



We'll OK then you Mums and Dads, it's that time of the year again when letters to Santa are coming your way. We get a lot of phone calls at this time of year from you guys because it really isn't that easy to decide which of the mega bundles to buy. So this month we have an easy guide to help you make that really important choice.

Amiga 600 Single Drive - The ONLY home computer for less than £200. Suitable for the child fed up with paying out £40 for software for their Megadrive (software available from £9.99) or for the first time buyer. There are hundreds of software titles available including games, education, word processing, home accounts etc. Games available include strategy / role playing, titles where imagination is more important than aggression, learn to create animations not zap aliens aimlessly. **Age Group 8-13**

A600 Hard Drive - A more serious version of the above. The hard drive saves repeatedly loading and copying floppy disks. Suitable for serious games players and applications such as database management for a student or home office environment. The Epic Pack is particularly useful for a foreign language orientated student. **Age Group 12+**

Amiga 1200 Desktop Dynamic - The perfect solution for the student. You want him or her to have a computer to produce school work using quality Desktop Publishing software, he / she wants a dynamic games playing machine. This gives both you what you are looking for. The software alone is worth over £300. You can expand this computer through the addition of hard drives, extra memory, accelerator boards whatever the option most suitable for producing any number of serious applications. Want to be a graphic artist, video producer, film director, cartoon animator, musician, mathematician, designer.... the only limitation to the machine is your imagination. **Age Group 14+**

Amiga CD32 - The choice for existing Amiga owners looking for the latest product in the range or for the dedicated Commodore owner. Knocks the Sega for six with its State - of - the - Art graphics. (Colours on screen Sega 64/CD32 = 256 or 262,000 and processing speed (Sega = 16-bit / CD32 = 32-bit) To you or to me this means that people who want games can now play double more colours on screen and the action can be even faster. Also be aware this is also a Compact disc player with four digital stereo sound so you can play your favourite CD's when the kids are at school. Connects to standard TVs and most hi-fi's.

Age Group 10+
I hope this info assists. With Commodores help I'm certain that there will be thousands of happy smiling faces on Christmas Day, but if you're still not sure give Indi a call they will be delighted to help.

P.S. Indi tell me that they are able to extend the "At Home Service" on most new Commodore products to a full 3 years for as little as £39.99 through their agreement with ICL, the Giant European Warranty Company. Might be worth checking out for that extra peace of mind.

Jakki Brambles

BUY NOW PAY 994!!!!

AMIGA CD32

FREE SOFTWARE
Lemmings, Oscar, Diggers



ONLY
£289.99
with 3 great
titles

We've said it before and no apologies for repeating it. Adding an Indi Microbites M1230XA card to your Amiga 1200 turns it into a **MEAN MACHINE!**

Performance Comparison	
AMIGA 4006/040	AMIGA 1200 with M1230XA
Performance Index	
AMIGA 4006/030	AMIGA 1200

6 MONTHS INTEREST FREE CREDIT
Buy the superb new Amiga 1200 Desktop Dynamic Pack from Indi and we will send it to you for only 10% deposit with the balance over 6 months Interest Free.
* Subject to status

INDI PRICE PROMISE
If you find an identical product advertised in this magazine at a lower price than the advertised Indi Price and available for immediate delivery then we will match that price! Our way of ensuring that Indi customers have the guarantee of the very best service and the lowest price in town.
* Applies to current products offered under identical terms and conditions and subject to availability

Christmas is a very expensive time of year so here's an offer that really helps you buy time for Christmas and spreads the cost over next year. Choose any Indi product (or many products) valued at over £200, pay 10% deposit and start paying again in 3 months time. Here's how it works, choose your products and telephone Indi on 0543 419999 and ask for Credit Sales. We will give you a few questions, explain to you what you will pay and when and then complete our credit check. Within 24 hours we will be able to clear your order and subject to status deliver your products to you.

To save time it is important that when you do you have your Bank details handy and do not satisfy the three main questions:

- 1) Are you over 18 years.
- 2) Have you lived in the UK for the past 5 years.
- 3) Are you in full time employment.

If you cannot answer yes to all of these questions perhaps the credit agreement would be in someone else's name if so then they should telephone us. Once you are accepted we will ask for a 10% deposit. If you pay by credit card we will be able to release the products straight away. If you pay by cheque, it will take a few extra days. The only other detail that you will have to make is do you wish to spread the payments over 6, 12, 18, 24, or 36 months? The choice is yours!

DON'T SEND ANY MONEY

Until you are 100% certain that any advertiser has the product that you want in stock and will deliver it to you immediately.

Far too often Jakki Brambles receives letters from customers who are finding it difficult to obtain a refund from an advertiser that has promised to supply but hasn't.

To give you the confidence to purchase Indi has joined the DMA a very important Independent Authority that demands the highest possible standards from its members. DMA members agree to abide by the British Code of Advertising Practice and to subscribe to the Advertising Standards Board of Finance (ASBOF) Look out for the DMA Symbol on your guarantee signifying to the customer a truly professional edge of the industry.



The DMA Symbol.

The exterior may be sleek but lurking inside the Amiga CD32 is a technological wonder. At it's heart is the mighty powerful 68EC020 processor from Motorola. This contains the 32-bit technology which has made the Amiga 1200 a runaway success throughout Europe. Alongside it is Commodore's unique custom AGA (Advanced Graphics Architecture) chipset - comprising three chips nicknamed Paula, Lisa and Alice. Together they make Amiga CD32 and awesome powerhouse of high speed graphics and stunning sound capabilities. In fact, the machine can display 256,000 colours on screen (compared to Sega's Mega CD which can only display 64) and has a total colour palette of 16.8 million colours.

Amiga CD32 also comes with a chunky 2 Meg of RAM (that's 4 times more than Mega CD) and a double speed drive.

SPECIFICATIONS:

- 14 MHZ 68EC020 processor
- 2 Megs 32-bit chip RAM
- 2 Joystick ports/controller ports
- S-video jack
- Composite video jack
- RF output Jack
- Stereo audio jacks
- Keyboard connector/ auxiliary connector
- Full expansion bus
- Headphone jack
- External brick power supply
- Internal MPEG FMV expansion capability
- Multiple session disc capability

*PAY 10% NOW AND NOTHING MORE FOR 3 MONTHS

*ORDERS OVER £200 SUBJECT TO STATUS

AMIGA A200



DIRECT MAIL

NEW
AMIGA
PACK



NEW DESKTOP DYNAMITE PACK

A1200 STANDARD FEATURES

- 48020 Processor • PCMCIA Slot • 2MB Chip RAM • 3.5" Internal Drive
- AA Chipset • Built in TV modulator • Alpha numeric keypad
- 12 Months at home maintenance.

FREE Wordworth AGA • Print Manager • Deluxe Paint IV AGA • Oscar AGA • Dennis The Menace AGA

£349.99 **INDI 300003**

6 MONTHS INTEREST FREE CREDIT*

Deposit **£34.99**.....

£349.99 6 Monthly payments of..... **£52.50 = £315.00**

FREE DELIVERY Total Interest

Free Price..... **£349.99**

* Subject to Status

NEW DESKTOP DYNAMITE H.D PACKS

80 Mb Hard Drive Pack **£509.99**

120 Mb Hard Drive Pack **£559.99**

170 Mb Hard Drive Pack **£589.99**

WARNING

Some advertisers are fitting 3.5" drives to Amiga 1200. The Amiga was never designed to accept 3.5" drives and fitting one totally invalidates any Commodore Warranty. Indi only offer official 2.5" IDE drives officially accepted by Wang, ICL and Commodore.

CUSTOMER CHARTER

INDI Direct Mail is original and very exciting. Before you buy mail order you must first be confident that you will receive the product you've ordered and that the supplier will be there in the future, should you need them. A mail order purchase from INDI is a safe and secure decision, and here's why.

INDI is a wholly owned subsidiary of a public company now in it's tenth year of trading and specialising in the supply of computer products.

With a turnover approaching £30 million per annum, we have the resources and the purchasing power to offer you the best deals, deliver them next day nationwide and always be around when you need us. The INDI sales team have been trained to

SALES AND SUPPORT

take your order with the utmost care and efficiency. All stock offered for sale is held in stock, centrally at our group warehouse complex and is available for next day delivery, direct to your home or business. If at any time we are out of stock your money will not be handed until the product is available (a point worth checking should you be tempted to purchase elsewhere).

General information regarding product is available from our sales team, however technical support is always on hand should you need assistance.

All prices quoted are inclusive of VAT.

INDI TELESALES

TEL 0543 419999 FAX 0543 418079

9am - 7pm Monday to Friday

9.30am - 4.30pm Saturday.

CREDIT FACILITIES

INDI are now able to offer competitive credit facilities on all orders over £200. All credit facilities are subject to status and applicants must be over the age of 18.

If you would like a quote simply call our sales line where acceptance can normally be notified within the hour. We are also able to offer Credit Insurance to cover engagements in the event of sickness or unemployment.

AMOUNT	12 MONTHS	14 MONTHS	16 MONTHS	18 MONTHS
OF CREDIT	PERCENT	PERCENT	PERCENT	PERCENT
100	£32.80	£34.80	£36.80	£38.80
200	£34.99	£36.99	£38.99	£40.99
300	£37.19	£39.19	£41.19	£43.19
400	£39.39	£41.39	£43.39	£45.39
500	£41.59	£43.59	£45.59	£47.59

APR 29.9% WRITTEN QUOTATIONS

AVAILABLE ON REQUEST

*After deposit paid

AFTER SALES AND SPECIALIST SERVICE

All products are guaranteed for 12 months. Some products carry a 12 month at home service and repair guarantee (where indicated). In the unlikely event that any product purchased from INDI arrives at your home faulty, we will collect from your home and replace the product completely free of charge.

As part of our policy of continual product development and refinement, we reserve the right to change specifications of products advertised. Please confirm current specifications at the time of ordering.

Prices are valid for month of publication only.

AMIGA 1200/030 PROFESSIONAL PACK

(Exclusive to Indi)

"Approx 1.5 times faster than an A4000/030 This is the ultimate power configuration, if your dream is to own the quickest A1200 ever then take a look at this specification:

• Amiga 1200 • 4Mb 32 - bit Fast RAM (Expandable to an Amazing 128 Mb!) • Microchips M1230 XA W/50MHz MMU (Approx 1.5 times faster than an A4000/030!) • 12 Months "At Home Warranty" • Choice of Hard Drive Capacities • Optional 50MHz 68881 FPU Maths Processor.

80 Mb Version **£864.91**

120 Mb Version **£899.99**

170 Mb Version **£929.99**

68882 50MHz FPU **£132.54**

AMIGA A4000



NEW PRICE **INDI 301011**

1942 Monitor £349.99

14 inch screen size - 0.28 mm dot matrix

It's here - The new Amiga 4000/030

The New Amiga 4000/030 features a C68030 processor running at an incredible 25MHz, and upgradable at a later date to a faster processor. The 4000/030 has a powerful 2 Mb of 32 - bit RAM expandable to 16 Mb using industry standard 32 - bit Simms module. In line with the Amiga Flagship graphics chipset, giving you a massive palette of 16.8 million colours. A range of hard drive options are available from 80 - 240 Mb and includes a SCSI option.

Without a doubt this is the best value A4000/030 configuration in the UK

4000/030 170Mb HD INDI PRICE
£999.99

A full range of approved upgrades are available for the 4000/030, including additional memory modules, hard drives, FPU's (68881 & 68882) and the 24 - bit Opti Vision graphics and video system

INDI 309003 £39.99

AMIGA A600 PRICE CRASH



THE WILD THE WEIRD AND THE WICKED A600 is an ideal starter pack containing a complete range of software, making the most of the Amiga capabilities

PACK CONTAINS:

• A600 Single Drive

• Built in TV Modulator

• 1 Mb Memory

• Pushover Grandpate

• City Putter Deluxe Paint III

• Mouse and Manuals

LOW LOW PRICES

INDI 300006

£199.99

A600 - SD A single drive Amiga for those of you requiring a basic A600 at a very competitive price.

PACK INCLUDES: A600 single drive, built in TV modulator, 1 Mb memory, 12 Months at home service

INDI 300007

A600 EPIC PACK (40 Mb HD) PACK INCLUDES:
A600 Hard Disks (40Mb) • 1 Mb Memory • Epic • Rome • Myth • Trivial Pursuit • Amiga Text • Deluxe Paint III • 12 Months at home service.

INDI 300008

INDI A600 ACCESSORY PACK
• Microswitched Joystick • Lockable Disk Box • Disk Waker • 10 Blank Disks • Kick Off 2 • Pipemania • Space Ace • Populous • Zapack A600 Carry Case • Zappo T-Shirt

INDI 309000

WORTH £79.99 **£26.99**

TEL: 0543 419999 FAX: 0543 418079

REDUCED AVAILABLE ON 6, 12, 18, 24, 36 MONTHS.

WHY NOT RING NOW FOR A QUOTE. SAME DAY RESPONSE.

AMIGA PERIPHERALS & ACCESSORIES

NEW FROM MICROBOTICS!!! MI230XA ACCELERATOR LAUNCH!!

Microbotics beats the competition in price/performance/features and configurations. INDI is very pleased to announce the availability of the new 4800 accelerator product for the A1200; the microbotics MI230 XA (call it the "XA" for short), 50 Mhz as standard! Huge 128 MB memory design is standard (the biggest memory space in any A1200 peripheral) just look at these specifications and prices!

MI230 XA W/40 MHZ EC 030 0MB INDI PRICE £239.99
MI230 XA W/40 MHZ EC 030 4MB INDI PRICE £349.99
MI230 XA W/40 MHZ EC 030 8MB INDI PRICE £599.99
MI230 XA W/50 MHZ MMJ 030 0MB INDI PRICE £139.99
MI230 XA W/50 MHZ MMJ 030 4MB INDI PRICE £471.99
MI230 XA W/50 MHZ MMJ 030 8MB INDI PRICE £711.99

AUDIO VISUAL

MEGAMIX. Low cost, six digit digital effects cartridge plugs into the printer port of the Amiga. Allows stereo sampling from almost any musical source.

INDI PRICE £29.99 INDI 350000

TAKE 2. Animation package is a must for computer artists and enthusiasts of all ages. As used in Roll Harris Cartoon Club.

INDI PRICE £37.99 INDI 350001

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 £74.99 INDI 350002

ROMBO VIDI AMIGA 24(RT). For the more serious user, this 24-bit version will again capture from any video source with true photo realistic image! A staggering 16.7 million colours can be utilised with incredible results. Full AGA chipset support.

INDI PRICE £219.99 INDI 350004

AMIGA PERIPHERALS

2MB SMARTCARD. The original and still the only fully PCMCIA compatible memory card for A800 A1200 Comes with lifetime guarantee. Beware of cheap imitations.
INDI PRICE £109.99
4MB SMARTCARD. Same as above but maximum 4MB
INDI PRICE £159.99

ZAPPO 401

Trapdoor upgrade for the A600. 1Mb with RTC INDI PRICE £49.99
ZAPPO 401 INC As above only 512K, no clock INDI PRICE £39.99

MBX1200.

The original and best floating point unit and memory upgrade for the Amiga A1200. Available with 0.4 or 8 MB of 32 bit Fast RAM and a choice of floating point units. Now complete with real time clock (RTC)

MBX1200Z 68881 14 MHZ 0MB INDI PRICE £109.99
MBX1200Z 68881 14 MHZ 4MB INDI PRICE £249.99
MBX1200Z 68881 14 MHZ 8MB INDI PRICE £449.99
MBX1200Z 68882 25 MHZ 0MB INDI PRICE £169.99
MBX1200Z 68882 25 MHZ 4MB INDI PRICE £309.99
MBX1200Z 68882 25 MHZ 8MB INDI PRICE £519.99
MBX1200Z 68882 50 MHZ 0 MB INDI PRICE £289.99
MBX1200Z 68882 50 MHZ 4MB INDI PRICE £439.99
MBX1200Z 68882 50 MHZ 8MB INDI PRICE £599.99
68882 FPU UPGRADE 50 MHZ INDI PRICE £169.99

ROCTEC ROGEN PLUS.

As above but with extra features such as timing and signal inversion. Allows for real time editing of graphics. Compatible with all Amiga.

INDI 350050

INDI PRICE £129.99

ROCTEC ROCKEY.

The ultimate accessory for Amiga/Video fans. Separate RGB controls to choose any colour.

INDI PRICE £249.99

INDI 350051

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 A1200/4000 users.

INDI PRICE £129.99 INDI 350003

DISK DRIVES

ZAPPO EXTERNAL FLOPPY
You've seen all the reviews on this popular and affordable second Amiga drive. Compatible with all Amigas.

INDI 350152

INDI PRICE £49.99

Quality: 9 out of 10. Exceptional value for money.

AMIGA COMPUTING JAN 93

1084S MONITOR.

IBMorgans original and best selling colour stereo monitor.
Does NOT include STAND.

INDI 350014

£189.99

(£179.99 if purchased with A600 / A1200 / A1500)

The NEW OPAL VISION system (Rev.2)

The amazing OpalVision 24-bit graphics board and software suite has been updated and is now even better value for money.

The software suite now includes:

Open Paint V2.0. Now includes full magic wand implementation and Alpha Channel and allows photo compositing with selectable levels on a pixel by pixel basis. The new Chrominance effect allows absolute, real time control of image contrast, brilliance and re-mapping of colours.

Open AnimEater V2.0. offering real time play back of animations created by the new landscape generators, morphers and all other 24-bit software.

Open Hurley V2.0. Display OpalVision graphics anytime with key combinations.

"Quite simply, it's a spectacular product - Amiga Computing
"Undoubtedly the finest, most professional paint program to arrive on the Amiga" - Amiga Format
"Professional quality at this price can't be turned away" - Amiga User International
"The verdict was unanimous - brilliant"

- Amiga Shopper

INDI 350250

£349.99

MORPH PLUS

You've seen Michael Jackson's video, you've seen the television ads using the latest techniques in morphing, now now you can create the same results but at a fraction of the cost. Morph Plus is the latest and the ultimate in this technology. Whether you are a professional artist or just want to experiment at home Morph Plus is a must.

INDI PRICE £109.99

INDI 350200



DELUXE PAINT IV AGA

Combines powerful tools with an intuitive interface to both professionals and beginners alike can get superb results quickly. New enhancements to the software include the ability to paint and animate in 486 colours in the Amiga's HAM (Halt and Modify) mode. New animation features also include metamorphosis allowing you to change one image into another. You determine the number of frames and DPaint IV does the rest.

INDI PRICE £61.99

INDI 350201

ART DEPARTMENT PROFESSIONAL

The ultimate in image processing providing many key benefits to Amiga users working with pictures. With ADPro you can read, write and convert between most common image file formats with unrivalled flexibility. Full support for JPEG image makes it possible to maintain an image library in full 24-bit colour without needing massive hard disk storage. Typically a 400 Kb image can be compressed down to 40 Kb.

INDI PRICE £132.99

INDI 350202

REAL 3D V2

is a full featured 3D animation, modelling and rendering program. With Real 3D V2 you can produce high quality images and animations of three dimensional models with an astounding level of realism. Image creating an animation that shows a handful of balls bounce down a flight of stairs to the bottom. Gravity, collision, deflection and the elasticity of the balls are all automatically calculated by the program!



INDI PRICE £299.99

INDI 350203

SCALA Multimedia 200 (MM200)
Is the ultimate on professional video editing. The eminent design of typofaces, the unlimited choice of typographical details, the high resolution and the more than 80 exciting views result in video captioning of exquisite quality. No wonder that Scala is used by leading television stations around the world.

INDI 350204

INDI PRICE £139.99 also available

SCALA HOME TITLER

INDI PRICE £84.99 INDI 350205

VIDEO DIRECTOR

With Video Director, anyone with an Amiga, a camcorder and a VCR can quickly and easily catalogue and edit the best moments from their video tapes. Video Director is extremely easy to use, you can actually control your camcorder and VCR from your Amiga screen. Video Director comes with everything you need to get started. The hardware to control your camcorder and VCR is included.

INDI PRICE £119.99

INDI 350206

*Camcorder must have a LANC or Control-C compatible port.
Professional software is imported and sometimes subject to delay. Confirm delivery at time of order.

OPAL VISION



NEW FOR DECEMBER RELEASE!

The already acclaimed OpalVision Board takes three further leaps into the future with the official launch of the Opalvision Modules. With truly awesome capabilities the Amiga can now become the most professional 24-bit video graphics power station ever!

TEL: 0543 419 999 FAX: 0543 418 079

vision adve
to create the
the latest an
ational arse
350200
A
sh profes
New
and anim
vide. New
you to chan
emes and
50201
to AN
ffs to Am
rite and co
coloured fi
tain an
a hard dri
n to 40 K
50202
am
animation
ism. Imag
down a
and the el
gram
0203
2000)
ign of
high res
tioning of
evision
0204
0205
ed a VCR
can this
actually
video
hard-
0206
ject to

TERMS AVAILABLE OVER 6, 12, 24, & 36 MONTHS SUBJECT TO STATUS.

WHY NOT RING FOR A QUOTE. SAMEDAY RESPONSE. (SEE EXAMPLE)

Panasonic Quiet Colour Printing



We researched the colour printer market at great depth to find a colour printer good enough to cope with Amiga's powerful output, yet at an affordable price.

We found the perfect printer in the KX - P2180 and KX - P2123 quiet printers.

We then considered that if you were going to buy a Panasonic printer you would probably need a quality word processing package to use with it. We found that too, with 'Wordworth', yet at a retail price of £129.99 we thought that might be a little too expensive on top of your printer purchase! So together with Panasonic we decided to give a copy of 'Wordworth' free with every Panasonic printer. How's that for added value!

Panasonic KX - P2180



*WORDWORTH AGA COMPLETELY FREE!

WITH PANASONIC QUIET PRINTERS. The writers choice. The ultimate word processor for AMIGA computers. Wordworth is undoubtedly the ultimate word / document processor for the full range of AMIGA computers. The graphical nature of WORDWORTH makes producing documents faster and easier, with the enhanced printing forms (including full Panasonic KX - P2180 and KX - P2123 colour printing support). Collins spell checker and thesaurus, no other word processor comes close. "Without doubt this is one of the best document processors for the AMIGA. Today" (Amiga Forum)

NORMAL RRP £129.99 inc. VAT

INDI 320000

£169.99

INDI 320001

£1219.99

The new Panasonic KX - P2180 9-pin quiet printer.

Produces crisp clear text in mono or in 7 glorious colours with new quiet technology. The new KX - P2180 is typically 15dba quieter in operation than the competition.

• **Fast Printing Speeds** 192 CPS NLQ

• **Colour Printing** 7 colour palette (blue, red, green, yellow, violet, magenta, black)

• **Quiet printing** Super quiet 45 - 48 dba sound level (most matrix printers are typically in excess of 60 dba)

• **6 Resident Fonts** Over 6,000 type styles using Courier Prestige, Bold PS, Roman, Script and Sans Serif Fonts.

• **3 Paper Paths** Paper handling from bottom, top and rear for total flexibility

• **1 Year Warranty** for total peace of mind

Panasonic KX - P2123



The new high performance Panasonic KX - P2123 24 pin. Quiet colour printer offers leading edge quiet printing technology at an affordable price

• **Fast Printing Speeds** 192 CPS draft, 64 CPS LQ and 32 SLQ

• **Colour Printing** 7 colour palette (blue, red, green, yellow, violet, magenta, black)

• **Quiet Printing** Super quiet 43.5 - 46 dba sound level (most matrix printers are typically in excess of 60 dba)

• **7 Resident Fonts** Over 152,000 type styles using Super LQ, Courier Prestige, Bold PS, Roman, Script, and Sans Serif Fonts.

• **24PIN Diamond** Printhead High performance and high quality output

• **1 Year Warranty** for total peace of mind.

Panasonic LASER PRINTER

KX - P4410 LASER PRINTER



WORDWORTH AGA COMPLETELY FREE WITH PANASONIC LASER PRINTERS. The writers choice. The ultimate word processor for AMIGA computers. **NORMAL RRP £129.99 inc. VAT**

KXP - 4410

- 5 pages per minute
- 28 resident fonts
- Optional 2nd input bin (total printer capacity 2 x 200 sheets)
- Low running costs
- Parallel interface
- Optional memory expansion to 4.5 Mb (0.5 as standard)
- HP LaserJet II Emulation

SAVE £50

INDI 320002

NEW LOW PRICES!

£499.99

inc. VAT

WORDWORTH AGA COMPLETELY FREE WITH LASER PRINTERS

Panasonic

2 YEAR ON-SITE WARRANTY

KX - P4430 LASER PRINTER



KXP - 4430

- Satinprint (optimum resolution technology)
- 5 Pages per minute
- HP LaserJet III Emulation, PCL 5
- 8 Scalable fonts & 28 bitmap functions
- Optional 2nd input bin (total print capacity 2 x 200 sheets)
- Optional memory expansion to 5.0 Mb (1 Mb as standard)

SAVE £50

INDI 320003

NEW LOW PRICES!

£649.99

inc. VAT

*"Satinprint" opt. optimum-resolution technology to produce more consistent print quality. Includes 100 pages of printed characters and lines by printing print file data.

WORDWORTH AGA COMPLETELY FREE WITH LASER PRINTERS

Panasonic PRINTER ACCESSORIES



- PANASONIC AUTOMATIC SHEET FEEDER**
Automatic sheet feeder for KXP 2180 KXP 2123 holds 80 A4 sheets. **INDI PRICE £89.99**
- PRINT DUST COVER**
Specially tailored quality dust cover for Panasonic KXP 2180 KXP 2123 printer. **INDI PRICE £8.99**
- PRINTER STAND**
2 piece printer stand. **INDI PRICE £9.99**
- PAPER PACK**
500 sheets quality A4 paper. **INDI PRICE £9.99**
- CONTINUOUS PAPER**
200 sheets 1 part listing paper. **INDI PRICE £19.99**
- PARALLEL PRINTER CABLE**
To be used when connecting Amiga to Panasonic printers. **INDI PRICE £8.99** (£3.99 if purchased with a printer)
- PANASONIC COLOUR RIBBON**
Colour ribbon for KXP 2180 KXP 2123. **INDI PRICE £8.99**
- PANASONIC BLACK RIBBON**
Black ribbon for KXP 2180 KXP 2123. **INDI PRICE £8.99**

SAVE ££££ ON THE FOLLOWING ACCESSORY PACKS

- Pack 1 PANASONIC COLOUR RIBBON PACK**
Contains 6 colour ribbons for the KXP 2123 RRP £119.99. **INDI PRICE £89.99 SAVE £30!!**
- Pack 2 PANASONIC RIBBON PACK**
Contains 2 black and 4 colour ribbons for KXP 2180 KXP 2123 RRP £99.99. **INDI PRICE £69.99 SAVE £30!!**
- Pack 3 PANASONIC DELUXE ACCESSORY PACK**
Contains automatic sheet feeder, 2 black ribbons, 2 colour ribbons, 1 dust cover, 2 piece printer stand. **RRP £169.99 INDI PRICE £139.99 SAVE £30**

Add £30 carriage to all printer accessories or combinations thereof

TEL: 0543 419 999 FAX: 0543 418 079

LOW INTEREST CREDIT ON ALL ORDERS OVER £200
(PLEASE CALL FOR A QUOTATION, SUBJECT TO STATUS)

AMIGA CDTV

THE MULTIMEDIA COMPUTER TOTAL HOME ENTERTAINMENT SYSTEM

PRICE CRASH!!!

