to go piece of kit. Amiga Shopper

'No outstanding value for money product' Amiga Computer

DUAL MOTOR CONTROLLER - ONLY £19.95

Switching: Amazing automation programming disk £10.95.

£2 off if purchased with I/O port.

AMAZING SENSOR & CONTROL EXPERIMENTERS KIT

4 plug in Projects. No soldering required. Includes relay module, motor, 38 sensor, red switch, light bulb, & LEDs, powerful software on disk FREE 'Guide to Amiga Interfacing'

ROBOT BUGGY KIT £17.95 Needs motor (own motor & transformer). Easily programmed to move forward, reverse, turn, stop, change direction. Requires Port-Dual Motor Controller

£17.95-Mains adapter (ET 500-Buggy disk £4). Complete robot (own motor & transformer). Requires Port-Dual Motor Controller

Temperature & Light Experimenters KIT £11.95

Thermos & Photo sensors plug into Amiga robot & sensor software.

Mains Controller Module £22.95 (includes mains socket, Handles 16 amps. Free INFORMATION CARD ON PRODUCTS, PLEASE PHONE OR WRITE)

Please send cheque payable to: Amiga Computer or ring Switchcraft

on 0325 369773.

Includes I/O P.A.P. & Power add on 64

SWITCHCRAFT Dept AC29, 28 Ridgeway, Darlington, Co. Durham DL3 0SF.

Amiga Computing
FEBRUARY 1995

POWER COMPUTING

DESIGN and INNOVATION

POWERSCAN 4



Produces 256 greyscale images (on a AGA machine), scan in 64 greyscales (non AGA Amiga can only display 16), add colour to greyscale images, special effects, new support for 18-bit scanner, add text to scans. A1200/600 version available.

POWERSCAN 4	£119
POWERSCAN 4 OCR	£139
SCAN INTERFACE	£50
POWERSCAN 4 SIW	£20
OCR SOFTWARE	£49

EPSON SCANNER

The GT-6500 and GT-8000 24-bit colour flatbed scanners from Epson scan up to A4 in size, with output resolutions of up to 1200DPI on the GT-6500 and 1600DPI on the GT-8000 in 16.7 million colours, greyscale or line art. The scanners include either Powerscan or Image FX scanning software.

GT-6500 POWERSCAN	£599
GT-6500 IMAGE FX	£499
GT-8000 POWERSCAN	£649
GT-8000 IMAGE FX	£599
DOCUMENT FEEDER	£599

COLOURSCAN

The new 18-bit colour handscanner produces stunning colours with clarity and verve, brightening up those presentations. With over 200,000 colours and award winning PowerScan software, anything is possible!

Colour and mono software
Full colour manipulation
Up to 400DPI
256 greyscale (AGA machine)
18-bit colour (AGA machine)
OCR optional extra

COLOUR POWERSCAN	£239
-------------------------	-------------

HARD DRIVES

We can supply SCSI or IDE 3.5"/2.5" hard drives in many different sizes. Including cables and installation software.

80MB IDE 2.5"	£139.95
120MB IDE 2.5"	£159.95
170MB IDE 2.5"	£219.95
240MB IDE 3.5"	£219.95
350MB SCSI/IDE 3.5"	£254.95
510MB SCSI/IDE 3.5"	£329.95
1GB SCSI/IDE 3.5"	£499.95
2GB SCSI/IDE 3.5"	£1099.95

OPTICAL DRIVE

Power award winning 128MB optical disk drive

128MB OPTICAL INT.	£549
128MB OPTICAL EXT.	£649
128MB OPTICAL DISK	£29
SCSI CONTROLLER	£129

SYQUEST DRIVE

Removable storage systems from Syquest.

3.5" IDE INTERNAL	£399
3.5" IDE EXTERNAL	£499
3.5" 105MB CART.	£79
3.5" SCSI VERSIONS (POA)	

TANDEM CD-DE



For the Amiga 1500/2000/3000/4000
Supports Mitsuma CD-ROM drive
Supports Syquest 35" drives
Supports IDE hard drives
Play audio CD utility
Requires Kickstart 2.04 and above
Includes cable, software and manual

TANDEM CD-DE CARD	£49
CD-DE AI200 CARD	£49
CD-DE CARD, CD-ROM	£229
MITSUMA CD-ROM	£149

DISK EXPANDER

Disk Expander includes the following features:

Can add 50% to your hard drive capacity
Fast compression and decompression
Reliable in tests - no data corruption
Works with all drives, SCSI, IDE, Floppy etc.
Works on any Amiga and any Kickstart
Once installed the program is transparent to the user

DISK EXPANDER	£35
FLOPPY EXPANDER	£9.95

VIDEO BACKUP

Use a VCR as a backup device. 200 floppy disks fit on to a 4-Hr tape. Video Backup allows you to watch television on your 1084i monitor.