PACK CONTENTS AS STANDARD

- Amiga CDTV Player
- CDTV Keyboard
- CDTV 1411 3.5" Disk Drive
- CDTV Info Pad Remote Controller
- CDTV Wired mouse
- CDTV Welcome Disk
- Manuals
- Free Fish CDTV Disk

INDI 30 0011

PACK AS SHOWN £229.99

If you are thinking of buying CDTV or already own one you'll be pleased to know that INDI stock all CDTV accessories and software that are available. We believe in CDTV and we therefore continue to support this exciting product. You will always have a source of product for your CDTV from INDI.

L to R

CDTV Encore SCSI Controller + Internal Mouse

CDTV Internal Genlock

Black 10845 Colour Stereo Monitor

(When purchased with CDTV Multi + Media Pack)

CDTV Remote Mouse

Scart TV / Monitor Lead

CDTV Trackball

AMIGA CDTV EXTERNAL HARD DISK DRIVE

You've got the CDTV, you've got the keyboard and the floppy disk drive - for a total computer solution all that's needed is an ultra fast hard disk drive.

The CDTV - HD unit boasts a massive 60 Mb of hard disk storage with lightning fast access times through its SCSI interface. The unit comes complete with Workbench 1.3 and all necessary cables.

INDI 350300

£219.99

£59.99

£9.99

£139.99

£179.99

£39.99

£14.99

£69.99

BLACK 10845 MONITOR

At last the CD 32 Monitor you have been waiting for. The original and best selling colour/ stereo monitor from Commodore is now available in black to complement your CD 32.

INDI 300010

£179.99

AMIGA CDTV SOFTWARE

New Amiga CD 32 AGA Titles Now in Stock!!

ARTS AND LEISURE

Advanced Military Systems £29.99
Women in Motion £34.99
Guinness Quiz of Records £34.99
Animals in Motion £29.99
Commissaire Fimo Arts £34.99
Fruits & Vegetables £24.99
Trees & Shrubs £34.99
Indoor Plants £34.99

EDUCATION

Fun School - Under 5's £24.99
A Long Hand Day at the Ranch £34.99
A Run for Barney £24.99
Chinderville £24.99
Fun School for 5 to 7 £24.99
Fun School for Over 7's £24.99
Heather Hills her First Horse Ride £34.99

Word Run

Mud Puddle

My Part

Paper Bag Princess

Scary Poems for Rotten Kids

Tale of Benjamin Bunny

Tale of Peter Rabbit

Thomas's Snowsuit

Monkey Goes on Stomach Ache

Benny Bear Goes Camping

Animals French for English 1

Japan World (PAL)

French Universe

Read with Parents

ENTERTAINMENT

Baseball

Al Dap Go To Heaven/Beetle Opera

£29.99

£29.99

£29.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

£34.99

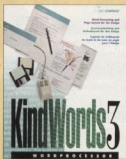
£34.99

£34.99

Best-Selling Amiga Titles at Amazing Prices.

KindWords3

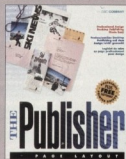
enough to have you working in minutes and yet sophisticated enough to provide all the features you need for your resumé's, reports, correspondence and all your writing projects. Page layout, mailing list merge and a variety of other up-to-date functions make KindWords the right choice for users of all ages.



An essential requirement for the office and your home! The friendliest word processor you'll ever use. Simple

This tremendously powerful desktop publishing program offers unrivaled output, ultra-fast operation and a wide variety of superb special effects you

THE Publisher



never imagined using. This publishing system lets you design and create professional-looking documentation efficiently and effortlessly. Now you can create the perfect page layouts for your leaflets, ads, newsletters or novels, with infinite ease!

The Lost TREASURES of Infocom

Round out your computer game library with a fortune of interactive mystery, fantasy and science fiction adventures you'll be sure to treasure in one value-packed collector's edition! Enjoy spine-tingling suspense and brain-teasing puzzles in such big-name games as *Zork*, *Planetfall* and *Deadline*. Dare to solve murder cases, discover lost pyramids, break mysterious curses, and rendezvous with alien vessels in your favorite Infocom adventures!



MaxiPlan4

This acclaimed spreadsheet, database and charting program lets you take control of all your number and data tasks! Tackle financial analysis, database lists and marketing research with the accuracy and speed your projects require. Organize, calculate and present your data clearly and graphically with colorful charts all in one multi-use program. Save time and energy by automating repetitive or tedious tasks with our simple macros command and more!

Now you can get four of the all-time best-selling Amiga programs for amazingly lower prices.
For more information please call 0295 252 524.

KindWords 3
NOW ONLY £29⁹⁹

The Publisher
NOW ONLY £29⁹⁹

The Lost
TREASURES of Infocom
NOW ONLY £29⁹⁹

MaxiPlan 4
NOW ONLY £29⁹⁹

KindWords 3, MaxiPlan 4, and The Publisher are copyrights of The Disc Company.

THE DISC COMPANY
A DIVISION OF ACTIVISION

The Lost Treasures of Infocom is a copyright of Infocom

CONTENTS

AMIGA
insight

Nine pages for enquiring minds

The most authoritative
monthly columns in the
business, covering all
areas of specialised
Amiga activity

ARexx

134

Alex Ginn presents a newcomers
guide to this powerful and flexible
programming and scripting tool,
for all Amigas

Video

137

Adam Phillips looks at recruit-
ing your crew in this, the second
part of his epic serialisation of
the video-making story

Music

141

As a prelude to the silly season,
Paul Austin provides a concise buy-
ers' guide to the best of the Amiga
music software

Comms

143

Phil South looks at what life's
like on the Internet, and asks
a few questions about FTP

Amos

145

How to use the Amos Sort func-
tion complete with examples,
and some more coding widgets,
from Phil South

Publishing

147

What is a template and why is
it so important? Ben Painter
investigates and draws his
conclusions

FEATURES

Word processor round-up

32

A look at the best wordsmiths for those dynamic digits

Cold toast

40

Why the PAL Video Toaster isn't here after all

RAM expansion round-up

44

A1200 RAM boards tried and tested

How 2: fix an A1200 hard drive

50

Advice on the best way to go about upgrading your machine

Survival guide to floppies

84

How they work and how to keep them working

Updates

89

Pixel 3D Pro and the latest Alternative Textures given an airing

Amos 3D support

101

Hints and tips on using our CoverDisk freebie

REVIEWS

Primera colour printer

59

Fargo's superb low cost colour printer put through its paces

Piccolo graphics card

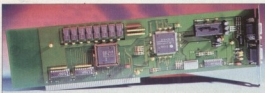
60

New 24-bit display card with some hot software

Peggy FMV

96

Mpeg decoding brings full motion video to the Amiga at last



LightRave

114

A dongle which brings Lightwave to your Amiga at last

Pegger

121

Automatic Jpeg compression software to save disk space

GAMER

Brilliant, bright, breezy, bracing, brisk, and
ludicrous, *Gamer* is the only games section
you'll ever need. It's really rather good.

Gamer Globe

126

What's happening or about to in the games world

Cheap Seats

141

A second chance to buy classics at budget prices

Drawing Board

146

That alien with attitude returns to a screen near you

CD32 Update

148

All the latest happy shirring discs

Cheat Mode

150

Libar 2's deepest secrets laid bare

GAME REVIEWS

Micro machines

128

Space Hulk

130

Stardust

132

Combat Air Patrol

134

Wonder Dog

136

Dreamlands

139

Overkill

140

Alfred Chicken

142

Cardianna

144

Amiga Market

The monthly roundup of
the best hardware and
software around,
classified ads, buying
tips, and lots more

Classifieds

180

Shop Window

182

- Idek monitors
- Clip art
- Multimedia Toolkit
- Disk Expander
- Protext 6.0 preview

Hard Times

189

Advertising index

190

**NEXT
MONTH ON
SALE NOV
16th DEC**

The COVERDISKS

Two disks packed with commercial and shareware software to suit every taste



**Superb animation
editing program
for all Amigas**



Create icons, pictures, and more with this flexible painter

Magic Menu
Replace your menus with the 3D pop-up variety

DropBox
Multi-purpose Applcon utility

DSound
Samples direct from hard disk

Error
Unravel the mysteries of the AmigaDOS error message

Move
New DOS command to make life easier

Army Miner
Silky smooth version of the classic puzzle game

Mousometer
A hack to measure how far your mouse moves

Turn to page 22

REGULARS

News

11

Where have all those promised CD32 games gone?

USA News

16

Imagine 3.0 blinks in the daylight at long last

Comment

18

The danger of VAT and how it'll make AC 82p more expensive

Beginners' disk

27

Getting the most from your AC CoverDisk

Disk offers

28/62

Take a Take 2 or Amos 3D bargain home with you

ESP

55

Can an Amiga really wreck your marriage?

ACAS

63

The aspirin for every Amiga headache

Public Sector

108

Disks and disks full of the best shareware around

Subscriptions

122

Cut price goodies and a year's supply of your favourite mag

Competition



**Win a guided
tour round a
London CD32
development
centre!**

Subscriptions

Choose the option that will suit you best - either a 12 issue or a quarterly subscription, with small direct debit payments.

This month we'll even make a donation to Children in Need on your behalf

COVER STORY



**BUDGET
BUSTER**

16-page supplement packed with the best buying advice for Amiga owners this Christmas, all backed up by two round-ups and a survival guide!

- floppies
 - monitors
 - RAM
 - printers
 - essential software
 - consumer rights
- and lots more!
Starts page 67**



Ladbroke Computing



33 Ormskirk Rd,
Preston, Lancs,
PR1 2QP

Ladbroke Computing International are one of the longest established home computer dealers in the U.K. We have developed an extensive customer service policy which involves testing of all hardware prior to dispatch to ensure that goods arrive in working order, offering free advice and support over the phone and keeping customers informed. Although our prices are not always the cheapest we do endeavour to offer consistently good service and backup.

All prices/specializations are correct at copy date 1/11/93 (white stocks last), and are subject to change without prior notice. All prices include VAT but exclude delivery.

How to Pay

You can order by mail Cheques/Postal Orders made payable to Ladbroke Computing. Or give your credit card details over the phone.

Delivery

Postal delivery is available on small items under £40 (Normally £3, phone for details). Add £7 for courier delivery. Next working day delivery on mainland UK subject to stock (£20 for Saturday delivery).

Open Mon-Sat 9.30am to 5.00pm.
Ladbroke Computing Ltd trading as Ladbroke Computing International.

Fax: (0772) 561071
Tel: 9am-5.30pm (5 Lines)
(0772) 203166

Printers



- Star
- Star LC100 Colour £165.00
- Star LC20 £124.00
- Star LC24/100 Mono £179.00
- Star LC24/300 Colour £249.00
- Built in 55 sheet feeder
- 24 Pin Colour
- Starjet SJ48 Bubblejet £210.00
- Star SJ144 £549.00
- Thermal max transfer colour printer
- 144 element head
- Glossy colour output
- 360 dpi resolution

Citizen
Citizen Swift 240 Colour £270.00

Hewlett Packard
HP Deskjet 510 £299.00
HP Deskjet 500 Colour £299.00

Lasers
Ricoh LP1200 £699.00

Add £3 for Centronics cable and £7 for next working day courier delivery.

GVP II Hard Drives



- Quantum SCSI Hard drive
- Ultra fast 11ms access
- Up to 8Mb RAM on board
- 2 year warranty

42Mb No RAM £199.00
80Mb No RAM £299.00

SPECIAL OFFER

170MB NO RAM

£349

240MB NO RAM

£399

2Mb SIMM Upgrade £69.99
4Mb SIMM Upgrade £139.99

GVP 286 Emulator

- 16MHz 286 PC Emulator
- Norton rating 15
- Plugs into GVP II HD's
- GVP PC-286 Emulator £89.00

A500+ Accelerators

- Quantum SCSI Hard drive
- 40MHz 68030 Accelerator
- FPU expansion slot
- A530 42Mb £389.00
- A530 80Mb £489.00

SPECIAL OFFER

A530 170MB

£579

A530 240MB

£659

GVP Genlock

- Video processor provides real time software control of brightness, contrast, saturation, hue, sharpness, filtering, gain etc.
- Audio processor with two audio inputs, software switchable or mixable, with software control of Volume, Bass and Treble effects.
- G-LOCK Genlock £284.00

A1200 Hard Drives

- Plugs into internal IDE expansion
- Ribbon cable exits through PCMCIA slot
- Warning fitting voids warranty
- 170Mb £249
- Phone for higher capacities.

Amiga Packs

- Amiga A600 Lemmings Pack £184.99
Includes A600 with 1Mb RAM, Lemmings
- Amiga 600 Wild, Weird and Wicked Pack £194.99
Includes A600 with Pushover, Microprose Grand Prix, Putty and Deluxe Paint III
- A1200 Race & Chase £289.99
Includes A1200 with 2Mb RAM, Troils and Nigel Mansell
- A1200 Desktop Dynamite £349.99
Includes A1200 with 2Mb RAM, Digita Wordworth, Digita print manager, Deluxe Paint IV, Dennis, Oscar
- Amiga CD32 £289.99
2Mb RAM. Dual Speed CD ROM. Multi session, plays music CD's, 256000 colours on screen, includes 2 games Oscar and Diggers.
- Amiga 4000 030 £999.00
Includes A4000, 030 processor, 2Mb Chip RAM, 80Mb Hard drive.



Speed Mouse

- 290dpi resolution
- 2 Microswitched buttons
- Opto/Mechanical mechanism
- Switchable between Amiga/ST
- Direct Mouse Replacement

Speed Mouse

£11.99

Floppy Drives

- 880K formatted capacity
- Double sided, Double density
- Through port
- Cumans CAX 354 £54.99
- Amiga 500 internal drive £49.99

RAM Upgrades

A500 512K upgrade

£14.99

A500+ 1Mb upgrade

£19.99

A600 1Mb with clik

£39.99

Plugs straight into A600 trap door compatible with A600, A600HD

A1230 Accelerator

- 40MHz 68030 accelerator
- Makes your Amiga 1200 run over 7 times quicker.
- Allows up to 32Mb RAM
- Optional FPU
- A1230/0Mb/No FPU £239.00
- A1230/4Mb/No FPU £379.00
- A1230/4Mb/68882 FPU £479.00

Monitors



- Philips 8833 MKII £199.99
Includes 12 Months on site warranty (Mainland UK)
- Samsung C13552X £179.99
14" SCART input TV with remote control and on screen display (requires SCART cable for high quality display)
- Samsung C15322X £249.99
20" TV with SCART input for high quality display of computer output. Features remote control, on screen displays, Auto tuning
- Microvitec 1440 £399.99
The Microvitec 1440 is a multisync monitor compatible with the A1200. Includes setup memory for different resolutions.
- Colour SVGA Monitor £229.99
High quality Colour SVGA Monitor 28 dot pitch.
- A1200 VGA adaptor £14.99
- Falcon VGA Adaptor £9.99
- Philips SCART to Amiga £9.99
- 8833 MKII to Amiga £9.99

Falcon 030

- 16MHz 32 bit 68030 Central Processor, 16MHz Blitter, 32MHz 56001 Digital Signal Processor
- 1.44Mb 3.5" Floppy, up to 14Mb RAM, Displays 65536 colours from 262144 palette
- 8 Channel, 16 bit, high quality Stereo sound sampling
- FALCON 1Mb No HD £499.00
- FALCON 4Mb No HD £699.00
- FALCON 4Mb 64Mb HD £799.00
- FALCON 4Mb 127Mb HD £899.00
- FALCON 4Mb 209Mb HD £999.00
- Falcon Screen Blaster £89.00

Repair Services

Our Service department can repair Amiga's in minimum time at competitive rates. We can arrange for courier pickup and return delivery of your machine to ensure its safety. We even have a same day service which will ensure your machine is given priority and subject to fault, completed the same day. We offer a Quotation service for £15 for which we will examine your machine and report back with an exact price for repair. If you do not wish to go ahead with the repairs then just pay the £15. However if you do go ahead then the charge is included in the minimum charge. Please note: The minimum charge covers labour, parts are extra.

Quotation service	£15.00
Min repair charge	£35.25
Courier Pickup	£11.00
Courier Return	£7.00
Same day service	£15.00

NEWS

by John Butters

Game delays lose CD32 sales



CD32: Games not appearing on schedule

SALES of Commodore's CD32 console are being lost because games promised for the system are not appearing on time, Amiga Computing can.

More than 40 titles were originally promised for the machine by Christmas, but we have learned that launch dates are slipping on many.

At the time of going to press only a handful were available, although Commodore had earlier expected 18 to have been on sale by the end of September.

Many are now promised within the next few weeks, but without high quality software on sale during the early Christmas buying period, some shoppers are turning to alternative systems.

Sega and Nintendo have just unveiled new packs and although their machines offer lower specifications, console buyers are being attracted by their huge software catalogues.

Darren Booth, the assistant manager at one electronics store in Manchester, told us that some customers who look first at the CD32 are then buying a Sega or Nintendo console. He said people are impressed by the number of games available – and especially Sega titles Street Fighter and Mortal Kombat – although he was satisfied with CD32 sales so far.

Of the developers, Millennium have stuck close to their

plans but several others we spoke to blamed development delays as the main reason for late launches.

Three titles will appear from Ocean Software before Christmas – at CD32's launch they had promised six.

The firm's spokesman Steven Hayes said legal complications are holding back the release of Jurassic Park and CD32-specific titles are taking longer to program than planned.

Thalion's Tony King, meanwhile, said his company have scrapped plans to support the console, although the rights to Lionheart have been passed to another software house. And at System 3 operations manager Tim Best said: "We are certainly making a heavy commitment to CD32 – but we're not rushing into it."

He explained the firm will be launching at least one

game in the next few weeks but certainly not the four Commodore claim are due from the company by the end of the year.

Several other companies reported products in the final stages of development, although said production of some had slipped. Gremlin, one of the biggest CD32 developers, were unavailable for comment.

Commodore spokesman Tim Green was unaware of the delays and expected around 40 CD32-specific titles to be available by Christmas as planned.

Word processing takes the professional route

The publishers of Amiga word processors Final Copy II and Pen Pal claim their latest package produces documents as professionally as expensive PC and Apple Macintosh systems.

SoftWood's (0773 836781) Final Writer uses one-touch Command buttons to enable the user to create documents easily, with many functions accessed by a mouse click. Its features include auto-indexing, a

table of contents, a table of illustrations, spelling checker, thesaurus and several graphics functions.

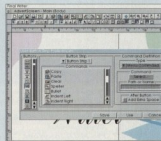
It has a comprehensive range of print options and uses PostScript font outlines for high quality output without the need for a PostScript laser printer.

But people using such a machine will find a range of extra benefits, such as thumbnails – small icons showing how the

document will print – scaling, half toning and crop marks.

The £129.95 package comes with more than 100 typefaces and 100 EPS clip art images. It needs at least 1.5Mb of memory and a hard drive.

● See how Final Writer matches up to the competition in our word processor round-up starting on page 32



Final Writer: Meeting professional standards

More Good News from Microdeal



Music

Clarity16

New

version 1.5

Clarity16 is our premier, professional sound sampler allowing rates up to 32KHz in 16 bit stereo and up to 48KHz in 16 bit mono on a standard Amiga; accelerated machines can handle faster sampling rates.

The software provides extensive features including full edit control, a MIDI keyboard emulator, a sample sequencer, many special effects, FFT analysis and much more.

New Version 1.5 has an up-to-date Workbench 3 look, in its own window and includes many enhancements allowing full compatibility with faster Amigas.

Megalosound

New

Our brand-new, 8-bit stereo, direct-to-disk budget sampler is now shipping.

The Megalosound system is packed full of easy-to-use editing features, special effects and extras such as the ability to print waveforms and sample information.

The package allows sampling up to 84KHz mono and 56KHz stereo to memory and up to 21KHz stereo to hard disk on an A1200. Supplied with a hardware volume control and an extensive 144-page manual, Megalosound is impressive value at only £34.95.

Pro-MIDI Interface

This interface allows you to connect a MIDI system to any Amiga computer via the serial port of your machine using a single multi-core cable. The interface sits conveniently next to your computer and provides MIDI In, Thru and two Out connections. Pro-MIDI is compatible with all leading Amiga MIDI software and comes complete with a miscellany of MIDI PD utilities on disk.



Video

New



VideoMaster AGA

VideoMaster combines the beauty of a video digitiser, the fun of a sound sampler and some superb sequencing software to provide a true Multimedia system that is a joy to use. This is the one package that you need for producing high quality stills & 25 frames/second movies with sound!

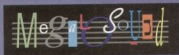
New A1200/A600 version. Previously, only A500 owners have been able to take advantage of VideoMaster; now A1200 and A600 users can work with this amazing package and enjoy brand-new features such as superb HAM 8 (A1200 only) and 640x512 digitised stills and 160x100 25 frames per second monochrome video with sound. VideoMaster AGA plugs into the PCMCIA slot thus leaving your Amiga free for further expansion.

ColourMaster

New

To complement the VideoMaster system, we have developed a high quality RGB colour splitter which allows you to automatically digitise full colour movies/stills, directly from the VideoMaster RGB software. The splitter is packaged with VideoMaster RGB.

The picture above is an *sun-retouched* shot taken outside Microdeal's offices with a Panasonic camcorder and digitised with ColourMaster and VideoMaster AGA, all within a few seconds!



Prices

Clarity16	£149.95
Megalosound	£34.95
Pro-MIDI Interface	£24.95
VideoMaster AGA	£79.95
VideoMaster RGB	£139.95
ColourMaster	£69.95

microdeal



All Microdeal products should be available from your local Amiga computer shop. In case of difficulty, you can order directly from Microdeal using your credit/debit card over the phone or by sending us a cheque/postal order. For more information on any of our products which includes HiSoft software (e.g. *Discip*, *Amiga 3*, *HighSpeed Pascal*, *8/AS/6* etc.), please call Microdeal on +44 (0) 525 713671, or fax us on +44 (0) 525 713716 or write to us at: The Old School, Greenfield, Bedford MK45 5DE. UK.

News Briefs

More storage inside

FOLLOWING the success of their external 1.76Mb high density disk drive, Power Computing (0234 843388) have developed an internal version for all Amigas. It costs around £90.

Render price bender

CALIGARI have slashed the price of rendering and animation package Caligari 24 in a bid to oust competitor Real 3D from its market stronghold.

Meridian Software (081-543 3500) will be selling the state-of-the-art system for £99.95, while they have announced a £329.95 price tag for Caligari Broadcast.

CBM to go live

COMMODORE have confirmed they will be exhibiting at next year's Live 94 consumer electronics show following the overwhelming success of the first event held recently in London.

It was the company's first chance to show the public their CD32 console which, say Commodore, was a key attraction throughout the five days.

Going to film

ALTERNATIVE Image (0533 440041) are now able to output common Amiga image files to 35mm film. Prices vary depending on the number of pictures – for one file the cost is £6.

Scanner mix-up

A COUPLE of errors slipped into last month's scanner round-up. The Migraph Colourburst sells for £399 and the AltaData and Migraph range are distributed by Golden Image (081-518 7373).

Power take on genlocks

POWER Computing (0234 843388) are set to take on distribution of Lola genlocks MiniGen and MiniGen Pro. Prices will be £49.95 and £149.95 respectively.

Printer maker targets Amiga

CITIZEN are set to target the Amiga market as part of a new strategy aimed at making the firm one of Europe's key printer suppliers.

They will make hi-spec, low-cost, colour-capable models for office and home users, and have already announced details of new products for that section of the market.

The Project II inkjet offers laser-quality output at 300 dots per inch and speeds of three pages per minute in draft and two pages per minute in letter-quality mode.

The £304 machine contains three letter quality fonts – Courier, Letter Gothic and Times Nordic – and a built-in sensor which detects when ink is running low.

But Citizen see one of the machine's biggest strengths in its low running costs – claimed to be two pence per page.

"Separating the ink cartridge from the print head allows the cartridge to be replaced 12 times on average within the life of a single print head," said marketing manager Julie Haswell. "This keeps running costs substantially lower than many other inkjet printers, where the head is disposed of at the end of the life of each cartridge."

A colour version of Project II will be released early next year, at which time the firm will also launch ABC, an "ultra-low end" dot matrix machine targeted at first time printer buyers. It will come with Amiga software designed to help newcomers get started and automatically install drivers, and have a print speed of 192 characters per second in draft mode.

In letter quality mode the speed will be 72cps, and users of the £233 machine will have a choice of five fonts. An optional colour kit will cost £29.99.



Project II: Low running costs a big strength

Top graphics come on card

A 32-BIT graphics card has been launched for Amiga users who want to give their computer broadcast-quality paint, 3D modelling, morphing and computer-aided design capabilities.

Director II features 24-bit live image capture, a digitally-designed genlock in 525 or 625 lines giving improved stability and scrolling of full screen 24-bit pictures.

It contains 4Mb of VRAM and 4Mb

CPU DRAM as well as an on board TMS34020 processor with optional co-processor. An expansion port enables extra memory and accessories to be fitted.

Output can be scrolled from an internal buffer of 1,024 x 1,024 pixels in 32-bit, and horizontal resolution is programmable from 640 to 1,500 pixels.

Cost, £2,226 from Triton Marketing (081-991 5591).

CD quality sound on a budget

DIGITAL Audio Designs have developed a high resolution budget 16-bit sound system that is claimed to improve the Amiga's sound to CD and DAT recorder quality.

Wavetools uses the computer's hard disk drive to record, edit, mix and play back audio, has a frequency response of 10Hz to 20kHz and a dynamic range of 85dB.

It employs 64x oversampled Sigma-Delta conversion technology and comes with a pair of stereo I/O jacks for linking to any device with standard Line In and Line Out connectors.

Voice-overs and other sound effects can be added to produce clear audio tracks for special productions.

Multiple waveform windows can be open at the same time and sound out and pasted between open files to help build complex audio tracks.

There is support for digital mixing of unlimited numbers of tracks, and using Wavetools' mixer it is possible to layer sound upon sound to make high quality full audio tracks.

A range of editing and mixing features are available including overdubs, perform, ADR and the ability to place sound effects at specified points in the track.

An editor can be used to cut, copy, paste and mix selected parts of audio waveforms.

An internal time code is maintained in the format of SMPTE 24, 25 and 30 frames per second to ensure synchronisation of audio files with video and animation.

The £350 card plugs into accelerated A2000s plus A3000s and A4000s. The US firm are looking for a British distributor but in the meantime can mail the package to UK customers.

They can be telephoned in California on 010 1 714 562 5926.

PageStream set for features boost

THE US makers of Amiga desktop publishing software PageStream have announced details of an improved version of the package due for launch early next year.

PageStream 3 contains several new functions, including extra trapping and plate control functions which Soft-Logik say make the program a leader in the pre-press field.

A dual paragraph and character style system gives the options style override, style ripple and object styles and makes it easier to apply attributes to text and objects.

Its toolbox can be swapped between small, large, vertical and horizontal layouts, while floating panels for fonts, colours, styles, macros and pages aid editing.