VIDEO BACKUP SCART	£45
VIDEO BACKUP PHONO	£60

ACEEX MODEM

NOT BY APPROVED



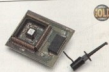
External Fax and Data modem
Receive and send faxes in the background
Full Hayes AT command set supported
Supports class 1, 2, and 3 fax commands
Fax send and receive
Auto dial and auto answer
Supports error correction and detection
Leased line support
All cables and manuals supplied

ACEEX MODEM v32bis	£149
ACEEX v32 TRAPFAX	£199

MISCELLANEOUS

MIDI INTERFACE	£19.95
VGA ADAPTOR	£15
PSU FOR HARD DRIVES	£39

MEGACHIP



Increase your Amiga 500/2000 chip RAM to a total of 2MB. Megachip does this by using its own 1MB of RAM and drawing extra memory from any other RAM you have installed in your Amiga. No soldering is required.

MEGACHIP RAM	£159
---------------------	-------------

MEMORY

We manufacture a vast range of memory cards for all the Amiga range of computers. Please telephone us for prices and availability.

WARP ENGINE

The high speed 040 board which installs directly into the CPU slot, not a Zorro III slot

WARP ENGINE 28MHz	£799
WARP ENGINE 40MHz	£1199

WORKBENCH 2.1

Release 2.1 enhancer, including 2.1 software and user guide manuals.

2.1 ENHANCER	£69
ROM SHARE INC.	£2.04
2.04 ROM CHIP	£29

PREMIER VISION

You've heard how the Amiga has made TV programmes possible such as Star Trek-TNG, Babylon 5 and Seaquest DS9. We are the ultimate multimedia service for corporate and business users and offer a wide range of services, including monthly events on multimedia, design and install complete systems, training, CD-ROM mastering and duplication. Some of our clients include: CIC Video, Granada TV, Shell, National Trust, MOD.

CALL 071 721 7050

AWARD winning PRODUCTS

44a/b Stanley St. Bedford MK41 7RW

telephone 0234 273000

facsimile 0234 352207



All prices include UK VAT. Specifications and prices are subject to change without notice. All trademarks are acknowledged. Prices are valid for north of publication only (E & OE). Delivery next day (E, 3-3 days E&OE). Saturday (E). Deliveries are subject to stock availability.

Cheques payable to Power Computing Ltd

Name

Address

Postcode

Telephone

System owned

Description

Cheque/PO for £ allow upto 7 days to clear

Credit card No.

Expiry date Sign



VIPER 68030 SERIES

VIPER FEATURES

- RAM Upgradable to 128MB*
- Full Kickstart remapping**
- Optional SCSI-II adaptor
- 68882 Maths Co-processor
- On-board battery backed clock
- Instruction & Data burst modes
- Much faster than an Amiga 4000/040***



*Only on Viper 3340 **Only on Viper 2840 ***Only on Viper 3340

VIPER 28

EC 030 at 28MHz FPU upto 50MHz

BARE BOARD	£109.95
4MB VIPER BOARD	£239.95
8MB VIPER BOARD	£399.95

VIPER 28 MMU

Full 030 with MMU at 28MHz FPU upto 50MHz

BARE BOARD	£129.95
4MB VIPER BOARD	£269.95
8MB VIPER BOARD	£429.95

new

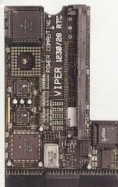
VIPER 40

Full 030 at 33MHz (clocked to 42MHz), FPU upto 50MHz

BARE BOARD	£179.95
4MB VIPER BOARD	£319.95
8MB VIPER BOARD	£479.95

CO-PROCESSORS

28MHz FPU	£25
33MHz FPU	£60
40MHz FPU	£80
50MHz FPU	£110
SCSI-II ADAPTOR	£79
4MB SIMM	£139.95
8MB SIMM	£299.95



HIGH SPEC, LOW COST



XL DRIVE 1.76MB

The new XL Drive 1.76MB now comes in a brand new metal casing which is half the height of a standard external floppy drive. The XL Drive allows you to store a massive 1.76MB on a high density disk. The A4000 internal drive fits perfectly underneath the original drive, no case cutting required.