Document formatting has been improved with auto-kerning and auto-hyphenation, text styles are configurable and tab allows left, centre or right alignment on any character.

The industry standard Pantone Colour System is used to

ensure colours are printed accurately and there is support for spot and process colour, CMYK, HSV and RGB.

A Soft-Logik spokesperson said: "It's not just an upgrade but a completely new program. We have rewritten it from the ground up and have added hundred of new features."

"With PageStream 3, the Amiga now leads all computer platforms in desktop publishing innovation."

It is expected to cost £319, but Amiga owners who have bought PageStream 2.2 since March 15 can upgrade by sending their registration card, receipt and \$5 for postage to Soft-Logik.

Other owners of PageStream 2 or higher can upgrade for \$125. The St Louis-based developer can be telephoned on 010 1 314 894 8608 and dealer Meridian Distribution on 081-543 3500.

Big bucks for big memory

SIXTEEN megabyte memory chips are now available to A1200 and A2000 owners using Great Valley Products accelerators – the bad news is they cost £1,299 each.

High speed, high density modules give GForce40/33 and A1230 Turbo+ owners the ability to increase their memory by a factor of four to 64Mb and 32Mb respectively.

Andy Leaning, spokesman for GVP's British distributor Silica Systems said the chips are aimed at users of memory hungry applications such as computer-aided design.

He said that whereas most Amiga memory has a speed of between 70 and 80ns, this RAM works at a higher rate of 60ns and blamed the high price tag on the technology advancement. A fitting service is available from the firm, who can be telephoned on 081-309 1111.

Golden upgrades for Amigas

TWO upgrades for owners of top-end Amigas have just been added to London-based distributor Golden Image's (081-365 1102) range of products.

Multiface Card III expands the computers by adding two serial ports and a parallel port working at high transfer rates.

Through multi-tasking, the ports can be used simultaneously and are claimed to be suitable for mailbox, modems, plotters, lasers and networks.

Oktagon 2008 is a SCSI-II controller that can be expanded with up to 8Mb of memory and allow seven SCSI devices to be connected to the machine.

It features auto-reading of SCSI unit parameters, automatic disk change detection, login and password protection and comes with virtual memory Cigamem.

Both work with A2000s, A2500s, A3000s and A4000s and cost £129 each.

Scanning systems improve at Power

PERIPHERAL manufacturer Power Computing (0234 843388) have improved their scanning software and are set to launch a colour hand scanner which plugs into the Amiga's parallel port.

Software Power Scanner 4 has a redesigned interface, the ability to add text to scans using any font and size, auto colour sections of grey scale scans and a full Undo feature.

There is manual or automatic resolution selection, an improved print control menu, ability to create 16, 64 or 256 greyscale images and full 24-bit scan handling.

The company's new colour hand scanner, meanwhile, plugs into the parallel port of any Amiga, making it available to owners of A600s and A1200s.

The E200+ device gives 4,096 colours on non-AGA computers and 262,144 on machines with the latest graphics. It comes with v4 of the firm's software.



Power Scanner: New software and parallel port model

Books offer Amiga advice

BRUCE Smith Books (0923 894335) have just published a new title and announced details of others due in the next few weeks for Amiga users who want to learn more about their computer.

Mastering AmigaDOS 3 - Reference is a guide to the A1200 and A4000 version of AmigaDOS, covering more than 140 commands in 416 pages. Each appears with a synopsis and templates and where appropriate there is a cross-reference with other commands.

Practical examples are given and there is material on Preferences, hardware support, AmigaGuide/MultiView, hard drive backup, IFF and Exchange Qualifiers.

Amiga A1200 Next Steps will assume basic knowledge of the computer and show how to progress onto greater things such as programming in MultiView and installing a hard disk.

Absolute beginners to machine code will be taught how to program the A1200 by Paul Overaa in *Amiga Assembler Insider Guide*. And enthusiasts interested in learning more about the Workbench will be helped by the firm's fourth book *Amiga A-Z Workbench 3*.

Long life head for inkjet

SPEEDJET 200 is Seikosha's latest contribution to the budget end of the ink jet printer market, with its key feature being a long life printhead.

It can be refilled up to six times from separate cartridges in an operation which Seikosha claim is easy, environmentally sound and cheap.

This model has 300 x 300 laser quality resolution, a maximum format of 80 columns at ten characters per inch and a print speed of three pages per minute.

Paper handling is semi-automatic manual feed suitable for single sheets, envelopes and transparencies although there is an option for an automatic sheet feeder which can hold 70 sheets.

It comes with 128k of memory and is HP DeskJet-compatible. Extra memory and emulation cartridges for Epson LQ850 and IBM Proprinter are available.

The recommended price is £276 but expect to find it much cheaper at most dealers.



SpeedJet 200: Features a long life printhead

Video titles in 24-bit link

MONTAGE 24 is a 24-bit video titling and graphics package just introduced by Innovation Technology, the American makers of Broadcast Title II and Video Effects 3D.

It uses IFF, HAM-8 and Toaster images for backgrounds and logos and can be used to generate colour spreads, bevelled boxes and title patterns.

The program features translucency blending for text and graphics and its eight scalable fonts can be resized by click-and-dragging.

Characters are anti-aliased to whatever background they are put on and effects include variable transparency,

gradient colour fills, embossing and outline and cast shadow features.

Kerning can be done automatically or manually and any combination of fonts, sizes and colours can be used on each line.

Montage 24 works with AGA Amigas and those using Opalvision, GVP's IV24 or a Video Toaster. An optional module allows PostScript and Compugraphics fonts to be imported.

Meridian Software (081-543 3500) and Micro-Pace (0753 551888) are among the companies selling the package in Britain. Price, around £330.

Font editor's features grow

DESKTOP publishers are targeted for an improved version of Soft-Logik's (010 1 314 894 8608) Amiga outline font editor, TypeSmith.

Version two of the program can load, save, edit and generate bitmap screen fonts and for the first time enables users to create them manually or automatically from an existing outline font.

Hints improve the look of fonts at low resolution and at small sizes. TypeSmith loads those created by other programs and will save them without making changes.

It can generate hints for new or modified fonts, and can convert PostScript hints to Intelligent format.

Registered owners of the software will receive upgrade details directly from Soft-Logik but for newcomers it will cost £169.95 from Meridian Distribution (081-543 3500).

The Vidi Amiga Range

For more information refer to advert on outside back cover

Rombo, are proud to announce the launch of their new range of Multimedia Digitisers.

Each digitiser has been designed with total flexibility in mind, by offering a cost effective upgrade path between models. Giving the user complete peace of mind, and the freedom to choose a digitiser for his present requirements. But reassuring him, that if those change, he can move up to the next model. All Vidi Amiga's now have a similar user interface, so moving between products is easy !



£129

£99

These 2 products require a still video source



£199

Real Time 12-bit Image Capture

Vidi Amiga 12

Vidi Amiga (12) RT, offers all the functionality and specification of Vidi (24) RT, but in 12-bit. Capturing 4096 colour images in real-time from any video source. This includes TV, Video Recorder, Video Camera, Satellite etc. etc.

New user interface with powerful image processing and picture manipulation. Support for both composite and SVHS or YC inputs.

Plug-in device with easy install software. Simple enough for the novice yet powerful enough for the professional. Compatible with all Amiga's. Never before has the Amiga market seen such value for money. Manufacturer upgrade available to Vidi Amiga (24) RT POA. Compatible with all AGA resolutions and colour modes.



£299

Real Time 24-bit Image Capture

Vidi Amiga 24

Vidi Amiga (24) RT, will push your Amiga to its limit. Real-time image capture in excess of broadcast quality. True colour, photo realistic picture files grabbed from any video source. Display resolutions up to 1472 x 576, what more can I say !

Vidi Amiga (24) RT offers a breakthrough for all Amiga users, taking them into the world of 24-bit image capture. With no restrictions on video equipment or Amiga hardware.

All the pictures shown on the full page Vidi Amiga (24) RT advert represent the actual printed output quality that can be achieved. Simply by sending the finished image file to a Bureau for output.

Throw away your scanner, its too much like hard work !



Rombo, Baird Rd, Kirkton Campus, Livingston, Scotland.
Tel: 0506 414631 Fax: 0506 414634

Imagine 3.0 was nearing release as this column went to press. The new version of the 3D rendering program, which will be available for both Amigas and MS-DOS machines, has tons of new features.

The new real-time interface makes image composition much easier and more intuitive. A 3D font editor lets you create text within the program, and the new and improved deformation control makes warping text and objects a snap.

The program also sports improved anti-aliasing and full kinematic motion control, which lets you easily create complex, natural motions in your animations.

AGA support is there, of course, and over 100 new textures make for more realistic objects. There's a lot more here as well, and Imagine 3.0 promises to give Real 3D and Lightwave 3.0 a real run for the money. Look for in-depth coverage in an upcoming issue.

For more information on the upgrade, contact Impulse, 8416 Xenex Ave. North, Brooklyn Park, MN 55444; Phone (612) 425-0557; Fax (612) 425-0701.



An illustration created in Imagine 3.0 for the cover of Rodriguez-Sousoun Productions' *Imagine: The Possibilities, Unlocking 3.0 tutorial videotape*



Revised PostScript fonts were imported into Imagine 3.0's Spine Editor to create this picture: the background illustrates the new Gas Giant texture



Imagine 3.0's new particle effect can be used for creating organic effects in animations

Denny Atkin reports on the impressive new features of Music-X 2.0, and rounds up the rest of the news from the States

Music X-Press



Amiga Midi musicians will be happy to hear that Music-X is back on the market, now from HollyWare. The latest update, v2.0, sells for \$199.95. It includes new modules such as DeFlam, Quantizer, RexxEdit for creating customised macros, and PrintEventList.

It now supports more than a dozen additional Midi commands and play sounds using your Amiga's audio capabilities as well as Midi - the Amiga voices are great for percussion effects.

Music-X 2.0 supports Blue Ribbon's One-Stop Music Shop, as well as the Alesis ADAT and AI-2. Upgrades from Music-X 1.0 are \$100.

If you liked the original Music-X but found it difficult to compose music using it, you'll love Notator-X.

This package is a score-writing program that works with Music-X 2.0 and any sequencer that supports the Midi file format. The program uses standard notation and supports notes, chords, rests, dynamics, angled beams, groups, ties, octave symbols, text frames, and more.

You can have up to 32 tracks on 18 staves, as well as five lines of verses with a maximum of three different endings in a score. The Lyrics Editor automatically aligns lyrics under the notes on the staff, including words split up over several notes.

The program costs \$79.95. For more information, contact HollyWare Entertainment, 13464 Washington, Marina Del Rey, CA 90291, or call (310) 822-9200.

Have a Lite

Fascinated by beautiful Vista Pro renderings but upset that the program requires 4Mb of memory? Virtual Reality Laboratories is about to release a version that will work well on a standard A1200 called VistaLite.

The new version does away with some of the fancier features of VistaPro 3.0 and adds virtual memory support. It doesn't support 24-bit pictures, but it does create 256-colour and Ham8 pictures. VistaLite renders pictures up to 640 x 512 in size, and still supports trees, clouds, haze, snow, lakes and rivers. Scripting's still there as well, so you can render frames for animations.

Even without all the bells and whistles of the full-blown program, it's still a heck of a lot of fun to play with. And there are a couple of features that VistaPro doesn't have, such as pre-defined palettes for different season, sunrises, and sunsets.

Price hadn't been set at press-time. Contact Virtual Reality Laboratories, 2341 Ganador Court, San Luis Obispo, CA 93401 for more information, or call (805) 545-8515, or fax (805) 781-2259.

Nothing's Final...

SoftWood is not your typical software company. Standard industry practice is to start advertising - or at least hyping - products many months before they're available. Not SoftWood, though. The company released the new Final Writer word processor before advertisements even hit the US magazines, and only scant days after ads appeared in the UK.

This new word processor resembles Final Copy II, but sports tons of new features. It's more comparable to the expensive professional PC word processors than competing Amiga products.

It borrows the popular button bar concept from Windows programs such as Ami Pro or Word for Windows 6.0. It has 180 different buttons which you can drag and drop onto up to eight strips (you could create one strip for graphics functions, one for text formatting, and so on).

You can not only map built-in Final Writer commands to the buttons, but also AmigaDOS commands, and ARexx commands and scripts. You can even map text strings to them, so you could create a button to automatically insert your name and address in a document.

Final Writer has full support for loading IFF graphics, like Final Copy II, but it also supports Encapsulated PostScript (EPS) outline graphics. Unlike most programs, Final Writer will print EPS

graphics on non-PostScript printers. Graphics, as well as text, can be rotated on the page in one-degree increments.

You can even group graphics - Final Writer crosses the word processor line into desktop publishing territory in many respects.

That's not to say the program skimps on word processing capabilities. Along with all the standard editing capabilities you'd expect, as well as a high-quality spelling checker and thesaurus, Final Writer also sports sophisticated indexing capabilities.

Other professional features include Table of Contents, Endnotes, Bibliography, and Outline generation. You can even create a Table of Illustrations for the graphics used in your document.

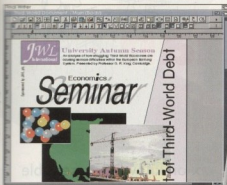
Smart hyphenation makes for professional-looking text, and sectioned documents with multiple master pages makes long-document publication easy on the Amiga for the first time.

If that wasn't enough, Final Writer also includes 120 high-quality PostScript outline fonts (it supports Compugraphic and NimbusQ fonts as well), 100 EPS clip-art images, and 25 ARexx macros.

US upgrade prices are \$55 from Final Copy II Release 2, \$65 from Final Copy II, \$75 from Final Copy, and \$100 from Pen Pal. Contact distributor Gordon Harwood Computers for UK upgrade prices. SoftWood can be reached at PO Box 50178, Phoenix, AZ 85076; phone (602) 431-9151; fax (602) 431-8361.

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

Unless, you buy an expensive PC or Macintosh™,
a high priced Colour PostScript™ Laser Printer,
and a complex, costly Desk Top Publishing Package...



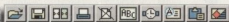
If you're looking for a quality Word Processor/Publisher that performs as well as this, you may well start by searching through FIC and Apple™ Macintosh™ software catalogues.

Even then though, you probably won't find a program that will combine the very best in Word Processing *and...* easy to use integrated DTP type facilities.

You certainly can't find software for your Amiga that's capable of all this...



...or Can You?



When Kenneth Clarke made it clear that this autumn's budget would include the imposition of VAT on magazine, book, and newspaper sales, the publishing business groaned as one. When he later hinted that he wasn't in favour of the eight per cent middle tax rate, the groan became a wail of despair.

It doesn't take a maths professor to work out that 17.5 per cent VAT will hike the cover price of a double disk magazine by 80p, bringing the £5 computer magazine a step closer.

Ordinary single disk magazines, which currently sell for about £3.25, will increase in price to around £3.82, making them almost as expensive as double disk issues are today, and the effects of such swingeing increases could be very damaging to the industry.

The Amiga enthusiast is a voracious reader, and surveys carried out by the major magazines have always confirmed that many of us buy two or three different titles a month.

However, this sort of broad reading habit will cost £1.60 more once VAT descends like a financial demand blanket, and if readers start to restrict themselves to fewer magazines, sales as a whole will feel the squeeze.

Now this could just be the whining of a group of profitable companies who are unwilling to do their bit to dig us out of our "awful hole", to quote one Cabinet minister, but as the Amiga industry as a whole depends on publicity to get the message about new products to the public, falling magazine sales could damage everyone.

In a worst case scenario, one or more of the smaller magazines might even wind up, a danger which particularly threatens the games-only titles. Pressure from consoles and the PC is one thing, but when it is aided and abetted by the Chancellor, things could get sticky.

The last audited circulation figures for the big three magazines – *Amiga Computing*, *CU Amiga*, and *Amiga Format* – showed healthy increases in sales (our own went up by 13%), confirming that the Amiga has made a come back thanks to the competitive price of the A1200 and the continuing high standards in software.

When the market is on such an upswing after a lengthy recession, the prospect of its publicity being restricted by government taxes is an even more alarming one.

Things aren't all black, of course, and we at least don't have a magazine market which depends entirely on low prices for its sales. The PC shopping magazines, some as big as telephone directories, depend on very low cover prices and huge sales to keep readership up and draw in the advertising revenues. If VAT takes the price of such a

The VATman cometh



Whether you call it a tax on knowledge, sensible fiscal policy, or a desperate attempt to retrieve the £50 billion deficit from the man in the street, VAT on magazines is about to happen, and it won't be good news for publishers or their readers

magazine closer to the point where it is no longer a cheap impulse buy or second purchase, it could lose ten per cent of its readership at a stroke, with a subsequent loss in advertising. Everyone will be taxed at the same rate, of course, but the effects will depend upon each magazine's market position.

What is giving everyone in the publishing business a headache at the moment, though, is the fact that no one really knows what will happen next April when the price of the printed word rockets.

You, the reader, will suffer directly by paying more for your magazine, but in the long run a few benefits could come your way. A VAT-induced price rise, if it results in restricted sales, might prompt the major magazines to offer even more generous promotions than before, and we all know what that means. Intense competition in the Amiga

magazine market has led to the free distribution of superb commercial software worth, to date, hundreds of pounds, the cover mounting of useful books, such as seen on last month's *AC*, and a huge increase in the number of competitions, reader offers, and other inducements to part with £4.

Not many readers would complain if this marketing war was to step up a notch and bring even better freebies to the newswriter's shelves.

One definite opportunity next year will be your last chance to beat the tax by taking out a subscription just before the rise comes into force. At a stroke, any regular reader will be able to save 17.5 per cent, and probably a lot more, as we bang our usual subscription offers on top, so keep an eye open if you intend to buy *Amiga Computing* in 1994.

Stevie Kennedy

The AC team

EDITOR Stevie Kennedy
ASSOCIATE EDITOR Paul Austin
ART EDITORS Tyni Lecky
 Terry Thiele
 John Butters
 Phil Mease
NEWS EDITOR Jonathan Maddock
PRODUCTION EDITOR Simon Claps
STAFF WRITERS David Cowick
 Adam Phillips
ADVERTISING MANAGER Simon Lees
AD SALES Jane Norrington
AD PRODUCTION Barbara Newall
MARKETING MANAGER Lucy Oliver
PRODUCTION MANAGER Sandra Childs

SYSTEMS MANAGER David Stewart
CIRCULATION DIRECTOR David Wren

DISTRIBUTION COMAG (0895) 444055

SUBSCRIPTION 051-337 2861

Member of the Audit Bureau of Circulations

ABC 58,305

Jan-June 1993

Published by Europress Enterprise Ltd.

Europa House, Adlington Park,

Macclesfield SK10 0NF

Tel: 0625 878888

Fax: 0625 850652

CHAIRMAN Derek Meakin
MANAGING DIRECTOR Ian Bloomfield

Postcode Hotline
 0625 839764
 Thursday, 2-5pm only

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.

©1993 Europress Enterprise Ltd. 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.

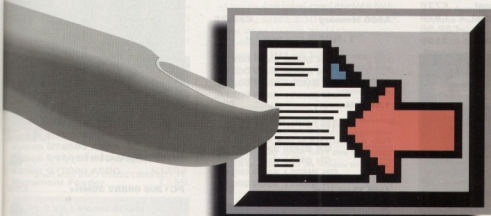
EUROPRESS
 ENTERPRISE

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

Amiga Computing • *Amiga ST User* • *Amiga ST Review* • *PC Today*
Amiga Computing • *GB Action* • *Amiga Action* • *ST Action*
Commodore Focus • *Super Force* • *Hi-Fi News* • *Amiga Force*
 • *Real Influence* • *Super Action* • *PC Home*

Printed in the United Kingdom
 by BPCC Ltd, Carlisle

You Can Now... with New *Final Writer*TM



Put *Your* Finger on the Buttons of the Ultimate Amiga Word Processor



From the publisher of the acclaimed Final Copy II comes its new companion, Final Writer - for the author who needs even more! If you already use an Amiga Word Processor, it won't include the complete and comprehensive array of features found in this latest addition to the SoftWood family.

Can your Word Processor...

Output crisp PostScriptTM font outlines on any graphic printer (not just expensive lasers), and was it supplied with over 110 typefaces? Import, scale, crop, view on screen and output

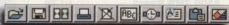
structured EPS clip-art images (Final Writer is supplied with a hundred), again, on any printer? Also create structured graphics and rotate them along with text to any angle, giving you DTP quality presentation? Provide a huge range of printing options (eg. thumbnails, scaling, crop marks etc. on PostScriptTM printers) and fulfil other advanced Word Processing functions easily such as automatic indexing, table of contents, table of illustrations and bibliography generation? With Final Writer, this

is now available to you along with a list of features that just goes on and on. We know that you'll be impressed by this revolution in Amiga Word Processing, but don't be put off by its advanced capabilities. With its complement of user definable Command Buttons and Superb Manual, Final Writer is simply one of the easiest programs to learn and use.



Adobe PostScriptTM
Improve your graphical
imaging technology

SoftWood



Quality software for your Amiga

Final Writer is not just a one-off product...

SoftWood are acknowledged as the World's leading software company publishing for the Amiga and no other system. So, if Final Writer exceeds your current requirements - whatever your Document Processing needs, whatever your Amiga - SoftWood will still have the Perfect Package for you...

Pen Pal or Final Copy II and Proper Grammar II...a Complete Range.

Once you become a registered SoftWood user, you'll gain access to unlimited *free* UK technical support (others often charge you or don't provide support at all) and preferential upgrades to future versions of these and other exciting new products being developed right now.



If you've outgrown your existing package ask about our 'trade up' options from your current Word Processor (other publishers' WPs are eligible too).

SoftWood Products Europe

New Street Alfreton Derbyshire DE55 7BP England
Telephone: 0773 836781 Facsimile: 0773 831040

Available from all good dealers or, contact us for a list of nationwide stockists.
All information correct at time of going to press. E&OE. All trademarks acknowledged. The document on the previous page was output on a low cost Canon Bubble Jet.

Please send me personal copies of the new Final Writer & Final Copy II information pack including samples from previous products, and a list of stockists to: (tick the coupon or call 0773 836781 now!)

Name & Address

Please include your postcode
ACO



poweroptical

128MB Optical Internal	£779
128MB Optical External	£879
128MB Optical Disk	£39.95
SCSI Controller A2000	£129

video backup



Use a VCR as a backup storage device, 200 Amiga floppy disks fit on to a 4hr tape which can be used for an alternative hard disk backup system. What's more you can watch T.V on your 1084s monitor.

£60

floptical drive

The Floptical stores 20MB of data on a 3.5" disk (a SCSI interface is required).

Floptical A2000 Kit	£289
Floptical A500 External	£389

syquest drive

3.5" Removable HD from Syquest. Each cartridge stores 105MB.

3.5" Syquest 17ms	£739
3.5" 105MB Cartridge	£79

scsi drives

We can supply SCSI or IDE 3.5" drives in many sizes.

52QMB	£169
80MB	£179
160MB	£249
200MB	£349

ide internal

2.5" Miniature internal HD for the A600/A1200, (these drives come complete with a cable and installation software)

60MB Internal HD	£139
80MB Internal HD	£179
120MB Internal HD	£229

icd products

Trifecta 2000 LX Bare	£139
Trifecta 2000 LX 80MB HD	£239
Trifecta 2000 LX 160MB HD	£329
Trifecta 2000 LX 200MB HD	£399
Trifecta 500 LX Bare	£195
Trifecta 500 LX 80MB HD	£295
Trifecta 500 LX 160MB HD	£359
Trifecta 500 LX 200MB HD	£459

a600 memory

1MB RAM with battery backed clock.

A600 Memory	£39.95
--------------------------	---------------

1.5MB memory

Fully supports 1MB of chip RAM and compatible with Fatter Agnus. (Requires Kickstart 1.3 and above, not compatible with A500+. Your Amiga needs to be opened, this may effect your warranty)

1.5MB Memory	£85
---------------------------	------------

1MB thru' port

Fully supports 1MB of chip RAM and fully compatible with Fatter Agnus. (Requires Kickstart 1.3 and above, not compatible with A500+. Your Amiga needs to be opened, this may effect your warranty)

1MB Thru' port	£49
-----------------------------	------------

PC501+card



High quality memory card comes with 1MB of RAM on-board to expand your Amiga A500+ to 2MB of Chip RAM. (Fits in the trap-door, does not affect your warranty)

£36

a500 memory

4 Chip 512K RAM expansion with or without battery backed clock. Free software included. (A500+ compatible)

A500 Card with clock	£29
A500 Card without clock	£24

a500 8mb board

Expand your Amiga from 2MB to 8MB of RAM. Plugs into side slot, full auto config, and full through port.

A500 2MB Board	£139
A500 4MB Board	£219
A500 8MB Board	£299

a2000 8mb board

2MB to 8MB expansion for the A2000. Full auto config, IDE interface and 12 months warranty

A2000 2MB Board	£139
A2000 4MB Board	£199
A2000 8MB Board	£289

new 2MB chip ram



Increase your Amiga's memory to 2MB of chip RAM, including 2MB 8375 Agnus, easy to fit (internal fitting), unlike every other 2MB chip RAM board currently available you A500 trap memory still works! fully compatible.

£159

special offer

PC1208 68882-20MHz OMB RAM board.

PC1208 68882 20MHz	£95
---------------------------------	------------

powerdrives

All Power Computing's disk drives come with a 12 month guarantee. The PC880B is available with Blitz Amiga, Blitz and X-Copy or Cyclone compatible (this drive is only available to registered owners of X-Copy Professional). The drive comes in a choice of two colours, black and cream.

PC880B with Blitz Amiga	£60
PC880B with Blitz, X-Copy	£75
PC880B with black case (CDTV)	£60
PC880E Economy Cyclone Comp.	£49.95
PC881 Amiga 500 internal drive	£40
PC882 Amiga 2000 internal drive	£40
PC883 Dual disk drive	£125

PC880B drive



The award winning external disk drive which includes Anti-click (cures that annoying click), Virus blocker (prevents viruses) and built-in backup hardware. Now available with Cyclone compatible chip.

£60



x-backup pro

Extremely powerful disk back-up utility, uses the latest custom chip design. Hardware designed by Power Computing.

X-Backup Pro	£29.95
---------------------------	---------------

A600/A1200 Colour Scanner available soon

power computing ltd

telephone 0234 843388
facsimile 0234 840234
technical 0234 841882
(technical is available from 2.5.30pm)

epson GT-6500

A high resolution 24-bit colour flatbed scanner from Epson. Scan up to A4 in size on this 600DPI scanner. Comes with PowerScan or ASDG (ASDG is an extra £99). GT-8000 scans up to 800DPI.



Epson GT6500 PowerScan £699
Epson GT6500 ASDG £798
Epson GT8000 PowerScan £1199
Epson GT8000 ASDG £1298
Document Feeder £399



Completely re-designed powerful user interface, produce 256 greyscale images (on a VGA 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, available with mono or colour scanner.