XL DRIVE 1.76MB	£59.95
XL DRIVE INTERNAL £55.95	
XL DRIVE A4000 INT. £55.95	



SUPER XL DRIVE

The Super XL Drive is the only kind of floppy drive of its kind on the Amiga market! The innovative drive can store a massive 3.5MB on one high density floppy disk. (without compressing the file). This drive is available from late November/early December.

new	
SUPER XL DRIVE 3.5MB	£99.95
SUPER XL DRIVE INT.	£95.95



INTERNAL DRIVES

We use the same drive mechanisms as Commodore to ensure complete compatibility.

PC881 A500 INTERNAL	£36.95
PC882 A2000 INTERNAL	£36.95
PC883 A4000/1200 INT.	£35.95

ECONOMY DRIVE

The Economy drive comes with anti-click.

PC880E ECONOMY	£39.95
-----------------------	---------------



POWER DRIVES

The Power Drive is most impressive drive of its kind on the market and now includes Blitz Amiga and Floppy Expander. Floppy Expander allows you to compress files only on floppy disks by up to 50%. Other features include: Anti-click, Anti-Virus, Isolation Switch, 2 Year Guarantee, Thru/Port, Cyclone Compatible Chip, Built-in Backup Hardware and Blitz Compatible.

POWER DRIVE	£49.95
--------------------	---------------

AWARD winning PRODUCTS

44a/b Stanley St. Bedford MK41 7RW

telephone 0234 273000
facsimile 0234 352207



All prices include VAT. Specifications and prices are subject to change without notice. All trademarks are acknowledged. Prices are valid for month of publication only. £ & p. Delivery by next day £5. 0-1 day £15.00. Returns £15.00. Deliveries are subject to stock availability.

Cheques payable to Power Computing Ltd	
Name	
Address	
Postcode	
Telephone	
System owned	
Description	
Check/PO for £	allow upto 7 days to clear
Credit card No.	
Expiry date	Sign

It takes time to develop the best Frame Grabber for the Amiga....8 years to be precise!

Rombo have invested 8 years of research perfecting a range of frame grabbers for the Commodore Amiga, a range without equal in performance or specification and all at affordable prices, the ROMBO VIDI AMIGA range of Frame Grabbers and Digitisers. Compare these functions and facilities with any fr grabber on the market and you'll see why we are confident that there is no equal in specification or price to the VIDI AMIGA.

VIDI AMIGA 12RT (24 bit Real Time Colour Digitiser)

- 24 bit images saved in JPEG, BMP, TIFF, ANIM and all ILBM formats
- Hardware colour processing
- Two composite and one S-VHS video input
- Input from video camera, VCR or laser disc player
- Detects PAL, NTSC and SECAM video sources automatically
- Arexex support
- Phase Lock Loop Stabilization
- Three year hardware guarantee
- High speed bi-directional port transfers 8 bit data, up to 200 kb/sec
- 24 bit graphics card support, (Harlequin, Retina)
- HAM 8 colour preview
- Full overscan 360 x 576 capture resolution
- Image processing package built in
- TV Tuner, Teletext decoder, NICAM Decoder, Digital Genlock support follows soon.

ROMBO Frame Grabbers for the Amiga start as low £69.00 and remember all come with full technical support from ROMBO, the only company dedicated to UK design, manufacture and assembly.

To grab your VIDI AMIGA or to simply find out more, contact your local ROMBO PREMIER DEALER or contact ROMBO direct.

ROMBO PREMIER DEALERS

Abbeon
HOLBURN SOFTWARE
Abbeon (0224) 492315

Baldon
MARLBOROUGH DATA SYSTEMS
Baldon (0672) 511198

Beckham
MEGABYTE COMPUTERS
Beckham (081) 676 8488

Chelmsford
EDM COMPUTERS
Chelmsford (0246) 246073

Cleveland
TOPSOFT
Cleveland (0642) 670903

Coventry
COVENTRY COMPUTER CENTRE
Coventry (0203) 223081

Dunfermline
WAD COMPUTER WORLD
Dunfermline (0342) 322052

Edinburgh
SILICON CENTRE
Edinburgh (010) 332 5147

Glasgow
COMCAL
Glasgow (041) 332 5147

Guildford
A&B COMPUTERS
Guildford (0482) 394114

Hull
TOMORROW'S WORLD
Hull (0482) 22854

Inverness
INVERNESS COMPUTERS
Inverness (0463) 226205

Kettering
ALDITRON COMPUTING
Kettering (01536) 414882

Lancaster
CASTLE COMPUTERS
Lancaster (0524) 61113

Leds
TEC NOL
Leds (0532) 590020

Lough in Lanes
OMEGA PROJECTS
Lough (0424) 682203

London
COMPLINGUA
(081) 767 8833

London
MEGABYTE COMPUTERS
Walthamstow (081) 776 2766

Morpeth
MICROTECH
Morpeth (0670) 515137

Norwich
ONE STEP BEYOND
Norwich (0603) 782914

Norwich
WEST MERLAND COMPUTERS
Norwich (0203) 310088

Penzance
HOME ENTERTAINMENT
Penzance (0770) 50770

Preston
LAURENCE COMPUTERS
Preston (0772) 203166



ROMBO Productions Limited
2b Young Square,
Brucefield Industrial Park,
Livingston, Scotland EH54 9BX
Tel (0506) 414631 Fax (0506) 414634

It takes time to develop the best Frame Grabber for the Amiga... ...8 years to be precise!

Rombo have invested 8 years of research perfecting a range of frame grabbers for the Commodore Amiga, a range without equal in performance or specification and all at affordable prices, the ROMBO VIDI AMIGA range of Frame Grabbers and Digitisers.

Compare these functions and facilities with any fr grabber on the market and you'll see why we are confident that there is no equal in specification or price to the VIDI AMIGA.

VIDI AMIGA 12RT (24 bit Real Time Colour Digitiser)

- 24 bit images saved in JPEG, BMP, TIFF, ANIM and all ILLM formats
- Hardware colour processing
- Two composite and one S-VHS video input
- Input from video camera, VCR or laser disc player
- Detects PAL, NTSC and SECAM video sources automatically
- Arex support
- Phase Lock Loop Stabilization
- Three year hardware guarantee
- High speed bi-directional port transfers 8 bit data, up to 200 kb/sec
- 24 bit graphics card support, (Harlequin, Retina)
- HAM 8 colour preview
- Full overscan 360 x 576 capture resolution
- Image processing package built in
- TV Tuner, Teletext decoder, NICAM Decoder, Digital Genlock support follows soon.

ROMBO Frame Grabbers for the Amiga start as low £69.00 and remember all come with full technical support from ROMBO, the only company dedicated to UK design, manufacture and assembly.

To grab your VIDI AMIGA or to simply find out more, contact your local ROMBO PREMIER DEALER or contact ROMBO direct.

ROMBO PREMIER DEALERS

Abertoun HOLBURN SOFTWARE Abertoun (0224) 392315	Kettering AUDITION COMPUTING Kettering (0536) 414892
Baden MARLBOROUGH DATA SYSTEMS Baden (0672) 311198	Lancaster CASTLE COMPUTERS Lancaster (0524) 611133
Buckham MEGABYTE COMPUTERS Buckham (081) 676 8488	Leeds TEC SOL Leeds (0532) 590620
Chesham EDR COMPUTERS Chesham (02945) 286073	Leigh in Lancs OMEGA PROJECTS Leigh (0942) 682203
Cleveland TOPSOFT Cleveland (0642) 670503	London COMPELINGUA (081) 767 8833
Covey CONVENTY COMPUTER CENTRE Covey (0203) 223081	London MEGABYTE COMPUTERS Waltham (081) 776 2766
Danesh WAD COMPUTER WORLD Danesh (082) 322052	Morpeth MICROTECH Morpeth (0670) 513337
Edinburgh SILICON CENTRE Edinburgh (031) 332 5147	Norwich ONE STEP BEYOND Norwich (0603) 782914
Glasgow CONCAL Glasgow (041) 332 5147	Nottingham WEST MIDLAND COMPUTERS Nottingham (0302) 356068
Guildford A&B COMPUTERS Guildford (0483) 394118	Penzance HOME ENTERTAINMENT Penzance (0736) 50770
Hull TOMORROW'S WORLD Hull (0482) 23854	Preston LAIBROCK COMPUTE Preston (0772) 203366
Ipswich ENTERNESS COMPUTERS Ipswich (0463) 226205	

ions Limited
ial Park,
and EH54 9BX
I Fax (0506) 414634

AMIGA COMPUTING • February 1995 Issue 83 Waitke and Gromit



All Amigas

ANIMWORKS

Complete and unrestricted program

Create your own animations, edit and manipulate frames with a host of graphic tools and functions

FEBRUARY 1995

AMIGA COMPUTING

A collection of great utility programs to help make up your Amiga easy and painless

Button Menu
Assign programs to a button for easy access and quick execution

ECSDiagnosis
A brilliant diagnostic tool to track down Amiga faults

Window
Customise your Amiga Workbench