£119

power scanners

PowerScanner 4 (mono) £119
PowerScanner 4 (colour) £239
PowerScanner 4 inc. OCR £159
PowerScanner 3 £99
Scanner 4 Upgrade inc. interface £50
Scanner 4 Upgrade software £20
OCR Junior Software £49
OCR Full Version Upgrade £49
(OCR full version is only available to registered users of OCR Junior)

autorom sharer

ROM Share £19.95
ROM Share inc. v2.04 £50
ROM Share inc. v1.3 £39
ROM Share A600 £29
ROM Share A600 v1.3 £55

home music kit

900KHz sampling rate, dynamic filtering, anti-aliasing filter, over 32 special effects and many more
Home Music Kit £29.95
Midi Interface £15.95

amiga 1200

A1200 Power Pack including PC1208 2MB including 68882 20MHz co-processor, 2 games (Nigel Mansells 'World Championship' & 'Trolls')

A1200 Pack 60MB HD £599
A1200 Pack 80MB HD £629
A1200 Pack 120MB HD £679
A1200 Pack 170MB HD £749

A1200 Power Pack, same as above but including 4MB PC1208 with 68882 20MHz co-processor

A1200 Pack 60MB HD £699
A1200 Pack 80MB HD £729
A1200 Pack 120MB HD £789
A1200 Pack 170MB HD £849

For Desktop Dynamite add £60

amiga 4000

A4000 040 330MB HD 4MB £2229
A4000 030 330MB HD 4MB £1399

Both systems come with 2MB of chip RAM

colour monitors

Commodore 1084st £179.99
Commodore 1942 £399.99
Commodore 1940 £299.99
Multi-sync monitors are available EPOA

printer range

Huge range of printers available, Star, Citizen, Hewlett Packard and Epson. Please telephone for prices and your requirements.

chips & spares

Power Computing can supply a huge range of chips and spares, including RAMs for the Amiga, hard drives, power supply, cables etc.

supra modems

Supra Modems come complete with English phone cable, RS232 serial cable, heavy duty PSU and comms software, send and receive fax's, 100% compatible with industry standard 'AT' command codes, free trial offer to various services and V42 bis data compression.

Supra Fax Modem+ £119
Supra Fax Modem 32BIS £229

electric fingers club

The Power BBS is a bulletin board service. Phone 0234 841503. Speeds up to 16.8K. This service is available 24 hours a day, and its free!

pro software

Home Accounts 2 £39
Deluxe Paint 4 £74
Morph Plus £149
Real 3D Classic £79
Real 3D v2 £380
SBase Personal 4 £119
SBase Professional 4 £225
Art Expressions £149
ProDraw v3 £69
Art Department Pro v2.3 £149
Art Dept. Pro conversion £59
Vista Pro v3 £49
Makepath (Vista) £25
Terraform (Vista) £25
Amos Pro £35
Amos Pro Compiler £25
Lattice C v6+ £279
Bars & Pipes Pro v2 £265
Superjam v1.1 £95
Brilliance £152
Directory Opus £49
Scala 500 £79
Scala Professional £185
Video Director £119
Final Copy II £80
TurboPrint Pro £39

miscellaneous products

PowerMouse £15
Optical Mouse £29.95
Replacement Optical Mat £10
100 Branded Disks + Box £70
10 Branded Disks £4.99
A1200 Dustcover £5
Intruder 1 Joystick £29.99
Maverick 1 Joystick £15.99
Python 1 Joystick £9.99
Apache 1 Joystick £7.99

order form



Return this order form to: Power Computing Ltd, Unit 10, Broomfield Road, Epsom, Surrey, Middlesex TW20 7TN

Name _____

Address _____

Telephone No. _____

Description _____

Quantity _____

Unit Price _____

Total _____

Signature _____

Expiry date _____

Make cheque payable to Power Computing Ltd

System owned _____

delivery next day £5.00 2-3 days £2.50 Saturday £10.00
delivered are subject to stock availability



Create your own
cartoons and
digitised
extravaganzas
with Rombo's Take
2 animation editor

Take 2 is a combination of what is known as a "line tester" and an animation editor, and is designed to be used in conjunction with a paint package such as DPaint or the Vidi Amiga digitiser.

For all those millions of Amiga owners who have a copy of DPaint and the thousands who took advantage of our Vidi Amiga offer earlier this year, Take 2 is the icing on the animation cake.

The program will either control Vidi Amiga directly allowing users to grab video or hand drawn images straight into its frame bank, or accept a series of frames from an animation package such as DPaint, then give the user total control over the finished cartoon or movie.

Start by booting from the Take 2 CoverDisk (de-archiving won't work if you boot from another disk), then double click on the two icons it contains.

This will start a de-archiving process



which will create two disks, one containing the Take 2 program, the other crammed with sound effects for use in animations.

Once Take 2 has de-archived, re-boot with the newly created disk and double click on the Take 2 program icon. When the program loads you will be looking at a blank screen made up of five main columns, one for the soundtrack and one each for the four levels of animation

the SK DISK SK Sound

Take 2 will control.

This screen is the exposure sheet, or XSheet, and is the central control room for all Take 2 functions. With four levels of animation, the user has huge flexibility. For example, a DPaint animation

involving a couple of cartoon characters running around against a backdrop, such as Tom and Jerry chasing each other around a kitchen, involves the user in drawing all elements - Tom, Jerry, and the kitchen - into each frame.

Fusion Paint

Fusion Paint is a simple paint package lacking some of the advanced features found in DPaint, but it has a couple of very useful advantages. First of all it is faster than DPaint for many operations, and secondly it can be used to edit or create icon images.

As usual, Fusion Paint is archived on disk, so boot from the Fusion Paint CoverDisk and double click on the Make Fusion icon. The de-archiving process will format a blank disk and unpack the Fusion archive onto it, and once it's finished you should boot from the new disk.

The first thing you'll see on starting Fusion Paint is a screen format requester which offers a variety of screen sizes and number of colours for your new drawing. Choose one from the buttons on display or type a screen size into the string gadgets below, then click on start.

A blank screen will appear with the usual tool box down the right hand side. Most of the tools shown should be familiar as they are similar to the tools found in any other paint package. One major difference, however, is that when some of the tools are clicked on, a number of optional tools appear in the area below the main tool box.

Experiment with Fusion's drawing tools for a while. We won't be covering these in detail as they should be self-explanatory.

Let's concentrate instead on exploring Fusion's icon features. Hold down the right mouse button and choose the Open... icon option from the Project menu.

Click once on the screen to load Fusion where to place the



The Fusion disk contains some great fonts

icon, then a file requester will appear. Now choose the Fusion Paint program file as your icon and load it up.

The icon will appear as two images, one which is displayed when the icon is first displayed, and one which is displayed when the icon is clicked on. This second image is known as the alternate image and should always be the right half of an icon image.

It is possible to load or save single icon images, and these are known as back-fill complement icons. This means that when clicked on the image simply fills in with another colour or changes to the complement colour depending on

whether there is an outline around the image or not.

For now we'll stick to alternate icons as they are more fun, and create a little man who waves his hand when the icon is clicked. We'll need to draw a cartoon picture, so the artistically challenged should either leave the room or make sure no-one can come in half way through the tutorial.

Right, draw a head and shoulders picture of a person with upraised arm and a big cheesy grin. Fusion's freehand drawing tool should be all that's needed for this, though the circle tool could come in handy for the eyes and the zoom lens will be handy for small details.

Once this image is finished, click on the cut brush tool (it has a pair of scissors on it) and cut around the little man. A cut window will appear in the top left-hand corner showing our brush, and if it meets with your approval, click on the Paste tool (it has a big brush on it).

OUTLINES

Now paste the brush one pixel to the right of the original, taking care to make sure that the outlines of the two images touch but don't overlap.

We now have two identical images and if we saved the icon immediately it would appear that nothing happened when the icon was clicked on, so we have to make changes to the alternate (right-hand) image.

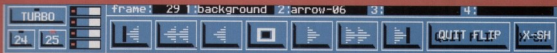
Try changing the position of the arm or the facial expression until something approaching a reaction can be seen from one image to the next. So long as there's enough difference between the two images we'll know we've clicked on the icon, so feel free to indulge yourself. The zoom lens (magnifying glass tool) is particularly useful for this sort of detail work. When the alternate image has been edited to



Load pictures for the frames in the animation...



...then place the samples at the right point in the action



Standard vision

Using Take 2, the user can create the two animated characters and load them as levels one and two, then the kitchen backdrop and load it as level three. When Take 2 plays the animation back to the user, the three levels are superimposed on each other and a frame made up from all four levels.

Levels can thus be edited separately from each other without the hassle of having to re-draw an entire frame, such as would be the case in any other animation package.

Remember - Take 2 is not an animation creation program, but an animation controller and editor.

To demonstrate the program in action, the Take 2 disk contains a simple two-level animation called "arrowhit"

which we will now load. Hold down the right mouse button to reveal the menu bar, and choose the XSheet menu. There is a load option with three sub-items to enable the loading of tracks, an

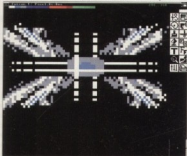
your taste choose the Save As... Alt icon option from the Project menu. To save the icon we must tell Fusion where it is, so we must now draw a box around our waving man.

Make sure that the box is tight around both images with no space to spare, then click the left mouse button, at which point a file requester will appear.

There's no need to save your icon with the usual .info extension, as Fusion saves the image as an IFF brush and that brush as an icon for itself. If you save to the RAM disk, go back to Workbench for a quick look at your finished icon.

Another of Fusion's more advanced features is its use of text and fonts, and there are several superb fonts on the Fusion Paint CoverDisk. First, let's select a font by clicking on the Font gadget, which is denoted by two Fs.

Fusion will search the current fonts directory, which



Using Fusion's zoom feature on an icon

should be its own if you have booted from the Fusion disk, then present you with a list of those it has found. For now, choose the Camelot font and click on the disk icon in the lower right-hand corner of the tool box to load the font from disk.

Now that we have a font, click on the text tool (it has a large T on it) and you should see a string gadget appear on screen.

Type whatever text you require in here and press Return. The text should appear on-screen and you can position it anywhere by clicking at the desired position or dragging it around with the left mouse button.

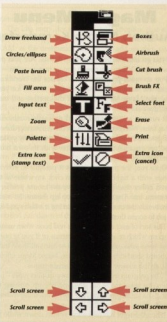
Once satisfied with the positioning, click on the checkmark box in the lower right of the screen to fix the text in place, at which point you should notice the next line of text is waiting below the first, neatly justified.

Fusion's third special talent is its ability to grab screens from any other package currently running. To do this, simply select the grab screen option from the main menu bar and confirm that you would like to proceed. Fusion will then wait ten seconds and grab whichever screen is presently being displayed.

All the user need do is set the grabbing process going, then flip to the screen to be grabbed using left Amiga-N or M and wait for two yellow flashes.

The first warns you that grabbing is about to take place, the second that it has finished, and when you flip back to Fusion, the screen should be loaded up ready for editing.

That's about all we have space for in these pages, but the remainder of Fusion's features need little introduction. The program works in much the same way as DPaint and other paint packages, and if you have any real difficulties, there's a generous manual offer on a page not a million miles from here...





XSheet, or a complete scene, so select the scene option.

When the file requester appears, go into the Take 2 disk directory and click once on the arrowhit directory to highlight it, then click on Load. Take 2 will scan the directory for scene information and any images the scene contains, then load the whole lot into memory.

The file requester stays on-screen in case the user wishes to load more than one set of files, so click on Cancel once disk access is complete and take a look at our new XSheet. Levels one and two

now show the images used in each frame of the animation, and the soundtrack column is blank.

This tells us that there is a backdrop image called "background" and a second level containing no images until frame 13, then a series of files from an animation. We need to take a look at what we've loaded, so click on the Flipper button at the bottom of your screen.

What you should see is a simple black and white animation of an arrow hitting a tree, and the action will loop until you hit the right mouse button. Do this now and examine the Flipper control panel which appears over the animation.

CARTOON

All controls function in the same way as their VCR equivalents, so users should be able to zip back and forward through the cartoon with little difficulty.

Above the VCR controls there is a number of information fields showing which frame of the animation we are currently on and which images are being shown in the different levels. We can use this information to decide exactly when the arrow hits the tree, at which point we'll add a sound effect.

Click on the single forward arrow to advance the animation one frame at a time until we get to frame 16. This is the point at which the arrow first hits the tree, so now we know where to start playing the sound effect.

Now click on Quit Flip to go back to the XSheet, hold down the right mouse button, and select Sample Panel from



You can load two samples at once

the Panels menu. A blank panel will appear which shows no files until we load one, so make sure that the window is active by clicking on the Samples title bar, then hold down that right button again.

A single menu appears enabling you to load, save, or delete samples, so select load 8SVX (the Amiga's standard IFF sound sample format) and make sure the sounds disk we de-archived is in a spare floppy drive. If you have only one drive, swap disks before selecting load.

Choose the Sounds disk from the file requester, then the Effects drawer. A number of special effects samples should be on show, but we only need two — one for the arrow being fired, the other as it hits the tree.

Click once on the jump and spring samples to highlight them, then on load to add them to the samples list, and finally on Cancel to get rid of the requester.

Adding the effects to the animation is simply a matter of clicking on the sample from the list shown in our sample

panel (there should only be two), then on the leftward pointing arrow on the right-hand side of the window.

The mouse pointer should now turn to a "To" and we can add the sample by clicking in the soundtrack column next to the frame at which the effect starts to play.

Follow this process to add the spring sample to the soundtrack at frame 16, then go back to flipper and watch the animation again. Sounds better, doesn't it? Now do we do with the jump sample?

You'll notice by looking at the soundtrack that each sample lasts for several frames, and if we try to put the next sample at, say, frame ten, the spring sample will be moved down to accommodate it, moving it out of time with the visual event of the arrow hitting the tree.

GADGETS

At the top of the sample panel window there are four gadgets which represent the four soundtracks you can have in any Take 2 animation. There's only enough room on the XSheet window to show one soundtrack column, but if we click on the second gadget along, notice that the title at the top of the soundtrack column changes to soundtrack2 and we have a blank column in which to insert the second sample.

Easy, eh? Now insert the jump sample anywhere before frame 13, which is where the arrow first appears, then go back to flipper for another look.

We now have a much more attractive animation, but the two samples might

Magic Menu

Author: Martin Korndorfer

Do you get into a dither about drop downs? Are your pull downs a pain? Then you need a pop up menu system.

Pop up menu programs which replace the Workbench menus are nothing new and have been around for years now, but Magic Menu is one of the neatest and most attractive yet.

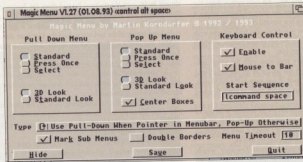
It runs as a Workbench 2 and upwards commodity either from Workbench or through the WBSStartup drawer, and patches Intuition to replace the menus of any system-level program launched thereafter with its own much more glitzy offerings.

Once run, the program makes it possible to activate menus with a right mouse click anywhere in the screen rather than having to move the mouse pointer to the menu bar. The menus will pop up (hence the name) right beside the mouse pointer, making it a faster and easier job to access them.

This sort of easy access can be a real boon when using a program which relies heavily on menus or if you're one of those users who can't be bothered to learn all those tricky keyboard short-cuts. For such users, Magic Menu offers a neat, stylish answer to all drop down dilemmas.

The program treats menus as two distinct types — pull down (the usual menu bar jobs) and pop up, offering the user a chance to configure how they work independently of each other.

When the right mouse button is held down while the pointer is in the menu bar, drop downs of the traditional



The best pop-up menu system for the Amiga

sort are the result, but when held down anywhere else in the screen, pop ups appear. In this way, users can have their cake and eat it — pop ups for when they're feeling bodacious, drop downs for those "back to menu" days.

There are three ways in which either type of menu can work — Standard, Press Once, and Select. Standard is the usual way of holding the right mouse button down all the time the menu is visible, then releasing it when the desired option is highlighted, but the other two need *operands* are just a teensy bit radical.

Press Once is a method whereby the right mouse button activates the menu, which will then stay on-screen after the button is released.

As the pointer is moved, options are highlighted as if the button was still depressed, and the user just taps the right squaker once more to make his or her selection. This

is a good method for those with lazy fingers and long menus through which to browse.

Select is a little weird and works somewhat like a PC menu in that the right mouse button calls the menu to the screen, then the left button is used to click on the options and sub-items. Not very trad, but good soul food for those who use PCs at the office and need some serious menu bashing after a hard day's work.

To top of the bill of fare (pun definitely intended), Magic Menu gives one the option to control menus through the keyboard. Yes! Now you're not hating on the little beasties for ever and just tap Left-Alt and Left-Alt at the same time to open the menus, then use the cursor keys to navigate around them. A job at the Return key sets your choice in motion, and you can go back with a sigh and a well-deserved cigarette.

CoverDisk Hotline

Amiga Computing operate a CoverDisk hotline on 0625 839766 to help anyone experiencing problems. It is ONLY available on Thursdays between 2-3pm so please do not try to call us at any other time as you won't get an answer.

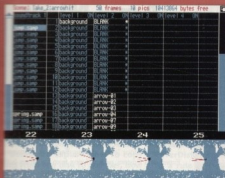
Faulty CoverDisk?

If you subscribe to Amiga Computing and your disk does not work, please return it to:

Amiga CoverDisk
Europrint Direct
FREEPOST
Elesmere Park
L65 3ED

If you bought your copy from a newsgroup and find that your CoverDisk is faulty, please return it to:

Pro-Soft
5 River Gardens,
Business Centre,
Spar Road, Feltham
TW14 0SN



Users can use the frame board to flip through animations

overlap by too much, or not enough, or you might decide that timing could be better.

Quit out of flipper and practice moving the samples around by clicking with the left button on the sample's highlighted first frame, then holding the mouse button down and dragging the sample up and down the soundtrack. A bit of experimenting should see our samples safely in the correct place.

Of course, you might try a couple of samples in a search for the best effect, and in this case, removing unwanted samples is easy. Just click on the sample's first highlighted frame on the soundtrack, then on the rightward pointing arrow on the sample panel.

To check a sample before inserting it in the soundtrack, highlight it by clicking on its name in the sample list, then click on the gadget at the top

right corner of the sample panel.

We'll now take a quick look at creating a scene from scratch. If you like, you can save the current scene complete with sound sample information using the Save... Scene option from the XSheet menu.

Now choose New... Scene to clear the decks, then go to the panels menu and activate the pictures panel. Once the pictures panel appears, hold down the right mouse button and select load...ILBM.

When the file requester appears, choose the pics directory from the Take 2 disk and click with the left mouse button on m1, dragging it down to highlight all eight picture files.

Click on Load, then the Cancel button and we should be back at the pictures panel. To insert the images, click on the film strip gadget in the bottom

right of the window to select all files, then on the black box with a white outline, which tells Take 2 to paste the pictures to the currently active level.

We can now see the animation by using flipper again, and add an effect or two. If you have a footstep sample, perhaps on hard drive or among your sample library, this might be a good time to use it.

Adding a second level is easy. Load DPaint and draw a simple road graphic which rolls into the background over an eight frame loop, stick a bush or lamp post in to give the illusion of movement, then save the eight frames in a directory on disk.

Make sure that the background is the same resolution as our example piccies (to-res 320 x 256) as Take 2 won't mix pictures of different resolutions.

COLOURS

This applies to colours as well, so you'll have to ensure that the road is a simple black-and-white test image. Take 2 is a line tester, as we've already mentioned, and is designed to help you try different animation ideas, then test them at the line drawing stage.

Levels show through each other as greyscale images, successive levels laying down on top of each other, so the furthest away level, or backdrop, should normally be in level one.

In next month's Amiga Computing we'll be looking at some of the more advanced uses of Take 2, so don't miss it. And why not check out our manual offer and buy a complete Take 2 manual and tutorial for next to nothing?

DSound 130

Author: Dave Schreiber

DSound is a simple utility which enables the playing of long samples direct from disk, hard or floppy, thus saving copies of precious chip memory. It works from CLI only, and if you want to give it a go, type:

```
CD 512:00000130
DSOUND CREATER
```

If you didn't boot from the CoverDisk, go immediately to jail, do not pass Go or collect £200, and make sure to replace SYS with the drive number in which the CoverDisk has been placed.

As the on-disk documentation points out, there are a number of parameters attached to this command. There are flags to play the sample through left or right speakers, set the volume, force the sample to loop, and lots of other handy stuff like that. Stop being lazy and gently peruse the documents if you don't believe me.

As a quick try-before-you-bother-to-read, how about:

```
DSOUND -2 -V15 -4 CREATER
```

This will loop the sample over and over again with the dulcet volume of only 15 from a possible 64 and won't display the DSound window, which is one good way to drive a friend or relative barking mad as they try to figure out how to stop the noise without rebooting. Ctrl-C will do the trick, just in case you're interested.

DropBox

Author: Steve Anichini

Yet another commodity program for Workbench 2 and above, DropBox is designed to take the drudge out of those boring household chores you have to do to time and time again. You know - washing the dishes, de-archiving things, and the like.

By simply telling DropBox that any time a file is passed to it which has the suffix .lha (to take only one example), the faithful little chap can be programmed to carry out an automatic command, such as de-archiving the file and placing the contents in RAM, thus saving you a lot of that opening Shell and typing in the command sort of malarkey.

When run, DropBox leaves an icon on Workbench onto which any icon or file can be dropped (DropBox, geddit?). The hapless file will be ruthlessly rushed to the program, thoroughly interrogated, and dealt with contemptuously. Sort of a Workbench friendly neighbourhood Bulby, when you think about it.

For a demonstration, run the program then double click on the DropBox left out on your Workbench screen. This will bring up an interface with a list of presets on the right and a number of options on the left.

To begin with, the program looks in ENV: for its presets, but for the purposes of the CoverDisk we've had to put them in the DropBox drawer, so hold down the right mouse button and select open from the project

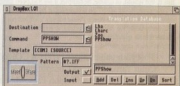
menu. Load DropBox's prefs file and check it out.

The Lha entry, for example, tells DropBox that any file with the appendix .lha should be dearchived with RAM: as the destination drawer. To add another, click on the Add button and type PPSHOW in the string gadget.

We don't have to bother about a destination as we know PPSHOW will send its results to the screen as a picture, so type PPSHOW in the command gadget to tell old thickie which C command to invoke, then type [COM] [SOURCE] in the template string.

DropBox always needs this basic template to tell it to carry out the specified command on the source, or file which had been dropped onto it. Finally, use the pattern #7:ff and click on the output button. The program is now set up to use PPSHOW on any file with the suffix .lha.

There are a thousand uses for this program, from viewing piccies and text, to launching AREXX macros, but you'll have to read the on-disk docs for a more detailed run down of the possibilities.





Mousometer

Authors: W Breyha
and M Matzi

A neat little Workbench hack, this program is designed to provide what must be one of the most pointless computer statistics of all time - the distance your mouse has travelled in kilometres.

Just run the program and watch the window in the top right-hand corner of the screen as your mouse is moved, drool as those metres mount up, then swagger off down the pub to lean nonchalantly on the bar boasting about how you ran that rodent ragged.

There's a high score table to keep track of those marathon mouse marches, and the About function which you can access from a menu tells you how many miles you have travelled, what this is as a fraction of the earth's circumference, and your average speed in metres per hour. All totally withstand, as I'm sure you'll agree.

Army Miner

Author: Alain Lafferiere

Minesweeper is a game which has had many followers and many clones, but they all follow the same format. A grid of squares is littered with mines and you have to proceed to uncover all the safe squares by the use of your tired noggin.

If an uncovered square has mines in any of the adjacent squares, it will show a number to tell you how many there are, and by working out the most probable free squares, you gingerly tap with the left mouse button until you feel the board, or, as is more often the case, step on the wrong square and meet your bum on the way back down.

There are four levels of play: Beginner, Advanced, Expert, and Custom, each differing from the others in the size of grid to be cleared and the percentage of bombs on the grid.

An Undo button is available if you think you deserve another chance, and the game can be paused if you're playing against the clock and want to chat, but otherwise this is just a very nicely presented version of an old favourite which, if you're an old fan of Danger UXB, you'll enjoy immensely.

Error

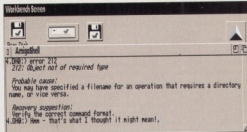
Author:
Njal Fisketjorn

How many times have you wondered why the Amiga is so coy about its errors? I mean, error 212 can mean anything, can't it? This program is designed to help with most common AmigaDOS errors by supplying a much more comprehensive idea of what went wrong.

If, for example, you get 'Error 205 - File not found', you simply open CLI and type:

```
Error 205
```

Error will then tell you that you've



Take the worry out of error messages

either got a device and a file mixed up or that you've typed a file name wrong, and suggest you check which directory you are in a try again. The program isn't an

AmigaDOS reference manual, but it could help cut down the confusion at those critical moments when you're tempted to shove the Amiga's keyboard up the dog's backside.

Move

Author: Kai Iske

Workbench has always had a few missing bits here and there, but the one command Commodore have always left out for no apparent reason is a move command.

The author of this program got a little steamed up about it, and faced with the choice of either punching out every Commodore employee he could lay his hands on, or writing a move command of his own, he wisely chose the latter course. Move is a simple CLI command which does a simple job, but it does something that AmigaDOS normally makes a complete pain in the dangly bits. Use it with the simple parameter information found on the disk and you should have few problems.

For example, moving the move command from disk to your C: directory is a simple matter of typing:

```
MOVE MOVE TO C:
```

and there's no faffing around with copy, delete, or rename. Neat, eh?

Think you can do better?

Want to be famous? We are always on the look-out for quality Amiga programs for the CoverDisk. If you think you have written something good enough for others to share and enjoy, please send it in and we'll have a look.

The Amiga Computing CoverDisk is used by thousands of Amiga owners every month in places all over the world from New Zealand to the USA, so if your submission finds its way onto the disk, you could be famous.

Please make sure that you list ALL library and other files necessary for the program to work. Feel free to design your own icons for programs that run from Workbench, but please don't make them too big.

If you ensure your program is as compatible as possible with a wide variety of Amigas, it will also stand a better chance of publication. We are especially interested in small programs whether they be games, utilities or whatever.

We are prepared to pay our current rates for original work which has not been distributed in any other way and which has not been put in the public domain.

If you wish your program to be released as shareware or freeware we will be happy to publish it, but would, of course, be happier if we had been given it first!

Your submission MUST be accompanied by the submissions form, a copy of it, or a signed declaration to the same effect. Please supply your full name, address and phone number.

Unfortunately we cannot undertake to return disks sent to us as the volume of submissions makes this an impractical exercise.

Post your submissions WITH A COPY OF THIS FORM to:
Colin Yarnall, Amiga Computing, CoverDisk Submissions,
Europa House, Adlington Park, Macclesfield SK10 4NP.

Name Age

Address

Daytime phone Evening phone

Submission name Submission size

Type of program: ☐ Game ☐ Utility ☐ Other

You must sign this declaration:

The material on this disk is mine. I didn't steal it from someone else. It hasn't been published before and I haven't submitted it elsewhere because I want Amiga Computing to publish it. I understand that by submitting my work to Amiga Computing, and signing the declaration, I am giving full copyright control to Europress Enterprise Ltd.

I understand that if my submission is bought by Amiga Computing I will be paid the current applicable rate. I know what copyright means and I will be responsible for any possible litigation arising by breach of it by Europress Publications Ltd as a result of using my submission.

Signed Date

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!

GETTING



STARTED

New readers may have difficulties using our CoverDisk, so we have included this page to help you out.

Below we explain how to copy files from one disk to another, how to copy the entire CoverDisk and how to de-archive programs. None

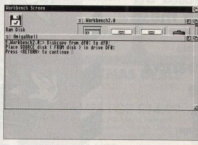
of the first things you must do when get your CoverDisk is make a backup copy, then put the original CoverDisk away for safe keeping. As a rule you should also do this with the majority of your software collection.

How to make a backup

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

```
DISKCOPY FROM DFD: TO DFD:
```

When prompted, put your CoverDisk (the source disk) in dF0: and be ready to replace it with your blank disk (the destination disk). Follow the Amiga's on-screen prompts until the disk copy is completed. Now put the original away in a safe place and use your backup.



Copying individual files

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

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

```
COPY [directory] TO [newdisk] ALL
```

where [directory] is the full pathname of the directory you wish to copy, and [newdisk] is the name of the disk and directory into which it will be copied.

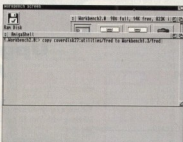
For example, if you wanted to copy a utility called FRED from CoverDisk 27's UTILITIES drawer to a directory called FRED on your Workbench disk, you'd type:

```
COPY COVERDISK27/UTILITIES/FRED TO WORKBENCH3/FRED ALL
```

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

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

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



So if you have copied a program from the CoverDisk to your Work disk or hard drive make sure you also copy any other files the program requires, ie fonts, libraries, device drivers and Commands.

De-archiving

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

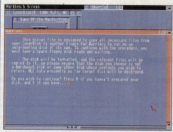
De-archiving programs which are on the CoverDisk is a very simple task. If a program has been archived then you will need a blank disk to dearchive it onto.

Say we have archived a program called FRED. You simply double click on FRED's icon, and will be asked if you have a blank disk ready to dearchive to. Type "y" or "n" accordingly.

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

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

Note that if you have a Workbench 2 or upward machine you must boot with the CoverDisk write-enabled to perform the dearchiving process.



Workbench 3

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

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



3.00 ROM 29.186
Copyright © 1985-1992
Commodore-Amiga, Inc.
All Rights Reserved.



Take 2 — and two more!

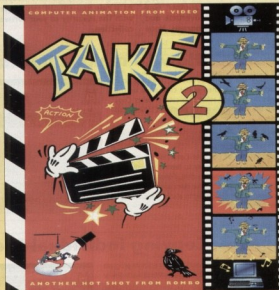
You already have the very latest Take 2 software – on this month's Amiga Computing CoverDisk. Now you build on this super program with these two special offers

Manual, pegboard and sample animations

Only £24.99 (including UK carriage)

Get up and running quickly with this comprehensive, well written manual which takes you through every feature of this great program. There's an invaluable getting started section as well as full info on the more advanced features.

This offer also includes a pegboard – to help keep all the cells to be digitised in the correct place – as well as sample animations demonstrating what you'll have the potential to produce.



Upgrade to Vidi Amiga 12

Only £74 (including UK carriage)

Become a movie director with Vidi Amiga 12 and grab your way into video animation. Working with Vidi 12 you can interface Take 2 direct to any video source, camera or recorder.

Using a camera means there is no need to be a computer artist – you just trace with a pen then digitise the outlines from paper, it's much easier!

Live video and sampled sound can be synchronised for the most amazing results. Not surprisingly Vidi Amiga 12 is used by hundreds of professional animators including Rolf Harris, and this bargain saves you £30 on the normal price.

"It's fast, smooth and produces outstanding picture quality with ease"

Amiga Computing, May 1993

For more information on Take Two or Vidi Amiga 12 call Rombo Productions on 0506 414631

Send to Amiga Computing Take 2 Offers, Europress Enterprise, Europa House, Adlington Park, Macclesfield, SK10 4NP, or if you are paying by credit card you can telephone 0625 878886. Allow 28 days for delivery.

Overseas readers will be charged carriage at cost. Please call Rombo on 44-506 414631 to find out the cost of carriage to your country.

Please send me...

- ☐ Take 2 Manual, pegboard and sample animations at £24.99 (UK)
☐ Vidi Amiga 12 at £74 (UK)

Please deliver my goods to...

Name _____

Address _____

Postcode _____ Daytime telephone _____

I wish to pay by...

- ☐ Cheque/Postal Order payable to Rombo Productions Ltd
☐ Credit Card

Card No.

Expiry Date

☐ Tick this box if you do not wish to receive promotional material from other companies



SPECIAL XMAS DEALS!!

LOWEST PRICES

BEST SERVICE

RAPID DELIVERY



GREY-TRONICS LTD

SALES HELPLINE 081 686 9973 / 081 781 1551

DISKS DISKS DISKS

100% CERTIFIED ERROR FREE

50 3.5" DS/DD	£22.99	+ 100 cap lockable box	£25.99
100 3.5" DS/DD	£36.99	+ 100 cap lockable box	£39.99
150 3.5" DS/DD	£55.99	+ 100 cap lockable box	£58.99
200 3.5" DS/DD	£69.99	+ 2X 100	£75.99
300 3.5" DS/DD	£104.99	+ 3X 100	£112.99
400 3.5" DS/DD	£139.99	+ 4X 100	£147.99
500 3.5" DS/DD	£169.99	+ 5X 100	£182.99
1000 3.5" DS/DD	CALL	+ 10X 100	BEST PRICE

FREE LABELS + FREE DELIVERY BY PARCEL FORCE

3.5" DELUXE LOCKABLE BOXES

40 Capacity	£3.99
100 Capacity	£4.50
Add £3.10 P&P	

3.5" STACKABLE BOXES

100 Cap Addups	£8.99
150 Cap Posso	£16.00
Add £3.10 P&P	

3.5" 10 CAPACITY BOX £1.50

AMIGA CD32

2 GAME PACK
OSCAR + DIGGER

+100 GAMES
£309.99

£284.99

BELIEVE IT OR NOT

LIMITED STOCK HURRY!!!! FREE DELIVERY

AMIGA 1200 PACKS

RACE 'N' CHASE

Nigel Mansell +
Trotts

DESKTOP

DYNAMITE

Word Work, Print Manager,
Deluxe Paint IV, Oscar,
Dennis

£279.99 £324.99

AUTHORISED DEALER
1 YR AT HOME SERVICE

85Mb	£474.99	85Mb	£524.99
127Mb	£509.99	127Mb	£559.99

FREE DELIVERY

SPECIAL XMAS DEALS

**WHEN YOU BUY ANY AMIGA YOU CAN
HAVE THE FOLLOWING OPTIONS**

12 GAMES FOR £14.99

Road to Hell, Tank Battle, AGA Tetris, Pooman 92,
Duel, Lemmings, Mouseman, Wizzy's Quest,
Premier Picks, Tangle, Super League Manager, Bop
& Flop

£14.99 FOR:

10 Disks, Mouse Mat, Microswitch Joystick, Storage
box, Disk cleaner

AMIGA CABLES

Amiga to TV Scart	£10.99
Amiga to Sony TV	£10.99
Amiga to Amiga	£10.99
Deluxe Carpet Game Pad	£17.99
Joystick Splitters (2)	£5.99
Joystick Extension Lead 10ft	£5.99
Printer Lead	£4.00

DUST COVERS

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

INKJET CARTRIDGES & REFILLS

HP Deskjet Black Ink Cartridges	£14.99
HP Deskjet Black Ink Refill	£9.99
HP Deskjet Black Dual Capacity Cartridge	£21.99
HP Deskjet Black Dual Capacity Refill	£14.99
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

**BRANDED DISKS
SONY - 3M - JVC - TDK**

QUANTITY	DS/DD	HIGH DENSITY
50 3.5"	31.99	51.00
100 3.5"	60.00	100.00

100 3.5" HIGH DENSITY BULK DISKS £58

FREE LABELS & DELIVERY

TOP QUALITY RIBBONS

	OFF 3+	5+
Panasonic KDP1080/1180/1123/1124	3.45	3.30
Panasonic 2122/2180 Cal Orig	15.95	15.45
Panasonic 2122/2180 Mono Orig	6.50	6.15
Citizen 1200/500 9/24	2.85	2.70
Star IC210/20 Black	2.95	2.75
Star IC200 Black	3.50	3.25
Star IC 24-10/24 200	2.75	2.50
Star IC 24-10/24 200 colour Orig	12.95	12.50
Upson IQ400/500/600/850	4.45	4.30

Add £2 for Delivery

PRINTERS

* Panasonic 2122 24 pin Colour	£214.99
* Panasonic 2180 9 pin Colour	£184.99
Star IC24-10 24 pin colour + sheet feeder	£224.99
Citizen Swift 90 9 pin mono	£154.99
Citizen Swift 90 9 pin mono	£169.99
Citizen Swift 200 24 pin colour	£215.00
Plot. 2023 24 pin mono + sheet feeder	£185.00
Citizen 1200 9 pin mono	£125.00

* FREE Worthenby Word Processor RRP £129.99

MONITORS

Commodore 1084 ST	£179.99
Commodore 1940	£264.99
Commodore 1947	£364.99

FREE LEADS & DELIVERY

ACCESSORIES

3.5" Disk Head Cleaner	£2.99
Mouse Mat	£2.25
1000 Labels	£10.00
Amiga External Disk Drives	£29.99
Pinpoint Mouse Amiga	£12.50
Universal Printer Stand	£4.99

FREE LEADS & DELIVERY

ALL PRICES INCLUDE VAT & DELIVERY (Unless otherwise Stated) **WITHIN 3 DAYS (UK MAINLAND ONLY)**

ADD £8.00 FOR NEXT DAY DELIVERY CALL OR SEND CHEQUES/POSTAL ORDERS TO:

GREY-TRONICS LTD, UNIT 1015 WHITGIFT CENTRE,

CROYDON, SURREY CRO 1 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 6 working days for cheques to clear.

MERRY CHRISTMAS



GREY-TRONICS

CRUISE FOR A KILLER 13.48 JUNGLE FEVER (1989) 17.99 REACH FOR THE SKIES 25.49 EAR MCKINACKEN (PROT)

Final Copy 2

£69.95

Softwood Inc, Gordon Harwood,
New Street, Alfreton DE5 7BP
Tel 0773 83678

Like all true American products, the 256 true colour Final Copy 2 attempts to make itself bigger and better than the rest. Hailed by its makers as the ultimate word processor and desktop publishing combo, Softwood Inc have certainly pulled a flashy, fast and solid if flawed piece of software out of the metaphorical bag.

When booted in, the user is faced with a plethora of the usual options plus the DTP drawing tools for generating ovals, boxes, graphs and frames. The latter features are not offered by any other package here other than its predecessor and stablemate Pen Pal.

Also included is the PC-aspiring viewing option which is vital for any DTP software. Click on it and the user is presented with a list of zoom in and out ratios which enable real precision in text and picture placement.

Final Copy 2 will read any IFF file which can then be manipulated, resized and cropped at a fast rate to suit the user's tastes (a rotation facility would have been useful).

Add the bonus of an excellent 256 true colour palette that can be displayed on-screen at any one time and Softwood Inc's latest AGA supported offering sounds unbeatable.

Alas, the old adage "all that glitters is not gold" is appropriate – FC2 is primarily a word processing package and while offering a healthy batch of WP features, there are a few omissions which leaves one wondering why they weren't included.

For starters, there is no show "invisible" option which usually displays carriage returns, tabs and the like. Because of this, when text is converted into Ascii format, it'll be like walking up an 80 degree slope to clean up any formatting problems.

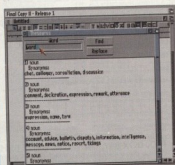
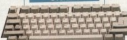
There is also no support for Adobe Type One and Agfa Compugraphic fonts. Back this up with no list or index generator as featured in Wordworth v2 and you've got a typical example of "great potential but must try harder".

Having said all this, when push comes to shove, Final Copy 2 is a good looking package with some powerful features to boot and provides the user with enough facilities to create an attractive business or home document.



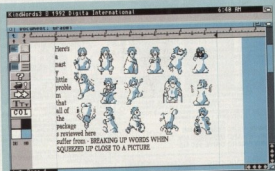
Final Copy 2 boasts a pseudo desktop publishing side to its program

Ease of use 7
Value for money 8
Facilities 8
Speed 9
Overall 8



A Thesaurus is essential to any comprehensive wordprocessor

Word



With all picture loading packages reviewed here, the text wrapping tends to break up words without inserting a hyphen. In this example, KindWords 3 shows off this particular inability admirably...

KindWords 3

£26.99

Activision, Sheraton House, Lower Road,
Chorleywood WD3 5LH

The second contender for the crown is KindWords 3 from the Disc Company. If you're familiar with Amiga word processors, you may well remember the hammering its parent KindWords 2 received due to its slow, bug-ridden performance.

When v3 popped up last year, it came as rather a surprise that the entire program had been rewritten by Digita International, the producers of Wordworth. As soon as it's booted in, you can see the striking similarity.

The wysiwyg (what you see is what you get) front end is practically identical but has fewer options than Wordworth. Icons run down the left-hand side of the screen and include the standard array of tab markers, text alignment, line spacing, undo, typeface, colour controls and palette.

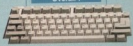
The pull down menus at the top yield a spelling checker, thesaurus and editing facilities. IFF pictures with a maximum of 16 colours can be placed anywhere on the page and manipulated into the desired position but this is not a DTP program so don't expect too much control when compared with the likes of Final Copy 2.

One of the program's strongest points is the ease of use. While the manual may seem thin compared to the encyclopaedic bulk of the other titles reviewed here, KindWords3 features a help option which details each function.

On the negative side, for users of other packages such as Protext and ProWrite, documents cannot be loaded or saved from other sources, only in KW3 or Wordworth format – Ascii or IFF text. This coupled with the lack of PostScript support, custom printer drivers, differing viewing ratios – it's a real pain doing any kind of layout work when you can't see the full result of your efforts up on screen, and others makes KindWords 3 a non-contender for serious office use. However, it's one of the best in its price range.

Cynically, the package sometimes feels like nothing more than a cheap and cheerful version of Wordworth brought out to fill a gap in the low budget market but considering that it is half the price of its big brother, it does fulfil its goal admirably. It offers basic features with an easy to use, friendly interface and is suitable for beginners and home users alike.

Ease of use 8
Value for money 9
Facilities 6
Speed 7
Overall 7



Adam Phillips acts as referee for the latest fight in the word processing wars. Find out which package is right for you

honour

Word processors were invented to do one thing – to put an end to that cumbersome piece of equipment, the typewriter. To banish typing errors, to vanquish redoing an entire sheet because you change your mind about a sentence structure, to halt the tide of frustration at the lack of facilities and to shred once and for all the amount of manhandling the whole process takes.

In stepped computers to save the world from monotony and Typex, to create a tool that would become more popular than its

crippled little brother ever was.

Whether you're a teacher typing a report or Stephen King keying in his latest epic, word processors have become part of many peoples' lives.

In the beginning Amiga word processing packages were ill in comparison to the monsters found on the PC but over the last year, we've seen a steady influx of software that is beginning to really show off the Amiga's word crunching capabilities.

Here is a pick of some of the best... let the fight commence.

ProWrite 3.3

£54.95

Silica Systems, 1-4 The Mews,
Hatherley Road, Sidcup
Tel: 081-309 1111.

ProWrite 3.3 from New Horizon is the latest in the line of upgrades which have been going on since the dawn of Amiga word processing. This version has been specifically designed to include AGA as well as offering tweaks, enhancements both aesthetically and practically and all-round improvements from the last outing.

This package has always been a powerful word processor and as well as having all the features you'd expect, it has facilities that most of the titles reviewed here can't offer.

Take the retain/apply option – if you have a format or style of text that you want used elsewhere in your document, it is possible to retain the set up of a particular block of text or word and simply apply it to another thus saving time and hassle.

Another excellent if ill-planned feature is the bookmark facility. If huge essays or lengthy reports are the order of the day, ProWrite is able to lay a bookmark in the text which by the click of a button can be recalled up on screen wherever you are in the document.

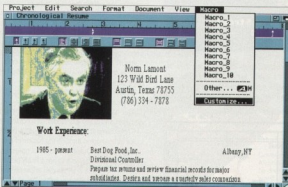
The main problem with this is only being able to use one per document – a system of numbered or named bookmarks as used in Wordworth would improve and fulfil the potential that this option has.

The packages biggest let-down is picture placement. While saying that it supports AGA and 256 colours on-screen, the actual net result is a rather messy dithered interpretation of the image; 256 colours and Ham8 may well be recognised by the computer

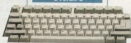
but if you actually want to see it in all its technicolour glory up on the screen then forget it.

Another limitation is speed both in manipulating and especially loading times. When compared to Final Copy 2, ProWrite positively drags its heels when booting an image in.

These misgivings aside, it offers enough flexibility and versatility to be ideal for home use. With full PostScript support, the user being able to set different headers and footers for odd and even pages, the ability to customise the function keys through macro and a spelling checker that checks as you type, ProWrite v3.3 is well worth taking a look at – especially with the recent price slash.



Ease of use 7
Value for money 9
Facilities 8
Speed 8
Overall 8



Make ProWrite faster and use AGA supported then this package could end up at the top of the pile

GLOSSARY

- Acii**..... Acronym for American Standard Code for Information Interchange. This translates into a code that can be transferred between different computers or between a computer and peripheral device.
- boot**..... Another way to say start up.
- carriage return**..... A non-printing Acii character that causes printer or display to place the next character on the left margin; in other words to end a line of text and start a new one. Even though carriage returns are 'invisible', they're deleted like normal characters.
- font**..... A complete alphabet of characters for one design, size and style.
- HAM**..... Acronym for Hold And Modify, used by the Amiga to display 4,096 colours at once, using only a fraction of the memory required by normal methods.

mailmerge..... An application that takes names and addresses from a database and puts them into form letters.

Postscript..... A page description language used to transfer information to printers and other devices.

Final Writer preview

£129.95

Softwood Europe,
0773 836781

From the same stable as Pen Pal and Final Copy 2, Final Writer is apparently, according to the manufacturers Softwood, the most comprehensive word processor with DTP capabilities to match ever produced on the Amiga.

You'll have to wait a while for our definitive review but judging from appearances and the bundle of information that flew our way, it certainly seems to be a package worth waiting for.

Like Final Copy 2, Final Writer has DTP facilities but also rotate text and graphics option to make documents look the real business. Couple this with a host of powerful features from cutting, cropping and pasting graphics to structured EPS clip art images supplied with the package and Final Writer looks like it could well be a winner. Stay tuned for more details...

Wordworth v2

£129.99

**Digitia International Ltd,
Black Horse House, Exmouth EX8 1J
Tel: 0395 270273.**

Wordworth v2 is a plush, solid and attractive word processor with an intelligent interface and a comprehensive well-designed manual.

This package is the most popular in the *Amiga Computing* offices due to its wide selection of facilities and clear layout. Digitia International, the programmers, have always tried to incorporate easy on the eye displays and this is no different.

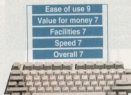
It features very basic DTP facilities such as the ability to place pictures and manipulate them, but has none of the drawing tools that its main rival Final Copy 2 boasts.

A page preview can be selected to see either facing pages, several or thumb nail size for multi page viewing. I wasn't convinced that the representations were particularly accurate and as with Pen Pal, graphics were certainly out of proportion on a full page preview.

Imported pictures range from not only AGA Ham8, 256 and colour IFFs but also include ProDraw clip art, Encapsulated PostScript and the PC Bitmap formats, PCX and BMP which none of the other packages can cater for.

Full colour AGA, HAM and IFF can be loaded through setting the screen preference in the Workbench which means those with hi-res monitors can word process in any resolution they want to.

The only drawback is that it still takes a long time to import large pictures and the program eats up memory

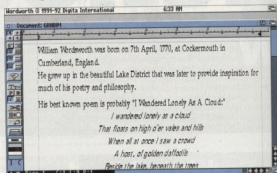


like Final Copy 2 never did.

On the word processing side, it has wysiwyg display and a large selection of features. The user is able to create indexes and lists. This is achieved through writing the text and highlighting the words that you wish to be stored in the list which are then transferred to be used later.

Among the literary options is the glossary. When chosen, the user is presented with a list of terms commonly used in letters, documents and the like. By clicking on one of them, it is placed on the page wherever the cursor is. This list can also be personalised and expanded to include your own favourite catch phrase. Like ProWrite 3.3, Wordworth also features a bookmark facility but improves on it by giving the user the option to insert as many as they need in a single document by simply naming each one.

If full PostScript support, 17 superb Agfa fonts and drivers for 140 individual printers in a professional operating package sound appealing, then Wordworth v2 is well worth taking a look at. Highly recommended.



Here's that poem in full plush wysiwyg courtesy of Wordworth

Pen Pal

£36.95

**Gordon Harwood, New Street,
Alfreton DE5 7BH
Tel: 0773 836781**

Of all the packages reviewed here, Pen Pal, from the makers of Final Copy 2, is the most user friendly and accessible of them all. It's ideally suited to for the absolute beginner wanting to create a reasonable document or database without becoming flustered and frustrated due to technical instructions or unwieldy operation. The actual

package is split up into two different sections - a basic word processor and a database creator for producing detailed information storage sheets.

On loading, the user is presented with a well laid-out work top which includes DTP drawing tools. With these, as with FC2, you are able to construct boxes, horizontal and vertical lines but not ovals.

Other facilities include edit, file controls, mail merge, a large font selection and so on. As far as the typeset option operates, it works well but it is not possible to customise your own sizes. This is made worse by the maximum point size only being 48 when, for a good solid title, 65 is often needed.

Another excellent feature that hasn't been implemented as well as it could have been is the full-page view. When selected, the user is shown a view of the whole page plus a window for close up work.

By using the magnifying glass pointer, it's possible to select the part of a document you wish to see in more detail.

This all works fine apart from the fact that the full-page view is not what you'll see on paper and is actually stretched horizontally out of proportion.

This makes it very difficult to get a precise idea on exactly how the document looks without going through the hassle of printing it out and wasting paper.

Pen Pal does have some useful options such as locking up graphics so that the user doesn't accidentally move a finely positioned picture or set of images.

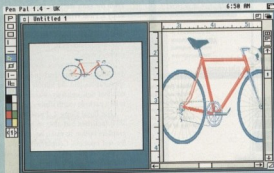
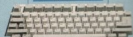
Form making is another well implemented facility. By creating the basic structure for the invoice or whatever it may be, all the user has to do is simply fill in the details.

The database creator is simple to use and as with the word processing section, is

Asci-compatible. Through the generator, a database to suit your specific needs is created but for serious business use, this is not adequate.

With no special printer drivers or PostScript option, Pen Pal cannot really be seen as anything more than a good introduction title and a utility that can only really be used to any useful effect in the home.

**Ease of use 8
Value for money 7
Facilities 9
Speed 8
Overall 9**



The excellent magnifying window on Pen Pal marred only by the disproportionate display...

THE MICRO ADVENTURES OF...

SAMIGA

"...BY THE TIME I REACHED THE SCENE, THE DISCS HAD BEEN 'RUBBED OUT'! THERE WAS ONLY ONE THING TO DO. CALL 'SIREN SOFTWARE' FOR EXTRA BACKUP!"

TELEPHONE
061-724 7572
FAX 061-724 4893



X BACKUP PRO

X-Backup Pro is the most powerful disc backup utility available for the Amiga. BUT DON'T TAKE OUR WORD FOR IT...

CU Amiga Magazine, July 1991

"IT'S UNBEATABLE."

'a veritable bargain at just £39.99'

Amiga Computing, September 1991

'fast, flexible and reliable'

Amiga Computing, September 1993

£39.99

+ £1 postage & packing

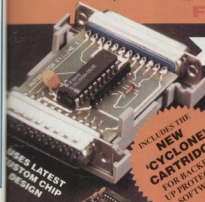
THIS PRODUCT MUST NOT BE USED TO INFRINGE COPYRIGHT.

Unlike other disc backup utilities, X-BACKUP PRO is totally automatic and extremely simple to use. It is fully compatible with ALL AMIGA computers.

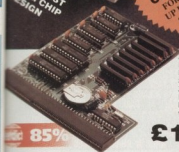
- Will backup virtually any disc onto another disc.
- Full hard disc backup.
- File management facility.
- Optimise, formats, repairs, verifies.
- Includes the 'AUTOSWITCH' CYCLONE cartridge. Simply plugs into the external disc drive socket at the rear of the Amiga, and plug your external disc drive into the back of the CYCLONE cartridge for unbeatable disc backup power. An external disc drive is required for use with the CYCLONE cartridge. These are available from us priced £34.99.

FULL MONEY BACK GUARANTEE.

If you can find a more powerful disc backup utility, we will give you your money back.



INCLUDES THE NEW 'CYCLONE' FOR BACKING UP PROTECTED SOFTWARE



A1200 1200 4mb memory expansion with clock New state of the art surface mount design. Now includes FPU socket 32 bit wide auto configuring Fastram. Zero wait state allows the A1200 to run at full speed. Increase the speed of the computer by 219% Battery backed clock keeps the correct time and date even when the A1200 is switched off.

Simple trapdoor installation.

68881 FPU **£34.99**

68882 FPU **£79.99**

£179.99

SPECIAL OFFER

Deluxe disc drives

Whisper quiet. Slimline design. Suits any Amiga. Cooling vents. Sleek, high quality metal casing. Quality Sony/Citizen drive mechanism. On/Off switch and throughput at the rear of the drive. Full 880K capacity. Long reach connection cable.

CYCLONE COMPATIBLE

£54.99



Order **NOW** for immediate despatch
Tel. 061 724 7572 Fax 061 724 4893
Telesales open 9am - 6pm Monday-Friday
Access/Visa accepted

Send a cheque/Postal order or credit card details to:
Siren Software, Wilton House, Bury Rd, Radcliffe, Manchester M26 9UR England
Government, Education and PLC orders welcome.
All prices include VAT at the current rate. Postage and packing will be charged at £3.50 per order (U.K.), £7.50 Europe, £12.50 rest of world.
Please note that 5 working days must be allowed for cheque clearance. Immediate clearance on Building Society cheque or Bank Draft.

HARD DISC DRIVES

85mb **£174.99**
120mb **£214.99**
170mb **£259.99**
210mb **£339.99**
256mb **£299.99**

Add £289.99 for A1200 fitted with above drives. Our 2.5" hard drives for the Amiga A1200/A600 offer speedy access times and come complete with fitting cable, screws and full instructions. They are pre-formatted and have workbench already installed for immediate use. Fully guaranteed for 12 months.

Free fitting service to personal callers

Please phone 061-724 7572 for prices of 20mb, 40mb, 60mb drives

SUPERB VALUE FOR MONEY



Soundblaster

The **SOUNDBLASTER** is a 10 watt stereo amplifier that comes complete with high quality 3 way speakers, power supply and **FREE STEREO HEADPHONES!** The **SOUNDBLASTER** adds a new dimension to games playing, imagine stunning stereo sound effects, crystal clear samples and terrific stereo tunes. The **SOUNDBLASTER** also boosts games playability! The speakers are powerful 50 watt 3 way units featuring a 3" woofer, 2" hornker and a 1" tweeter to provide a powerful crisp sound.

£44.99

WE'VE GOT WHAT YOU NEED

IMPROVED SOUND QUALITY



SIREN SOFTWARE

Wilton House,
Bury Rd,
Radcliffe,
Manchester
M26 9UR
England

Free

...with ALL Amigas and CD32



by...



**PLUS... a Mouse Mat,
Dust Cover and Micro
Switched Joystick
with Amiga's - only from...**

HARWOODS

and...

**YOU decide which pack to
buy from a mammoth range
of Amiga A1200 options!**

Desktop Dynamite



Amiga A1200 with Dennis,
Deluxe Paint IV, Oscar, Print
Manager & Wordworth Home WP

OR...

Race 'N' Chase



Amiga A1200 with Trolls and
Nigel Mansell's Grand Prix

**Plus Packs with Hard Drives,
Monitors and Printers too.
ALL AT MONSTER SAVINGS!**

Jurassic Pack

The Latest Amiga A1200 Packs...

DESKTOP DYNAMITE 1

Amiga A1200 Desktop Dynamite Pack with Dennis, Deluxe Paint IV, Oscar, Print Manager and Wordworth Home WP, Plus... FREE - Mouse Mat, Dust Cover, Joystick and THE GAME of '93!

£324.95

DESKTOP DYNAMITE 2

Dynamite Pack 1 as detailed above (including Freebies), Plus... the Superb Philips 14" Pro 2000 Colour Monitor/TV giving you the best of the A1200 with a magnificent display... Desktop Dynamite Pack 2 - Great Value at Just...

£539.95

DESKTOP DYNAMITE 3

Dynamite Pack 3 has everything you'll need in ONE complete bundle at a very Special Price. We've added the market leading Citizen 240C Colour Printer to Dynamite Pack 2 (above) - the Perfect Amiga Combination Don't forget with ALL our Amigas you get Free Mouse Mat, Dust Cover, Joystick and

only... **£584.95**

RACE 'N' CHASE 1

Amiga A1200 Race 'N' Chase Pack with Trolls and Nigel Mansell's Grand Prix, Plus... FREE - Mouse Mat, Dust Cover, Microswitched Joystick and the MONSTER GAME of 1993

£274.95

RACE 'N' CHASE 2

Race 'N' Chase Pack 1 as detailed above (including Freebies), Plus... the Superb Philips 14" Pro 2000 Colour Monitor/TV giving you the best of the A1200 with a magnificent display... Race 'N' Chase Pack 2 - a Budget...

£499.95

RACE 'N' CHASE 3

Race 'N' Chase Pack 3 has everything you'll need in a Starter Pack - and... At a Budget Price! As well as the A1200 and Philips 14" Pro 2000 Monitor/TV (as our Pack 2 above), we also include the magnificent Citizen 240C Colour Printer along with Software and Harwoods comprehensive extras for only...

with FREE **£759.95**

Amiga A1200 HARD DISK DRIVE OPTIONS	DESKTOP DYNAMITE CHOICES			RACE 'N' CHASE CHOICES		
	STANDARD PACK Inc. Mouse, Leads, Manuals, Software etc.	STANDARD PACK plus PHILIPS PRO 2000 MONITOR/TV	STANDARD PACK plus PRO 2000 & CITIZEN 240C COLOUR PRINTER	STANDARD PACK Inc. Mouse, Leads, Manuals, Software etc.	STANDARD PACK plus PHILIPS PRO 2000 MONITOR/TV	STANDARD PACK plus PRO 2000 & CITIZEN 240C COLOUR PRINTER
85Mb.	£509.95	£719.95	£999.95	£474.95	£679.95	£939.95
130Mb.	£529.95	£744.95	£1014.95	£489.95	£699.95	£959.95
210Mb.	£689.95	£909.95	£1174.95	£659.95	£879.95	£1139.95



AMIGA

CITIZEN
PRINTERS

All prices are inclusive of VAT at 17.5%. Prices are correct at time of going to press and subject to availability - E&OE.

All trademarks are acknowledged and are Copyright © their respective holders. Jurassic Park and its Trademark are © 1992 Universal City Studios, Inc. & Amblin Entertainment, Inc.

acked!

Harwoods LifeTime Warranty Plan

Now you can add a Warranty to ANY hardware item from Harwoods for less than you'd think! Take out up to 5yrs cover and at the end of that period you can extend cover annually... A LIFETIME'S Peace of Mind! What's more the Warranty is fully transferrable enhancing resale values should you ever decide to upgrade your equipment. Available now even on hardware you may have purchased elsewhere.



POWER PRO Pack 1

Amiga A1200 with 80Mb. Hard Drive, Citizen 240C Colour Printer & Philips Pro 2000 Colour Monitor/TV PLUS: All cables, Dust Covers for Amiga & Printer, Citizen Print Manager 2, Printer Paper/Labels, Mouse Mat, Final CopyII, Superbase, Superplan, Nigel Mansells Grand Prix and Troils AND...

FANTASTIC AT **£999.95**

JURASSIC PARK



POWER PRO Pack 2

Amiga A1200 POWERPRO PACK 1 as detailed above but with the Amazing Quality MicroVitec 14" Colour MultiSync Monitor (in place of the Philips Pro 2000)

FOR THE REAL ENTHUSIAST AT A SPECIAL PRICE only...**£1199.95** AND with...

JURASSIC PARK



with FREE...

JURASSIC PARK

Amiga CD32 - THE NEW COMPUTING REVOLUTION! Ideal for the ardent games player this 32Bit CD ROM System will expand into a full computer as your needs grow with CBM's planned Keyboard, Drives etc.

with Free...

£289.95

JURASSIC PARK



PHILIPS Displays

CM 8833 MKII 14" STEREO COLOUR Inc. Leads/Dust Cover PRO 2000 14" COLOUR SUPERES MONITOR/TV Inc. Leads The best of both Worlds - Quality Computer Display and fully featured PST High Definition TV in one! Infra red remote, FastText Teletext, Loop Aerial, Headphone Socket.

£199.95

Wide Screen Lead

£239.95

The one in all Harwood packs



Commodore Displays

CBM 10845 COLOUR 14" STEREO Inc. Leads/Dust Cover CBM 1940 MULTISYNC 14" COLOUR STEREO Inc. Leads, Dust Cover etc. (for A1200's, 3000's & 4000's) .39 Dot Pitch CBM 1942 MULTISYNC 14" COLOUR STEREO Inc. Leads, Dust Cover etc. (for A1200's, 3000's & 4000's) .28 Dot Pitch

£179.95

Wide Screen Lead

£299.95

£399.95



MicroVitec Displays

14" COLOUR... True Multi-Sync Monitor, Built-in DMS, Max Res. .28 Dot Pitch

£429.95

Amiga A1200 HARD DRIVE OPTIONS

POWERPRO PACK1 with 500Mb HD A1200, Philips Pro 2000 Monitor/TV & Citizen 240C Printer

POWERPRO PACK2 with 80Mb HD A1200, Citizen 240C Printer & Multisync Microvitec Monitor

85Mb.

£999.95

£1199.95

130Mb.

£1019.95

£1219.95

210Mb.

£1189.95

£1389.95

ADDED VALUE PACKS

POWERPLAY PACK

Contains: Competition Pro 5000 Joystick, Amiga Dust Cover, 10" - 3.5" Blank Disks, Mouse Mat, Disk Storage Box. PLUS... 18 GREAT GAMES! Xenon 2 Megablast, Sir Cray, TV Sports Football, Horshages, Jumping Jackson, Bubble Plus, Bloodwitch, Tin-Tin on the Moon, Krypton Egg, Purple Saturn Day, Eliminator, Skychase, Safari Guns, Lombard RAC Rally, Captain Blood, Strike Force Harrier, Sky Fox II and Lancaster

only...**£34.95**

...purchased with an Amiga or just £28.95 separately. *Not compatible with A1200 3000/4000.

STARTER PACK

Contains: 10 - Blank Disks, Disk Library Box, Quality Mouse Mat, Amiga Dust Cover, Quality Micro-Switched Joystick

£14.50

...purchased with an Amiga or just £13.50 if bought separately.

gordon

3

5

7

9

1

3

5

7

9

1

3

5

7

9

1

3

5

7

9



There's been a lot of furore in the Amiga press of late, talking about how the PAL version of the New Tek Video Toaster is here, and we don't have to wait any longer for broadcast video on the desktop.

While the Prime Image standards converter card which makes this so-called PAL Toaster possible is certainly A Solution, it's not The Solution.

Anyone with a full grasp of the facts will ignore the desperate ravings of Amiga users who trust a spec sheet more than the evidence of their own eyes.

OK, yes, the Video Toaster is the best peripheral ever produced for the Amiga, bar none. Why? Well, primarily because it got the Amiga sold to more non-Amiga users than anything else besides Scala, and it's the first Amiga application to become something of an industry standard for DTV.

But the main reason the Toaster is a cool piece of equipment is that it allows a user, in an NTSC environment at least, to cut and paste video about like a word processor or DTP program. Oh yes, of course provided you have a little bit of extra outboard gear.

The Video Toaster isn't just as good as one of its parts, it's a whole environment. Barking on about Lightwave all the time or talking only about Digital Video Effects is missing the point.

What pundits always fail to point out is that the unique success of the Video Toaster is based on its many entry levels. Some people buy it simply for still 3D pictures, some for video captioning, some for 24-bit frame grabbing and painting.

None of these entry level uses for the Toaster require much outboard equipment, just a Toaster and a VCR or two.



So near yet so NTSC, the Video Toaster remains a PAL dream

When you climb up a rung you need better VCRs, and time base correctors to enable you to do live video mixing and other more tricky things.

Obviously some equipment can be hired initially, but the fact remains that you need it. But the cost of this outlay is offset by the initial cheapness of the Toaster itself, even cheaper of course if you already have the Amiga 2000 or 4000 to plug it into, which is more probable than not.

In a PAL environment however, this situation changes beyond recognition. Instead of having to lay out for a single board, you have to add £1,200 each for a couple of standards converters, which makes casual purchase and use impossible.

This effectively doubles or triples the price to the consumer and ensures that

even if all they wanted to do was render things up to the quality of Babylon 5 or SeaQuest DSV, they would be paying through the snout and then some for the privilege.

This means that the only people with enough dosh to lash out for a Toaster system would be the professional sector, and then quality would be the main issue.

Whereas the quality of the Toaster in an NTSC environment is easily good enough for broadcast, you wouldn't stand a chance of doing anything for broadcast in PAL.

For a start, any TV or production company wouldn't accept a programme on anything less than Betacam SP, a professional video format which is very expensive and requires outboard TBCs and the like to ensure the quality is good.

Unless you have the outboard gear there's no point in going to SP. Your average UK independent production company would only just about afford this kind of technology, let alone your average technician with a camcorder.

FRAMED

The only place you'll really get away with a home-made tape on UK TV is You've Been Framed, and using a Toaster with an STD CON that's what you'll get - the quality of a home-made tape, not anything Desktop Broadcast Video.

The reason that the semi-pro video market in the UK isn't as well developed is that we don't have the wealth of cable stations they have in the US.

These are outlaws who operate on Hi8, and where anything is permissible as long as the quality of the tapes you get is vaguely watchable. Not being rude to US TV, but NTSC is a lower quality video standard, having less lines and therefore less physical resolution than UK PAL. So content is king where quality lacks, as they say.

For the price, the Toaster is the best quality switcher you can buy, and gives you access to broadcast effects without all the expense of a full studio. That's the key, "without the expense".

Translate that into English, and you get the idea that although the Toaster is good

enough for the NTSC (Never Twice the Same Colour) standard, it's less than acceptable (in professional terms) on a PAL system anyway, regardless of what the Prime Image STD CON board can do to it.

There's been a lot of hot air generated about the Prime Image STD CON card. It isn't a transcoder, for a start, it's a standards converter. Although Prime Image claim that it's a rock solid solution, and that it's brand new, soon-to-be-patented technology, it isn't going to be that good.

Why? Well, to be brutal if it was that good all the TV and broadcast mags would be alive with talk of it. What standards converters do is difficult and processor intensive, and the technology to do it well is very expensive.

Even with very expensive standards converters you are going to lose quality - this is an inescapable fact. The images may look just about the same, but in motion they jitter, they jerk, they flop about like dead fish.

When you pan, the smooth pan is turned into a juddering mess. In short, the standards converter route is an absolute crack of poo. Why?

Imagine you have a frame of video. It's

PAL

a frame of PAL video so it is 625 lines in height. You want to put it into an NTSC device? Fine sir, we'll just trim 100 lines off the thing and it'll cram in there a treat. Obviously the lines are not all off the bottom, no you have to whip them out superlatively from every other line or so.

This is almost like de-interlacing an Amiga hi-res image. Try it yourself. Pick a nicely detailed image in hi-res loc, preferably with text in it. Now use Art Dept Pro 2 to convert it into a plain hi-res picture. Urgh.

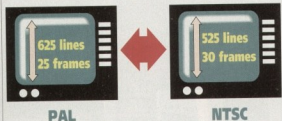
OK, not only do you have less lines but you also have more frames in NTSC. In PAL you have a video signal which runs at 50Hz, that's two fields per frame with 25 frames per second and 625 lines.

In NTSC you have a signal which runs at 60Hz, which at the same two fields per frame you end up with 30 frames per second, and 525 lines.

So going from PAL to NTSC you lose 100 lines and gain five frames. Going from PAL to PAL gains you 100 lines and loses five frames. Where do these gains and losses come from and go to?

In order to create a frame with 525 lines from a frame with 625 you have to interpolate - that is, examine each line pixel by pixel and make a best guess about what the pixels like spread over say five lines.

After that you have to lose these extra frames somewhere. In the old days they used to do just that, lose a frame every once in a while, but of course it's all a more subtle now, with the transmitters



PAL and NTSC are so different that to convert between them costs many times as much as the Video Toaster itself, and the results are often far from satisfactory

So you want a Video Toaster?

Well, here are the ways you can use a Video Toaster now and for real:

1 You can run one if you have a job with an American company who are prepared to ship you a bunch of NTSC video machines, monitors and cameras. You use the Toaster in a fully-NTSC environment and then edit and save your creations to tape. Then you use an STD CON to transfer your work to PAL tape, or simply send your tapes in NTSC to the US for consumption.

2 You can use one if you have a lot of money to waste and don't really care about quality (nobody cares more about quality than someone with lots of money, I might add).

3 If you want to use a Video Toaster like you can in the USA, then the only thing you can do is move to the USA. That is the only way you'll get max quality out for minimum money in.

Twice the
less than
terms) on
ss of what
ard can do

generated
ON card.
It's a stan-
me Image
ation, and
e-patented
at good.
It was that
ast magi
What stan-
and pro

ards co-
sality - this
ages may
n motion
about like

h pan is
short, the
absolute

video. It's

lines in an NTSC 100 lines is a treat. the bottom-out surround or so. forcing an half. Pick a e, prefer- Dept Pro picture.

lines but
TSC. In
ch runs
ne with

ch runs
lds per
per sec.

you lose
ing from
es and
e gains

25 lines
to inter-
mix by
what it

the extra
ers they
every
ill a bit

It's a US peripheral and that's the way it'll stay

between lost frames being blurred and smoothed. That's one way. In reverse you have to go from a 625 line image down to a 325 line image, which means you have to interpolate the other way.

Take a bunch of lines and figure out (in real time) what they should look like if they were only one line. And don't forget that's before you even think of moving any of this stuff around using digital video effects.

And in the Video Toaster with STD CON you are doing this process both ways in real time. It's bad enough doing this process one way and only after the editing stage, but both ways.

Add to all these other problems another little twist. The new Video Toaster

supplied with the Toaster 4000 system is a different board to previous revisions. Unless it's carefully tweaked and the little motherboard switches are precisely trimmed you can't get the machine to work, unless of course the signals it's getting are pure NTSC and nothing but. Double tricky.

This has prevented a lot of magazines from reviewing the VT as they don't have the kind of equipment or knowledge that I and my video chums have access to, which is why I have a Video Toaster myself.

It's not useful for very many things, and I have to keep installing and deinstalling it when I want to use it because it takes up so much room on disk. The Video Toaster is something you have to be very serious about before you commit yourself to it.

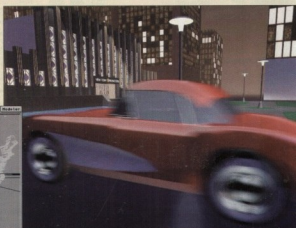
Basically you're getting the gist by now that the PAL Video Toaster isn't quite with us, as much as we would like it to be. It is the coolest piece of hardware around, and it has a certain charisma which few other peripherals have, but it is a US only product and for the foreseeable future that is the way it will remain.



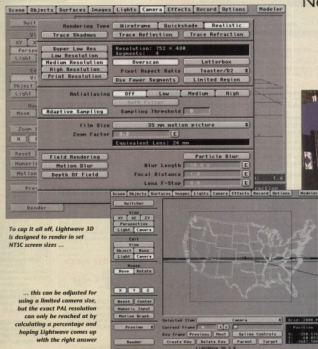
subtle effects such as death of field would suffer most in the conversion from PAL to NTSC

myth toasted!

NewTek Video Toaster user Phil South
pops up with a few good reasons
why the PAL Toaster is
not here after all



If you want motion blur, Real ID v2 is still your only good PAL bet



To cap it all off, Lightwave 3D is designed to render in set NTSC screen sizes ...

... this can be adjusted for using a limited camera size, but the exact PAL resolution can only be reached at by calculating a percentage and hoping Lightwave comes up with the right answer.

New A1200 owners, or those who will be once the soot settles from Santa's exit up the chimney, could be forgiven for thinking that 2Mb of RAM is enough for just about anything.

After all, this is four times what the original A500 sported, and still double the amount found in the A500 Plus or A600. Why add more?

To a certain extent, this is fair comment, as 2Mb will suffice for any game you care to mention and a goodly number of more serious programs.

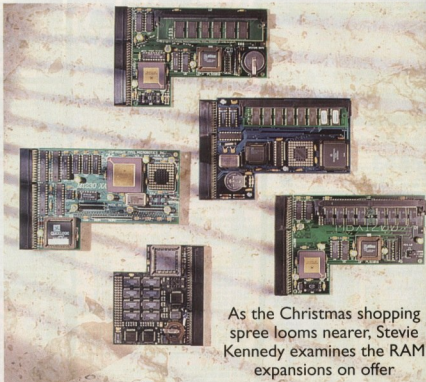
However, once a hard drive is added and the user boots from it then loads, say, a word processor using graphics in a document, the machine will slow down and eventually run out of memory.

Speed is affected because the 2Mb RAM in a basic A1200 is all chip RAM, the area to which its custom chips have direct access, and for program code this is the worst place to be.

TRAP DOOR

To avoid clashes with the memory accesses of Alice and Lisa, programs need fast RAM, and that's where the machine's trap door expansion slot comes in.

Like the older Amigas, the A1200 has a trap door on its underside which can be opened and used for peripherals without risk to the war-



As the Christmas shopping spree looms nearer, Stevie Kennedy examines the RAM expansions on offer

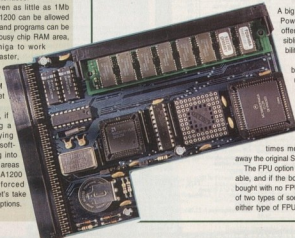
RAM for one

ranty. A 150-pin slot awaits a variety of devices, which now include RAM/FPU boards, 68030 accelerators, and SCSI interfaces.

By adding even as little as 1Mb fast RAM, the A1200 can be allowed to breathe easier and programs can be run outside the busy chip RAM area, freeing the Amiga to work smoother and faster, and this is the reason the A1200 RAM expansion market has taken off.

After a while, if fitting or using a hard drive, buying more powerful software, or moving into memory hungry areas of interest, the A1200 owner will be forced to expand, so let's take a look at those options.

Power Computing PC1208



A big brother for the PC1204, Power's latest RAM board offers similar features to its sibling but with added flexibility.

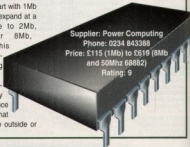
As RAM fits to this board in the form of SIMM modules, the user can choose to start with 1Mb RAM, then expand at a later date to 2Mb, 4Mb, or 8Mb, though this will sometimes mean chucking away the original SIMM.

The FPU option is again available, and if the board is initially bought with no FPU, the presence of two types of socket means that either type of FPU (pins on the outside or

pins below, basically) can be fitted. It is therefore easier to shop around looking for the cheapest 68882 from a chip supplier.

More flexible than the standard PC1204, this card is a better bet for those with ambitions or the need to start with less and build up once the wallet recovers.

Supplier: Power Computing
Phone: 0234 843368
Price: £115 (1Mb) to £619 (8Mb and 50MHz 68882)
Rating: 9



Power Computing PC1204

One of the first available A1200 RAM expansions, the PC1204 is a cheap 4Mb board with FPU option designed to meet the needs of the A1200 owner who wants more memory but doesn't plan to expand much further.

Eight 70ns ZIP chips provide the fast RAM, and anything from a 20MHz 68881 to a 50MHz 68882 can be fitted to speed up maths-hungry programs such as 3D modellers and drawing packages. A battery backed-up clock is thrown in for good measure to remedy the A1200's lack of a time keeper.

Build quality is good, the solid PCB giving an impression of reliability, and the board should not conflict with peripherals attached to the PCMCIA port.

All in all, a cost-effective answer to basic fast RAM problems, though prospective buyers should note that there is no facility for adding extra RAM at a later date.

Supplier:
Power Computing
Phone: 0234 843388
Price: £185 (no FPU) to
£339.95 (50MHz 68882)
Rating: 8

Blizzard 1200/4

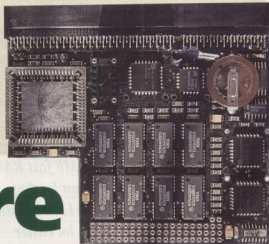
The Blizzard board is the smallest around at the moment and benefits from a very compact design in which every chip save the FPU is surface mounted.

Eight 70ns DRAMs provide the memory boost, and a further 4Mb can be added by buying and clipping on the ADD4 module, which brings the board up to size with the others. A battery backed-up clock rounds off this neat little card with the nearest little rechargeable battery we've seen.

Maths co-processors, either 68881 or 68882, can be added and the board is rated at up to 40MHz, so with a possible 8Mb RAM and the faster co-processors, there's a certain amount of upgradability, even though no SIMM slots are used.

The method of bunging an extra board on the end of the A1200/4 main PCB seems a little crude, and whether or not it will be as reliable as a SIMM socket is debatable. Keeping down the initial cost as it does, the method makes the Blizzard a good buy, though, and the extra 4Mb RAM is cheap at £159.

Supplier:
New Horizon Computers
Phone: 0989 750250
Price: From £179 (4Mb) to
£278 (4Mb, 33MHz)



A4000 options

Owners of the premier Amiga have probably the least choice of all, but this is amply compensated for by the simplest and most economic route to extra RAM. The A4000 motherboard can accept extra SIMMs up to a maximum of 16Mb in its four fast RAM slots, and this should be enough for most users.

Over and above this total, though with heavy memory requirements – such as those driving a flatbed scanner, or indulging in a great deal of graphics work – have only one option at present.

American company DKB will shortly release their Zorro III RAM board, capable of holding 128Mb of RAM using 16Mb SIMMs, and though the fully-populated board will no doubt be extremely expensive, it is the only choice for those in the high end of the market who need a great deal of memory.

For pricing details and availability of the DKB board, phone Silca Systems on 081-309 1111.

Chip vs fast

The Amiga has two types of memory: chip RAM and fast RAM. The former was designed as an area of memory to which the custom chips, Denise and Agnus to start with, Lisa and Alice on the new machines, can read and write data directly.

For this reason, when chip RAM starts to run low, programs such as DPaint start to complain that they don't have enough memory to open a particular screen, and so on. The advent of the 2Mb chip RAM Amigas, with twice as much memory for graphics and sound, was a blessing to all.

Unfortunately, chip RAM is not the ideal place for program code to reside, and there are two main reasons. First of all, the custom chips will run out of chip RAM a lot faster if it is cluttered up with programs, and secondly the programs themselves will not run as quickly.

Competition with the custom chips for access to RAM is bad enough for speed, but when the programs themselves rob Alice and Lisa of RAM, they slow themselves down as well, and we're caught in a catch-22. The only way out of this vicious circle is to add fast RAM.

This extra memory cannot be directly accessed by the custom chips and is organised such that programs run at their best speed. In effect, a bit of fast RAM is the simplest and cheapest accelerator memory can buy.

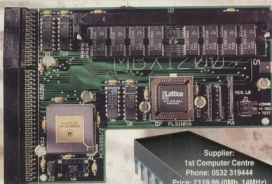
Microbotics MBX1200

The MBX1200 is a RAM and FPU combination much like the PC1204 in that it utilises a SIMM socket for flexibility, enabling users to buy the board in 1Mb, 2Mb, 4Mb, or 8Mb configurations.

A co-processor socket provides expansion capabilities using the 68882, and with chips rated at up to 50MHz, A1200 owners with productivity in mind should find enough elbow room here.

Build quality, in common with all Microbotics products, is superb, and the solid ruggedness of the card gives one the impression that it could almost survive being driven over by a car.

Dark green PCBs, surface mounted components, and an air of solidity give the Microbotics products a quality feel matched only by the PC1208.



Supplier:
1st Computer Centre
Phone: 0532 319444
Price: £119.99 (0Mb, 14MHz)
to £277.99 (0Mb, 50MHz)
Rating: 9

Price hike

Earlier this summer, a duo of natural disasters conspired to nobble the RAM chip industry and boost prices well above the lows to which they had sunk early in 1993.

In Japan, a fire at one chip factory and an earthquake near another temporarily forced chip prices up and provided the excuse the industry needed to keep them there.

PC box-shifters, struggling on tiny margins, and manufacturers of all kinds can make more profit on more expensive RAM chips, so it is unlikely that prices will fall very quickly even after the immediate shortage. Competition will inevitably drive them down, but it might be summer 1994 before we see real price cuts.

For the moment, then, A1200 owners with need for fast RAM but no burning requirement as yet for huge wads of the stuff would be advised to buy one of the slightly more expensive boards which offer 1Mb and 2Mb options and wait until RAM prices come down again before investing in a 4Mb SIMM.

None of the simple RAM and FPU cards have two SIMM slots, but some of the 68030 accelerators do, and this makes life much easier.

For example, owners of the GVP A1230 might opt to buy the card with a 2Mb SIMM, then add another 2Mb SIMM for a total of 4Mb without having to throw away or sell the original SIMM.

Potential upgraders with single slot cards should bear in mind that the original SIMM will have to be sold, traded in, or discarded when bumping up the memory, so a word with the suppliers on whether or not a trade-in option exists is essential.

Microbotics MBX1200z

This is a later version of the MBX1200, offering exactly the same specifications with the addition of a battery backed-up clock



Supplier: Indie Direct
Phone: 0543 419999
Price: £119.99 (0Mb, 14MHz)
to £279.99 (8Mb, 50MHz)
Rating: 9

Turbotech A41200



Another cheap 4Mb card, the Turbotech is more or less identical to Power's PC1204 with the important omission of an FPU option.

Consisting of eight 70ns ZIP chips and a battery backed-up clock, this is a no-nonsense card aimed at the home user with simple requirements for memory expansion and nothing else.

The Turbotech A41200 is built well, with the usual predominance of surface mounted components, and behaves well in use, so should render adequate service for the computer's lifetime.

As far as speeding up the Amiga is concerned, Turbotech's lack of a co-processor leaves it firmly anchored to the bottom of the market, but the addition of fast RAM will always give a machine regardless of extra chipper.



Supplier: Siren Software
Phone: 061-224 7572
Price: £169
Rating: 7

Even as little as 1Mb fast RAM can let the A1200 breathe a lot easier

Breath easy

Any Amiga working on a diet exclusively of chip RAM will suffer from a memory bottleneck which will inevitably lead to a slow down in operation.

Without the fast RAM in which to run, programs will compete with graphics and sound data for space, and the system will start to drag its feet.

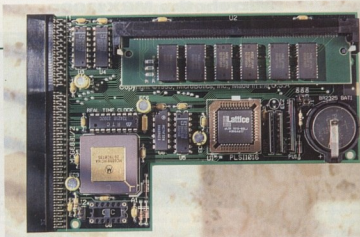
With fast RAM added, everything becomes a great deal easier, and the program code has a space of its own in which to roam while the custom chips get on with the job of messing about with the data in chip RAM.

This is a rather simplistic picture, but the point is that chip RAM is designed to be used directly by the custom chips, and is where data such as sound and graphics are stored, and where screens are buffered or drawn in the background and so on.

To shove program code in with this lot is asking for trouble, and that's what most manufacturers claim that their RAM expansions will give you anything from 100 per cent to 300 per cent speed boosts. In effect, the most obvious change users will see is that Workbench and other productivity packages run more smoothly. Games shouldn't be affected as most are designed with unexpanded Amigas in mind.

Even 1Mb of fast RAM would make a big difference to the smooth running of an A1200, and 2Mb should be enough to allow paint packages and other memory-hungry programs to run from hard drive without constantly running out of chip RAM.

The norm seems to be 4Mb these days, but this can be expensive, and users are advised to take a close look at the expansion boards which have a variety of configurations.



NEW! AMIGA 1200 PACKS AMIGA CD³² CONSOLE

FROM SILICA - THE UK'S No1 AMIGA SPECIALISTS

FREE! FROM SILICA ZOO! SOFTWARE PACK

ZOO! is the software pack of the year. It includes: Zoo!, Transwrite, Pinball Dreams and Striker - Value £127.92

All Amigas from Silica (excluding CD³² and Amiga 4000) include a FREE ZOO! pack and, many of them also include GFA Basic and Photon Paint II. Check individual panels for details.

Notation: Title of the year - 80% Amiga Comp. New 100%
TRANSLITE - Word Processor and Spell Checker £29.99
ZOO! DREAMS - Pinball Simulator 94% A.G. - 1st 99.99
PINBALL - Pinball Simulator 94% A.G. - 1st 99.99
ZOO! PACK £127.92
GFA BASIC v3.5 - Powerful Basic Programming Language £30.00
PHOTON PAINT II - Powerful Graphics Painting Package £30.00

TOTAL VALUE: £267.87

AMIGA 600 LEMMINGS PACK



1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 600 £199.99
• BUILT-IN TV ADAPTOR £79.99
• MICROPHONE AND PAIR £39.99
• 1x LEEMINGS £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £379.97
LESS PACK PRICE £127.92
SILICA PRICE £252.05

AMIGA 600 WILD, WEIRD & WICKED



1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 600 £199.99
• BUILT-IN TV ADAPTOR £79.99
• MICROPHONE AND PAIR £39.99
• 1x WILD, WEIRD & WICKED £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £379.97
LESS PACK PRICE £127.92
SILICA PRICE £252.05

AMIGA 600HD EPIC + HARD DRIVE



1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 600HD £299.99
• 1x EPIC £29.99
• 1x HARD DRIVE £79.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £439.97
LESS PACK PRICE £127.92
SILICA PRICE £312.05

AMIGA CD³² CONSOLE



32-BIT CD-ROM
NEW!
INCLUDES OSCAR & DOGGERS CD TITLES
PLUS! LEMMINGS CD FREE WITH CONSOLE
FREE DELIVERY
TECHNICAL SUPERIOR
AMIGA v 386A
The Amiga CD (CD32) will only work when plugged into the Mega Drive (CD288), therefore the price shown is for both models. The Amiga CD32, however, is a standalone system which works without additional units.

WORTH OVER £265

AMIGA 1200 PACKS + HARD DRIVE RACE 'N' CHASE DESKTOP DYNAMITE



1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 1200 £499.99
• 1x RACE 'N' CHASE £29.99
• 1x DESKTOP DYNAMITE £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £589.97
LESS PACK PRICE £127.92
SILICA PRICE £462.05

AMIGA 1500 HOME ACCOUNTS



1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 1500 £599.99
• 1x HOME ACCOUNTS £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £659.97
LESS PACK PRICE £127.92
SILICA PRICE £532.05

AMIGA 4000 SPECIFICATIONS



1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 4000 £1199.99
• 1x SPECIFICATIONS £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £1259.97
LESS PACK PRICE £127.92
SILICA PRICE £1132.05

AMIGA 4000 CONFIGURATIONS



1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 4000 £1199.99
• 1x CONFIGURATIONS £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £1259.97
LESS PACK PRICE £127.92
SILICA PRICE £1132.05

CDTV ADD-ON FOR A500 or A500UK



1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x CDTV ADD-ON £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £59.97
LESS PACK PRICE £127.92
SILICA PRICE £32.05

AMIGA 1200 SPECIFICATIONS

1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 1200 £499.99
• 1x SPECIFICATIONS £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £559.97
LESS PACK PRICE £127.92
SILICA PRICE £432.05

AMIGA 1500 SPECIFICATIONS

1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 1500 £599.99
• 1x SPECIFICATIONS £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £659.97
LESS PACK PRICE £127.92
SILICA PRICE £532.05

AMIGA 4000 SPECIFICATIONS

1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 4000 £1199.99
• 1x SPECIFICATIONS £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £1259.97
LESS PACK PRICE £127.92
SILICA PRICE £1132.05

AMIGA 4000 SPECIFICATIONS

1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 4000 £1199.99
• 1x SPECIFICATIONS £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £1259.97
LESS PACK PRICE £127.92
SILICA PRICE £1132.05

AMIGA 4000 SPECIFICATIONS

1 YEAR ON SITE AT HOME WARRANTY
ON ALL CONFIGURATIONS
FREE DELIVERY
PACK INCLUDES:
• 1x AMIGA 4000 £1199.99
• 1x SPECIFICATIONS £29.99
• 1x PHOTON PAINT II £30.00
TOTAL PACK VALUE £1259.97
LESS PACK PRICE £127.92
SILICA PRICE £1132.05

ALL PRICES INCLUDE VAT - DELIVERY IS FREE OF CHARGE IN THE UK MAINLAND

SILICA - THE AMIGA SPECIALISTS

Before you decide when to buy your new Amiga computer, we suggest you first consider what you want to do with it. Consider what will be the best for you in the long term. Amiga offers a wide range of software and hardware products to help you achieve your goals. We have a vast range of software and hardware products to help you achieve your goals. We have a vast range of software and hardware products to help you achieve your goals.

• SHOWROOMS: We have demonstration and training facilities at all our stores.
• THE FULL STOCK RANGE: All of our Amiga computers are available from one supplier.
• PRICE CATALOGUES: We will be happy to send you special reduced price Amiga offers, as well as details of all Amiga software and peripherals.
• PAYMENT: We accept major credit cards (cash, cheque or monthly terms). We also accept Amiga Store Cards (subject to approval).

• COMMODORE APPROVED UPGRADERS: We have a proven track record in professional computer sales.
• FREE OVERNIGHT DELIVERY: All our hardware orders shipped in the UK mainland.
• TECHNICAL SUPPORT AND TRAINING: A team of Amiga technical experts are at your service.
• PRICE MATCH: We match competitors on a "same product - same price" basis.
• ESTABLISHED 15 YEARS: We have a proven track record in professional computer sales.
• PART OF A CSM & A COMPANY: With over 100 staff, we are a well established and growing company.
• BUSINESS & EDUCATION & GOVERNMENT: Volume discounts are available. Tel: 081-309 1111.

MAL ORDER: 1-4 The Mews, Hatfield Rd, Hatfield, Cambs, MK44 4DX Tel: 081-309 1111	1-4 The Mews, Hatfield Rd, Hatfield, Cambs, MK44 4DX Tel: 081-309 1111
LONDON SHOP: 1-4 The Mews, Hatfield Rd, Hatfield, Cambs, MK44 4DX Tel: 081-309 1111	50 Tottenham Court Road, London, W1P 0BS Tel: 071-586 4000
BIDCUF SHOP: 1-4 The Mews, Hatfield Rd, Hatfield, Cambs, MK44 4DX Tel: 081-309 1111	1-4 The Mews, Hatfield Rd, Hatfield, Cambs, MK44 4DX Tel: 081-309 1111
ESSEX SHOP: 1-4 The Mews, Hatfield Rd, Hatfield, Cambs, MK44 4DX Tel: 081-309 1111	1-4 The Mews, Hatfield Rd, Hatfield, Cambs, MK44 4DX Tel: 081-309 1111
IPSWICH SHOP: 1-4 The Mews, Hatfield Rd, Hatfield, Cambs, MK44 4DX Tel: 081-309 1111	1-4 The Mews, Hatfield Rd, Hatfield, Cambs, MK44 4DX Tel: 081-309 1111

Tel: Silica Systems, AMCOM-1393-1041, 1-4 The Mews, Hatfield Rd, Hatfield, Cambs, MK44 4DX

PLEASE SEND A 64 PAGE AMIGA COLOUR CATALOGUE

McNamee/Ms/Ms: _____ Initia: _____ Surname: _____
Company Name (if applicable): _____
Address: _____
Postcode: _____
Tel (Home): _____ Tel (Work): _____
Which computer(s), if any, do you own? _____
104H

NOTE: Advertisements prices and specifications may change. Please refer to the original for the most information.

GASTEINER

Tel: 081 365 1151

Fax: 081 885 1953

Unit 2, Millmead Business Centre, Millmead Road, Tottenham Hale, London N17 9QU

ERGONOMIC DESIGN TRACKBALL SERIES

One colour	£29.99
Two colour	£34.99



AMIGA CD32



£279

A1200 + A600 HARD DRIVES

20Mb	£69
30Mb	£89
40Mb	£119
60Mb	£169
85Mb	£199
120Mb	£239
207Mb	£329
All with IDE cables	

MONITORS

Philips 8833	£199
Commodore 1940	£289
Commodore 1942	£379
Microvitec Club Scan	£379
Microvitec 20"	£1049

PRINTERS

Citizen Swift 200	£200
Citizen Swift 240 Mono	£270
Citizen Swift 240 Colour	£295
Citizen Swift 24X	£340
Citizen 1200+	£129
Citizen Swift 90 Mono	£165
Citizen Swift 90 Colour	£188
Citizen PN48 Notebook Printer	£225
Citizen Project Inkjet	£318

HEWLETT PACKARD

HP Deskjet Portable	£369
HP 510 Mono	£264
HP 500 Colour	£319
HP 550 Colour	£519

STAR

Star LC 20	£132
Star LC 100 Colour	£155
Star LC 200 Colour	£195
Star LC 24-20 Mk II	£224
Star LC 24-20 Col.	£264
Star SJ48 Bubblejet	£217
Star SJ48 Auto Sheetfeeder	£49

LASER PRINTERS

Fujitsu VM 600 Laser	£679
HP Laserjet 4L	£609
OKI 400e	£514
Ricoh PCL5	£809
Star Laserjet LCS	£589

AMIGA A1200

2Mb RAM 20Mb HD	£359
2Mb RAM 64Mb HD	£429
2Mb RAM 85Mb HD	£479
2Mb RAM 127Mb HD	£509
2Mb RAM 209Mb HD	£579
2Mb RAM only	£289

ACCESSORIES

Pen mouse for Amiga with optical pad	£34.95
Pen mouse for PCs with optical pad	£34.95
Optical mouse, 300 dpi for Amiga	£29.95
Infrared mouse, 300 dpi for Amiga	£49.95
Opto-mech mouse for PCs with pad & holder	£18.95
Opto-mech mouse for Amiga w pad & holder	£14.95
Opto-mech low cost mouse for Amiga	£8.00
Opto-mech low cost mouse for PCs	£10.00
3-button trackball for Amiga	£29.99
"Cristal" trackball for Amiga	£34.99
3-button trackball for PCs	£34.99
512Kb RAM expansion for A500+	£16.99
1Mb RAM expansion for A500+	£19.95
External 3.5" floppy drive	£50.00
Kickstart switch for A500, A2000	£14.95
Kickstart switch for A600	£29.95
Electronic boot selector	£14.95
Auto mouse/joystick switch	£10.99
Dust covers	£6.00

CDTV ADD-ON

For A500, A500+, A570	£129
-----------------------------	------

ROMBO DIGITISERS

VIDI 12 Real Time	£134.99
VIDI 24 Real Time	£219.99
VIDI 12 AGA	£75.00
Take 2	£38.00
Megamix Master	£30.00

MEMORY MASTER 1200

Internal RAM expansion with clock for Amiga 1200, populated with 1, 5 or 9Mb



AF1200 1Mb with clock, no Oscillator, no FPU Processor	£99
AF1200 4Mb with clock, no Oscillator, no FPU Processor	£199
AF1200 5Mb with clock, Oscillator, 16MHz 68882 FPU	£285
AF1200 5Mb with clock, Oscillator, 20MHz 68882 FPU	£290
AF1200 5Mb with clock, Oscillator, 25MHz 68882 FPU	£295
AF1200 5Mb with clock, Oscillator, 33MHz 68882 FPU	£299
AF1200 8Mb with clock, no Oscillator, no FPU Processor	£359
AF1200 9Mb with clock, Oscillator, 16MHz 68882 FPU	£415
AF1200 9Mb with clock, Oscillator, 20MHz 68882 FPU	£420
AF1200 9Mb with clock, Oscillator, 25MHz 68882 FPU	£429
AF1200 9Mb with clock, Oscillator, 33MHz 68882 FPU	£439

AMIGA 4000 (25MHz 68030)

2Mb RAM 80Mb HD	£949
4Mb RAM 120Mb HD	£1069
6Mb RAM 214Mb HD	£1169
4Mb RAM 245Mb HD	£1269
4Mb RAM 340Mb HD	£1369
4Mb RAM 540Mb HD	£1669

AMIGA 4000 (25MHz 68040)

6Mb RAM 80Mb HD	£1919
6Mb RAM 120Mb HD	£2069
6Mb RAM 214Mb HD	£2169
6Mb RAM 245Mb HD	£2269
6Mb RAM 340Mb HD	£2369
6Mb RAM 540Mb HD	£2669

P.S.U.

Power Supply (High Watt) for A500	£29.95
Power Supply for A1500+ A2000	£69.95

FAX MODEM

Fold a Fax Modem	£129
With Fax Software	£179

AMIGA MEMORY UPGRADE

A500 1Mb	£14.95
A500 1Mb + Clock	£13.95
A500 + 1Mb	£29.95
A600 1Mb	£21.95
A600 1Mb + Clock	£31.95
1Mb SIMM (GV)	£29.95
4Mb SIMM (GV)	£149.95
1Mb 72Pin (A4000)	£99.00
4Mb 72Pin (A4000)	£299.00
PCMCIA 2Mb	£89.00
PCMCIA 4Mb	£149.00

NEW! A1200 RAM

4Mb with Clock, no FPU Processor	£169
4Mb with Clock, 20MHz 68881 FPU	£209
4Mb with Clock, 25MHz 68882 FPU	£269
4Mb with Clock, 33MHz 68882 FPU	£279
4Mb with Clock, 40MHz 68882 FPU	£289
4Mb with Clock, 50MHz 68882 FPU	£309

40MHz ACCELERATOR FOR A1200

0Mb RAM	£299
4Mb RAM	£499

**TRADE ORDERS
WELCOME**

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 £59 please add £3.50 P&P. Other items except lasers, next day courier service £10 per box. Offshore and holidays, please call for quotation. In addition, we offer the following express services: Saturday delivery normal rate plus £10 per box, Morning, next day normal rate plus £10 per box. £80E prices subject to change without prior notice, goods are subject to change without prior notice. All trademarks acknowledged.

151
953

9QU

(58030)

...£945
...£1069
...£1169
...£1269
...£1369
...£1669

(9040)

...£1919
...£2069
...£2169
...£2269
...£2369
...£2669

£29.95

£69.95

DE

4.95
13.95
9.95
1.95
9.95
9.95
9.95
9.00
9.00
9.00

POA

169
209
269
279
289

0

99
99
99
99

99

99
99

WE WISH ALL OUR CUSTOMERS A MERRY XMAS

**NEW BRANCH
NOW OPEN**
126 Fore Street, Upper Edmonton
London N18 2AX
100 yds off North Circular Road

PCMCIA RAM CARD

Instant expansion for Amiga 600 and 1200 PCMCIA.
Just populated with 2 or 4Mb.

2Mb£89 4Mb£149



SCANNER

Newcomers who like to scan detailed graphics or complicated images will experience with the ALFADATA a favourable alternative to typing or re-scaling and investing a lot of time. Advanced users who insist on the efficient character recognition and comfortable graphic software. Choose between ALFA-DATA plus or ALFA-DATA plus OCR.

GOLD AWARD - ST FORMAT



System requirements to run OCR: minimum 2Mb-MEM and hard drive

**ALFADATA
PLUS
£119**
(256 Greyscale)

**ALFADATA
OCR
Limited Special
Offer
£145**

VERBATIM DATALIFE DISKETTES

For guaranteed data retrieval

● 100% ERROR-FREE. You get total reliability. Each diskette is subjected to more than 70 chemical, magnetic and electrical tests to ensure it delivers exceptional accuracy and reliability.

As low as **£4.49** box of 10



MEMORY MASTER 2000

8Mb RAM expansion for Amiga 2000, 3000 and 4000; uses 514400 DRAM chips.

2Mb£99 4Mb£169



AUTO MOUSE/JOYSTICK SWITCH

FOR AMIGA/ATARI

Allows you to instantly select either your mouse or joystick by a simple click on your mouse. You won't need to fumble around under or behind your computer to swap your mouse and joystick cable ever again, and also it saves your joystick port.

AT A GIVEAWAY PRICE £9.99

MOUSE 400

New from Japan. The 400 DPI mouse with Hi-tech mechanism, microswitch buttons, small, fits nice and snug in the palm of your hand. All at an affordable price of

£14.95



AT-BUS 2008

IDE/AT-Bus controller for Amiga 2000, 3000 and 4000 with 8Mb RAM Option£99



ALFAPOWER

IDE/AT-Bus controller for Amiga 500 with 8Mb RAM option; for 3.5" and 2.5" drives£99



Controller for A500/A500+£99.00
Controller + 40Mb HD£169.00
Controller + 85Mb HD£249.00
Controller + 120Mb HD£299.00
Controller + 170Mb HD£329.00
Controller + 240Mb HD£369.00
2Mb RAM£69.00
Autoboot, Autoconfig and Zero wait states

ISDN-MASTER

The data transfer sprinter for the Amiga 2000, 3000 and 4000£199



MULTIFACE CARD 3

Multi I/O card for Amiga 2000/3000/4000; 2 additional serial ports and 1 parallel port£99



GIGAMEM

Virtual memory management for all Amigas with MMU. Including 040 support£59



Most recent powerful applications for the Amiga (eg: for graphics, music, animation, raytracing, D.T.F.) require more main memory than is available or possible to integrate. GigaMem is a program which simulates up to 1 GigaByte memory, which swaps onto any mass storage system (i.e. hard disk). Intelligent management accomplishes simultaneous use of several programs in a multitasking mode.

System requirements:

- GigaMem works with all AMIGA <8> computers with MMU (Memory Management Unit); i.e. Amiga's with 68020 or 68030 accelerator and MMU.
- No restriction on type of HD controller and hard disk.
- GigaMem is compatible with Kickstart 1.2/1.3 and 2.x.

£59

TRUEPAINT

24 Bit paint program for all Amigas; also AA Chipset£69



Paint Program for Amiga Application: TruePaint is a professional 24 bit paint software with full support of the AA Chipset Amiga line. Using TruePaint, Amiga graphic and 24 bit graphic can be edited without any loss of quality. A maximum of 16368 x 16368 pixels renders your graphics flexible even for slide development systems.

FEATURES:

- Up to 16368 x 16368 pixel with oversize function.
- Various draw and paint functions.
- Functions for mask, outline, recolor and filling.
- Airbrush with adjustable spray functions and stippling.
- Transparency curves also by brushes.
- Slant, rotate, scale.
- Easy drawing of Bézier curves.
- Lightable function for editing animation pictures.
- Text functions with full support of Bitmap and Compographic fonts.
- Load and save with different formats: IFF, ILLM, PPM (Unix), JPEG and TruePaint special format.
- Quick View pictures with MINIPIC function.
- Any Macro functions can be assigned to 20 functions keys.
- Unlimited Undo/Redo including Macros.
- Full AREXX support.

SYSTEM REQUIREMENTS:

- All Amiga with AA chipset, e.g. Amiga 1200/4000.
- Kickstart™ 3.0 or above.
- Minimum 2Mb graphics memory.
- Additional memory recommended.

Repair service

New service centre/repair 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 2

If up until now your computing career has been spent on a floppy-based system, the appeal of a hard disk may not be that great. After all what's the big deal, so they're faster and a bit more convenient than a floppy – hardly worth spending hundreds of pounds on, right?

Wrong. After just a few minutes exposure to a hard disk you'll grimace at the prospect of rebooting with a floppy. The difference is akin to that between walking and driving a car – with the relatively large investment being outweighed by vastly improved performance right across the board.

Before you start unscrewing your A1200 please bear in mind that if your machine is still within its warranty it will be invalidated by adding a hard disk under your own steam.

As a consequence, the following procedure is best attempted on machines which are over a year old. This isn't to say the process is difficult, in fact the A1200 is probably the easiest of all the Amiga range to upgrade.

However, if a Commodore engineer spots that a new machine has been opened for whatever reason you'll be out in the cold – end of story. Even if the problem has nothing to do the installation of the hard disk the end result will remain the same, and you'll be forced to pay for any subsequent repairs.

Now before wielding a screwdriver please read the following instructions very carefully and do not proceed unless you're completely sure of what you're

doing. At this point it must be stressed Amiga Computing will not be held responsible for any damage to you or your machine.

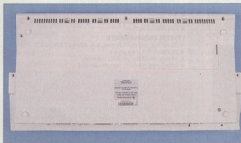
First disconnect everything from the machine, paying special attention to the power supply. Under circumstances attempt any maintenance while the machine is plugged in.

Now flip the machine over and undo the screws which hold the casing together, then slice open the warranty seals – there's no going back now... Hold the machine together and carefully turn the machine right-side up.

You should now be able to remove the lid revealing the hard drive cradle within. You may notice that the top of the casing poses against the casing – this is normal and is done to keep the drive from sliding around inside the machine.

At this point go the kitchen, make a coffee and return to the table with: the coffee, a small crosshead screwdriver and one IDE drive – complete with connecting cable.

The coffee is to calm your nerves – feel free to increase the dose as necessary. Now please be careful and take your time to follow these instructions to the letter:



Step 1: remove the screws and open the casing

fit an A1200

If you're contemplating a hard disk for your A1200, read on as AC points out the do's and don'ts of installation



Step two: carefully release the ribbon connector and remove the keyboard

- Disconnect the disk drive LEDs.
 - Now simply replace the keyboard and reassemble the machine.
 - Slide the keyboard back and free from its catches, placing it behind the body of the machine. If necessary you can disconnect the keyboard ribbon cable from the motherboard – but be sure to remember its original position and alignment.
 - Now fit the drive into the cradle – it can be temporarily removed from the machine if required.
 - Connect the cable to the drive and replace the cradle and drive combination into the machine – connecting the aforementioned cable to the interface on the motherboard of the machine.
- Believe it or not the physical installation is now complete, it's literally that simple. Now it's time to move on to the preparation and partitioning of the drive.
- If you're not familiar with hard disks partitioning the process can be a rather confusing. However in reality it's a fairly straightforward procedure which simply slices the disk into several user defined portions.
- You may well ask why bother? Well there are some advantages involved in partitioning. Firstly you can impress your friends by pretending to have more hard disks than you've actually got!
- But perhaps more import is the safety

Before you buy...

Before you rush out, cash in hand, there are a few basic points you should consider:

Is there any major difference between the various models on the market?

Although some appear faster than others during benchmark tests the actual speed difference is minute during normal operations.

What size drive should I get?

Probably the best way to decide on a size is to add up all the software you'd like to install and then pick the next size up from that – under no circumstances consider anything less than a 40Mb drive.

Do I need anything else?

Get a copy of HD-Backup or Quarterback Tools – which was given away with our December issue. In addition invest in some form of directory manager such as SID II or Directory Opus – good file management is an essential part of owning any hard disk.

Which type of hard disk do I need?

In the case of an Amiga 1200 you'll require a 2.5in IDE drive which has been approved for use with the machine.

sider:

interback
with our
invest in
such as
le main-
owning

7? require
improved

0 hard drive

for
out

and

and

and

and

and

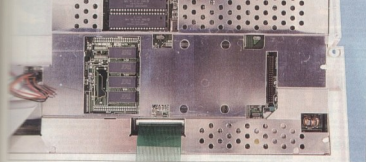
and

and

and

and

and



Step three: locate the hard drive cradle, take it out, and bolt the hard drive to it using the bolts which your dealer should have supplied. Remember to treat the drive unit with care

aspect. If the unthinkable happens and your hard disk crashes, a partitioned drive will only lose the data from one of its component partitions.

As a result you'll only need to format/recover/re-install one section of the drive. In addition smaller partitions are made faster, so it's possible you could notice a slight reduction in access time – however it's pretty unlikely.

On the down side, heavily partitioned drives can be a real pain to maintain. In the early days lots of partitions can seem a great idea but when space starts to become tight you could rue the day you went mad with partitioning software.

Suddenly even relatively small files won't fit onto the drive – even though there may be lots of space left when all the free partition space is added together.

AMAZING

A particularly painful mistake is to make DH0: – otherwise known as the system disk – too small. If this happens it's amazing how soon you'll face requests which read cannot copy fonts, libraries or in fact anything else that newly installed software has a habit of adding to DH0.

At this point there's no alternative but to start moving vital directories around your system, using the Assign command to bring order to the partitioning madness you've created.

In short, don't be tempted to over partition and never make your system disk too small. On a 40Mb drive make the DH0: partition at least 10Mb.

Assuming the machine is firmly screwed together – complete with mouse, monitors and all other essential peripherals – it's time to reboot the machine using either the HDTtoolbox disk or the Amiga Computing December CoverDisk featuring RDPrep. Given the

impress your friends by pretending to have more hard disks than you've got!

choice opt for the RDPrep software give away as this is by far the simplest method of prepping a drive.

First boot the CoverDisk and run the

RDPrep software – take a look at the disk pages and readme file if you're a bit nervous. The software will now automatically search for a standard Commodore SCSI device, at which point your new drive should be located and its name pop up.

Although both HDTtoolbox and RDPrep apparently think your new drive is a SCSI, in fact it's just pretending to be so, to make life simpler for itself and mildly confusing for you.

Anyway, leaving the idiosyncrasies of the installers aside the drive should be spotted and will appear in the RDPrep screen. Now simply select it and click

on the button marked Screen 2 Partitioning.

At this point define the size of your partitions and return to screen 1. Now write the Rigid Disk Block and save a copy of the mountfile prior to quitting the package. Your new hard disk will appear on the Workbench screen as something like DH0:NDOS, DH1:NDOS and so on...

This simply means that the drive is on-line but as yet not formatted. To format the drive click once on its disk icon and select format from the pull-down menu.

The usual requester will now appear for naming the drive and selecting whether or not to have a Trashcan. Before clicking on format ensure that Fast File System is activated. Simply repeat this process for each partition on your system.

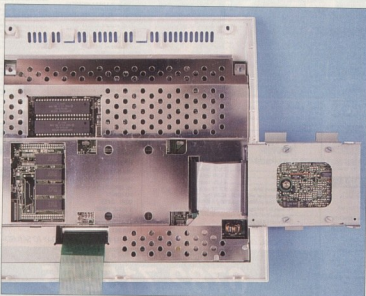
At this point you'll be happy to know the process is almost complete – all that remains is to copy Workbench onto the drive.

To do this, reboot the machine using a copy of your original Workbench disk and copying all the necessary files to your system partition. To do this open a Shell window and type in the following line:

```
copy dh0:1 [drive name:] all clone
```

Now simply repeat the process for each disk supplied with the machine and all will be installed. After you've done this for each disk make sure that dh0: is empty and warm re-boot the machine. If all is well your machine will now boot-up from the hard disk and you're in business. Have fun...

AC



Step four: connect the drive ribbon cable and re-seat the cradle, then screw down the casing and boot with your prepping software

See the CD32 revolution!

10
runners up
prizes

Interested in CD32 development? Well here's a great opportunity! First prize in our Christmas competition is a guided tour around the Psygnosis CD32 development centre in London

We'll take the lucky first prize winner to Psygnosis' plush Kings Cross offices, birthplace of CD32 Microcosm, for a super guided tour.

You'll see complex computer models on Silicon Graphics workstations, the original Microcosm on the Japanese FM Towns CD games system, and some of the exciting projects now under development. You'll meet Mike Simpson, Microcosm Project Manager and Stuart Sairgason, one of Britain's top programmers and the rest of the Microcosm team.

The ten runners up will all be able to sport some rather fashionable and exclusive Microcosm T-shirts.

Psygnosis' new game, Microcosm, featuring 256 colours, has some of the most awesome graphics and stunning video sequences to hit the small screen. The story begins amid

corporate war and sabotage when a miniaturised brain-manipulation droid is implanted in the President of the Cybertech corporation. Unfortunately for him it all goes horribly wrong. The story follows the droid's progress in a world unlike any other, involving exploration of six areas of the President's body.

Any of these prizes could be yours. All you need to do is complete the entry form and pop it in the post.



STAKING YOUR CLAIM

Send this form to Microcosm Compo, Amiga Computing Europa House, Adlington Park, Macclesfield, SK10 4NP.

Answer these simple questions:

1. How many colours are there in Microcosm?

- a. 151 ☐
b. 184 ☐
c. 256 ☐

2. What is implanted in Cybertech's president?

- a. A miniature psycho-botic implant ☐
b. A miniaturised brain-manipulation droid ☐

c. A miniature brainless manoeuvrable probe ☐

3. How many areas of the body are there to explore in Microcosm?

- a. Three ☐
b. Five ☐
c. Six ☐

Name (Mr/Mrs/Miss) _____

Address _____

Postcode _____ Daytime Phone _____

☐ Tick this box if you not wish to receive promotional material from other companies.

Closing date is January 5, 1994. The prize winner will be drawn from all the correct entries received and will be informed in writing within two months of the closing date. Result information may be obtained by

writing to our offices. No cash alternative to the prize is available. The editor's decision is final. No correspondence will be entered into.

Marriage wrecker

Star Letter

This letter is probably a bit more unusual than the others you receive. I would like to warn people out there that computing can wreck lives.

I've been married for three and a half years to a wonderful lady, and we have two great kids. My addiction to programming and games playing has helped me to lose all that.

Although the time spent on my computer went quickly for me, it dragged for my wife and the computer got all the attention.

Now I must tell it and I hate the sight of it. I have lost all the things in life that I love. I'm hoping you will print this because I know there are many people out there who are on their way to losing loved ones in the same way.

It, because of this letter, people can recognise their addiction before it's too late, then my marriage may have had some purpose. Thanks for listening.

Richard Dean, Slough

An addictive or compulsive attitude to computers is more common than many would like to believe, and, as your moving account shows, the problem isn't restricted to school-kids.

Pilot tests in schools have shown an almost 50 per cent addiction rate among those who play games regularly, so the danger of the problem becoming more acute cannot be understated.

I'm sure all our readers, particularly those with partners, will feel for you, as (if they're being honest) most will have suffered domestic strife of some sort caused by the urge to spend hours in front of a keyboard every evening. How many of these cases have resulted in such heartache is anyone's guess.

If any of our readers can be as open and courageous as you in sharing this problem with others, we'll be glad to give the matter a full airing through the ESP pages.

Not so big bang

I disagree with some of the points made in the article "CD Big Bang" in the November issue.

Firstly you say you look forward to the time when games will no longer have "cheap looking tin sprites", but massive digitisation action sequences. I do not see this in any way a step forward.

The fantastic artwork we see on some games now could be lost as artists are pushed out by anybody with a video recorder and a digitiser. This type of animation is currently used heavily in tedious and dull beat-'em-ups.

If digitising from video to game becomes the norm, does this mean we will never see a game which isn't first a film? Most of the classic games have nothing to do with film tie-ins (Populous, Civilisations, Chaos Engine, and so on).

Secondly, you say the advent of CD means that we can look forward to the game being bundled with film previews, tie-ins, 0898 competitions, special offers, and so on. Personally, I would be more than pleased to buy a CD to find out that

599Mb is used for advertising and only 1Mb for the game.

You may see this as far-fetched, but in these days of corporate take-overs it is ridiculous to one day see a Pignosis CD game accompanied by loads of Sony advertising?

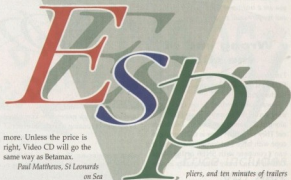
Adverts could be tacked on to the front of a game so you were forced to watch them. Where will it all end?

"Congratulations, you have just finished level one. And now, a word from our sponsors..."

Jeep! This is the stuff nightmares are made of. With some games aimed at younger audiences, the marketing-bag-wagon will see an opportunity to target these young minds with constant advertisements for the latest £100 trainers or whatever.

I do look forward to the advent of CD video, but what is the use of 74 minutes? Two episodes of Blackadder? Half a feature film? Of course a film could be provided on two CDs, but there would no doubt be a two CD price tag of £20 or

Ezra Surf's Postbag



more. Unless the price is right, Video CD will go the same way as Betamax.

Paul Matthews, St Leonards on Sea

Your concerns are those shared by thousands of game-playing Amiga owners, but they will probably remain unfounded. The vast spaces available on CD-ROM discs offer artists more flexibility, not less.

For example, the Sony corporation recently bought more than 100 Silicon Graphics workstations which, we believe, will be used to produce original 3D rendered cartoons and intro scenes for games.

Many of the larger software houses, Ocean included, have followed suit, and the result of this huge increase in graphics throughput and the benefits of the CD medium will be even more stunning intro of the type for which Pignosis are already famous.

If anything, this explosion in the amount of space available to artists will result in more leisure for graphical excellence rather than less. Check out the intro to the latest CD32 release of James Pond if you don't believe me.

As for advertisements which we are forced to watch through, can you imagine any company being so stupid as to force an unwilling audience to sit through three minutes of advertising?

We are already familiar with game intro screens proudly listing the name of the sup-

pliers, and ten minutes of trailers on most rented videos, yet we don't complain about those and don't have to watch them if we don't want to.

The most probable outcome is that video-style ads will appear on CD32 discs for games to be released, but even so, most game players will welcome a chance to see the game in action rather than trust to a magazine review.

How many of us fast forward through the pre-movie trailers on a rented video until we spot a film we are interested in, then stop and play that particular trailer?

Your concerns about vast digitised games are shared by many, but we won't see games in this format for a while, and the games companies will never attempt to sell something which proves unpopular in any case.

Digitised sequences will be used as intros or cut scenes and are unlikely to appear as part of the interactive gameplay. Quite apart from anything else, digitised human action will lay a game open to the film classification regulations.

Again, worries that 600Mb of CD space will be taken up mostly by ads and such are likely to remain just worries. No matter how much graphical nonsense surrounds a game, the software houses know that a bad game, no matter how well packaged, is a waste of

Game fix

In issue 63, J Farrar complained about Microprose B17 and Virgin's Shuttle not working on his GVP A530. I too experienced problems in running those programs from my A530.

The solution to this crisis was as simple as it was effective. Programs like these overrun the Amiga's operating system but seem unable to allocate the memory they need to run.

What I found out was that I should let the Amiga set aside the memory by sticking the program to at least 50 per cent more than the program size.

As an example, using Icon information from Workbench shows that B17 is 320,000 bytes in size. Change the stack size from the default 4,096 to 480,000 bytes, save the setting, and that's it!

Jon Hemfjell, Maze, Norway

Thanks, Jon. All tips aimed at helping readers with specific problems are gratefully received. All you sim buffs out there with accelerators and problems with your games now have another trick to try when getting them to run.

Of course, if the games companies programmed their games properly in the first place, we wouldn't have to print bug fixes, would we?

resources. What is more likely is that good games will be further enhanced by the addition of cinematographic cut scenes, intros, outros, and so on.

If you think this prospect is a bad one, then you are a traditional gamer with a capital T and in a very small minority.

Wrong end of the stick

I'm afraid you have vastly overrated the CD32. AGA makes no sense in a games machine today.

I was quite horrified to see Oscar running on it. All enemy objects stuttered along at 25 frames per second. This is not cool! They were tiny! How is CD32 going to cope with large beat-'em-up characters? It can't compete with SNES or the Mega Drive if it can't move better quality images at the same rate - SOH.

AGA is a compromise, retaining bit-planes for backward compatibility, vital for a computer but not for a console. It needs new software! This was an opportunity to introduce a true step forward by switching to byte-per-pixel graphics.

This is the most elegant and efficient way of doing graphics. You get a big increase in flexibility once the units dealt with by processor and RAM are equated to the abstractions of graphics algorithms.

Forget endless bit-masking and shifting. This helps image processing, art packages, colour DTP, real time 3D game environments, and 2D sprite drawing.

CD32 has this planar chip, but it doesn't use DMA. Conversion will still take an entire video frame of precious processor time, so don't expect to see 3D at high frame rates. I doubt it will match the speed of Mega CD's 3D hardware sprites as demonstrated in Thunderhawk.

The Amiga is supposedly a graphics machine, but it has a slow bitmap, and this is why it is dying. When will this be rectified with true DMA-to-video read-out? Can Commodore survive long enough,



and aren't Amiga games now committed to the idea of running screen conversions?

No name supplied

Answer number one: The Amiga is not dying. It is still the best selling home computer in Britain. End of false rumour.

Answer number two: How many misconceptions about the games industry can one cram into a single letter? True, the PC and consoles have certain advantages over the Amiga, but have you really looked at the games scene over the past year?

A healthy games industry is one in which good programmers can be found releasing games based upon original ideas, improving existing games, or just selling bucket-loads.

Diggers, Flashback, Hired Guns, and Syndicate, all of which originated on the Amiga, are ample testament to an industry which still has a large audience, lots of ideas, and plenty of development left in it.

Consoles can be discounted. They are a fine form of entertainment, but the only games available for them betray their incredible dependence on the very young games playing population, and the games available are of a very uniform cast.

As for your assertion that the Amiga cannot offer beat-'em-ups to rival the Mega Drive, can I just mention *Blitz* and *Invincible* to compare it to *Street Fighter 2*?

Keep an eye on *Body Blows 2*, soon to appear as a special version for the CD32, then tell me how slow Amiga games are. You slag off Oscar for its "slow" 25 frames per second movement, but by comparing this to *30Hz*, a screen refresh speed rather than a pixel movement speed, you confuse the issue.

Oscar is as smooth, if not smoother than, the majority of console games, costs less, and uses more colours on screen. As this is the first platform game of its kind on CD32 format, we can only expect the genre to improve rapidly.

You also seem far too willing to put down CD32's ability to convert and use byte-per-pixel graphics and use them in a smooth game-playing environment.

The software houses who actually make

rather than talk about the games we play have universally welcomed the planar chip, and until we see a game which utilizes this sort of PC-to-Amiga graphics conversion, it would be charitable and over-cynical to doubt its potential.

Yes, in today's game-playing world, the Amiga's bitplane graphics have certain historical disadvantages, but last Commodore released a machine with absolutely no compatibility with existing software, we would have received thousands of letters of complaint.

Far better, don't you agree, to offer the best of both worlds by retaining compatibility yet making it easier to software houses to use PC graphics?

Finally, to hold up MegaCD as a standard by which any games machine can be judged is ludicrous. MegaCD has been slated by the most important people in the games industry, the buying public, who have taken one good look and left it well alone.

With its dated 16-bit graphics, high price tag, lousy sound, and two year old game scenarios, MegaCD is about as likely to survive as a badly wounded turkey in a Butch Cassidy-style shoot-out on Christmas Eve.

It would be silly to predict that CD32 is going to sell a million units in its first year, but by the same token it would be foolish and cynical to deny Commodore's exciting new machine a few months to prove itself.

Light fingers

It's not very often I resort to your pages, but I feel I must protest in this case.

We are all familiar with software piracy and other types of computer crime, but every month when I pop down to my newsagent I see another type of crime being committed.

I am talking about the stealing of magazine *CoverDisks*. How many times have you seen your favourite magazine on the shelf without a

disk? This type of behaviour is simply not acceptable in a community where people have enough problems to be a piracy.

Not only does this crime put potential readers off from buying the magazine, but it also gives the shop owner a good reason for not stocking it. I have now placed an order at my newsagent to save me galavanting around town looking for a copy.

Finally, can you reprint the address you gave for a supplier of Bengali fonts a while back?

Abdul, Hailoluham

We're as annoyed as you are that people pilfer *CoverDisks* from magazines while they're on the shelf, but there's not much we can do about it.

The only solution would be to shrink-wrap the whole magazine with the disk in the middle, but as this would stop readers from carrying out the essential *Startup* warning browse

Extra drives

Having just purchased a second drive for my trusty A500, I was alarmed to find that one of my best games, *Zool*, did not support it!

I feel that hard drive support is an optional bonus, since hard drives are relatively new to the Amiga as standard, but many users have had extra drives since way back.

Companies should support at least extra floppy drives! Come on, people, let's get with the program.

John Gibbs, Yanbu, Saudi Arabia

We are in complete agreement. Since about 1989, AC has considered its average reader to be someone with an A500, probably expanded to 1MB, with an extra floppy drive.

Lately, with the resurgence in hard drive popularity and 2MB Amigas, that theoretical average equipment level has risen, but a games company releasing a game in 1993 which doesn't recognise a three-year-old standard is doing us no favours.

It is a step we do not want to take.

If you get your local newsagent to stock the magazine, you can guarantee it will be either before or behind the counter where prospective thieves can't reach it. Big high street newsagents are great for range of choice and convenience, but it is this sort of store which is most prone to disk-nickers.

The company we quoted as a supplier of Bengali fonts has since gone very quiet and we no longer know if it is still in business, so here's an extra place: can someone please let us know of a reliable supplier of scorable ethnic typefaces? There's an expectant market out there!

Pet hate

I hate hard drives, or at least the unstable variety.

Three days ago, I was near the end of a 50,000 word story when my hard drive, after two years of faithful service, popped its chips, shuffled off this mortal coil, and generally expired.

Repeated attempts at resuscitation through the good offices of *Disksalv* retrieved some files and data, but the majority were lost and after six hours of arduous struggle I was forced to raise the white flag and format the bastard.

All I have left of my 50,000 words are a few pages of print out (barely 5,000 words' worth), and an early file of the first chapter.

As I said, I curse all hard drives to the ninth circle of hell and back. OK, so I should have backed the damn thing up, but last time I did that using *Quarterback 4.0*, the eighth floppy in a series of over thirty developed a read/write error, thus rendering the backup useless.

AAAAAargh!

Mr Excruciatingly Angry, Bournemouth

Club corner

This month's club is the North Wales Computer Club, who celebrate their birthday soon at a third annual open day to be held at the YMCA, Queens Drive, Colwyn Bay on November 13. Attractions will include trade stands, software demonstrations, and hardware displays.

In a rare and much needed display of computing for the less fortunate, a Special Needs User Group stand will be offering help on how this area of computing can be aided.

Further details are available from Bob Lang on 0492 530594.

Another great offer from a manufacturer you can trust



DISK DRIVE £49.95*
CAX 354

**Price includes VAT and delivery*

- **High quality**
- **Renowned and proven reliability**
- **Styled plastic case**
- **Low power consumption**
- **Throughport facility for addition of further drives**
- **Suits any Amiga**

Order with Confidence

- ✓ **All Cumana products carry our 30 day money back guarantee**
- ✓ **All products carry our 12 month warranty**
- ✓ **All inclusive price**

Cumana reserve the right to increase the price at any time. This offer is subject to availability.

NAME _____	ADDRESS _____
POSTCODE _____	TELEPHONE NO. _____
I would like to order CAX354 Disk Drive(s) at £49.95 each	
Please debit my ACCESS/VISA card (please delete):	
Number _____	Expiry date of card ____ / ____
Signature _____	
Cheques should be made payable to Cumana Limited. Orders may be placed by telephone - 0483 503121, or by fax - 0483 451371, or sent to - Cumana CAX 354 Offer, Pines Trading Estate, Broad Street, Guildford, Surrey GU3 3BH.	



Manufacturers of quality products since 1979



SPECIAL XMAS OFFER

Buy any two titles and **SAVE £15!**

Maths (Algebra)

For children 6 to 16 years

Covering many areas from Attainment Target 3 of the National Curriculum, the 10 out of 10 Maths (Algebra) package is packed with subjects, levels and activities to challenge all children from Key Stage 1 right up to Key Stage 4.

Following sequences, interpreting graphs, solving equations and numerous other algebraic skills have never before been so much fun. This is the fun way to practise and become fast and proficient with the manipulations needed for high examination marks.



Junior EssentialsTM

For children 5 to 11 years

A truly flexible package covering many topics essential for building a good educational foundation. The areas covered have been carefully chosen by a team of experts and from several subjects and levels of the National Curriculum.

The child's progress in these areas is constantly monitored and recorded and parents or teachers can easily discover where a child needs help. As with all the 10 out of 10 series, further motivation to play the games and learn more is added in the form of High Score Tables.



Dinosaurs

For all ages

This package is the fun way to learn the truth about dinosaurs. The six games all have superb digitised graphics to make a whole area of history - dinosaurs - come alive. If you came face to face with a tyrannosaurus would you run away? Or are you safe because it's a vegetarian and wouldn't 'eat' you? This, together with 1000s of other interesting facts, can be discovered from this enthralling package. The six games - all with single and multi-player options - are educational fun for everyone.



Maths (Number)

For children 6 to 16 years

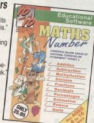
"Well thought out to offer real benefits to children studying in British schools." - PC Plus July '93

"Educationally worthwhile and exciting to play - a rare combination." - Archimedes World (December '93)

"Unique in home-based programs because of the National Curriculum link." - The Micro User (September '93)

"Excellent for reinforcing specific mathematics knowledge." - Junior Education (July '93)

"The 10 out of 10 Series lives up to its name." - PC Home (August '93)



Early Essentials

For children under 7 years

"Outstanding. All of the activities are not only very enjoyable but they're well thought through. It's one of the best multi-purpose infant packages I've seen in a long while. If you have young kids get it for the home. If you're a teacher, hammer on the headteacher's door and beg for money to buy a copy!" - Archimedes World (July '93)

"At just £25.95 you'll be hard pressed to find anything which even comes close to Early Essentials."

- Micro Computer Mail (Sept. '93)



English

For children 6 to 16 years

"Everything being done is relevant to the player's experience. An invaluable curriculum experience, plenty of fun, lots of variety." - PC Home (November '93)

"Quaranteen to sustain the attention of even reluctant learners." - RISC User (January/February '93)

"Most important, as the games are fun, children can't help but learn."

- Acorn Computing (March '93)

"Allows progression from Junior school age right up to GCSE level."

- Acorn User International (Sept. '93)



Maths (Statistics)

For children 6 to 16 years

Attainment Target 3 of the National Curriculum is Data Handling - a vital area of Mathematics. 10 out of 10 Maths (Statistics) covers 30 specific topics from that subject.

In this package, recording animal sightings in an animated pond or rolling dice are just two of the many challenges that children will enjoy as they learn about statistics. And can graph drawing be a game? It becomes arcade action as bombs and bombs are dropped onto the charts. This is a really enjoyable way to learn about statistics.



French

For children 6 to 16 years

This suite of six educational games will give fun and motivation to all children learning French. The package is designed for the Modern Languages National Curriculum firmly in mind and contains many challenges to reinforce facts stated in Attainment Targets 3 and 4.

10 out of 10 French is essential for children on Key Stages 3 and 4, but the numerous parent and teacher customisation options make the software suitable for all children - however young - who are learning the French language.



Driving Test

For all drivers and learners

Whether you're a novice learner or an advanced expert there's plenty you can learn from this package. There are thousands of questions and you can choose whether you want to answer them directly or add to the fun by trying them with games.

The six games have been designed to be fun for all adults and include strategy, mental agility, coordination and more. And, if you think you are up to it, you can 'take the test' - a challenge covering many areas of the Driving Test.



The INNOVATIVE 10 out of 10 Series

These highly acclaimed suites of programs are a revolutionary step forward in educational software. They ALL use a unique system of automatically recording children's progress as they play and learn. This is just one of the many features which sets the 10 out of 10 Series in a class of its own.

Each package contains SIX expertly designed educational games covering TEN essential areas of a child's education. All packages cover a wide age range and subjects are available for all children from three to sixteen years of age.

As children learn from the games their progress is automatically recorded in 36 specific challenges - the National Curriculum Attainment Targets of these areas are optionally displayed on screen in subject-based packages. All the programs are designed in Britain to be fun for single players or groups and the assessment system can monitor the progress of up to 4000 children with no input from parent or teacher needed. Watch them, join in the fun or leave them and return later to check their progress. You're in control!

Already used in over 6000 schools

FREE TRIAL AVAILABLE

We are so confident you'll like 10 out of 10 software that we'll let you try it FREE. Ask for a free trial* and we will not bank any payment until you've had chance to test the programs yourself.

You can EARN MONEY by recommending 10 out of 10 over £5 for every order you generate. Ring 0742 780370 and ask about the 10 out of 10 Agency scheme now!

HOW TO ORDER ...

Each package is ONLY £25.95 and you can order by CREDIT CARD, CHEQUE or EDUCATION AUTHORITY ORDER. If you order two titles, deduct £15 from the total. If you ask for a free trial* we will send you the software without processing the payment. If you do not wish to keep the package simply return it to us within 14 days and we will return your ORIGINAL cheque or order or not process your credit card for payment.

SAVE £15 IF YOU BUY TWO TITLES!

Order by Post or Phone from:

10 out of 10 Educational Systems

1 Percy Street, Sheffield, S3 8AU

0742 780370 / 769950

Site and Network Licences are available - please ring for details.

*The free trial may not be used in conjunction with any other offer.

Phone 0742 780370 or 769950 to order

Xmas offer: BUY TWO and SAVE £15

The 10 out of 10 Series is available for Acorn 32-bit computers (Archimedes, Amiga and IBM/PC and compatibles). If you buy any two items before Xmas 1993, £15 will be deducted from the total price. At the time of going to press, titles marked * were not available on all formats and may not be released before Xmas. They may however be ordered at the offer price. Please ring for availability.

The 10 out of 10 Series is available from all good computer software suppliers

For the occasional high quality graphics project, it makes sense to send your creations to a print bureau (such as Alternative Image - 0753 440041) for output onto 35mm transparencies.

Unfortunately, although by far the best quality method, it's also the most costly, especially for limited numbers - and worse still, the turn-around can often be up to a week.

In the past the only alternative was to use a 24-pin printer or a desktop capable of colour output. Unfortunately although fine for graphs, charts and colour text, such printers invariably fall short when it comes to photo-realism.

What was required for the hordes of Amiga artists was a dedicated high quality graphics printer, and with the arrival of the new Fargo Primera, the long wait is finally over.

Considering the quality of the Primera's



Primera's output is good enough for presentation portraits and glossy colour print-outs from Amiga packages



The hatstand

A story in two parts
By Mr. Unsworth

A bicycle is a machine to ride on. It is also called a "bike" or a "wherry". It has two wheels, one behind the other, and that is how it got its name, because "bi" means "two" and "cycle" means "wheel".

In line by a meter fence. The rider sits on a little seat that is like the rear wheel turn by pushing pedals up and down with his feet, and in Europe there are more bicycles than automobiles.

People from all over the world come to ride a bike, or can be taught to ride it in a few days. The most important thing to learn is how to balance.

When the pedals of the bicycle are pushed go around. This little wheel is attached to the bicycle, so the rear wheel turns too and the "coaster brakes". Pressing the pedals up and down the rear wheel turns freely while the "coaster" turns of. This lets one "coast" down a hill. If the pedals are pushed down the "coaster" will slow down the bicycle or stop it. Coaster brakes, called coaster brakes, that are on the pedals.

Bicycle racing is still one of the most popular sports in Europe. Racing bikes are very light and have a smaller pedal wheel, which makes the gear ratio and makes them go faster. A once popular kind of indoor racing was the Skyline Blue Race. A pair of

BLUE CHIP AWARD

Glossy graphics

Prepare to drool as Paul Austin provides an exclusive look at the latest in colour printing technology

output, the printer itself is unbelievably small. To give you an idea, close the mag, place it on a table and add maybe an inch all-round and you're there.

Allow a little space for twin feed and paper trays and you've got not only one of the most compact but arguably the most attractive - not to mention powerful - printers on the market.

As for the set-up, life couldn't be much simpler with a standard RS232 cable to the Amiga, a power supply, the cartridge and paper trays - all done in a couple of minutes.

Although easy to install, the ink cartridge is certainly unusual consisting of what appear to be twin kitchen rollers, linked by a continuous wax-based ink ribbon.

Although this sounds a potentially messy system, the printer employs a heat transfer method which means the ribbon is dry to the touch. Even stranger than dry ink is the application of colour - which in many ways is more akin to scanning than normal printing. In order to produce full

colour image the Primera will make up to four passes over the specially treated A4 thermal transfer paper or transparency film.

In order to achieve this the four colours - cyan, magenta, yellow and black - are laid line-asterm wrapping around the source roller connecting as a constant sheet to the take-up roller.

SPOOLS

To load the printer you simply place the source and take-up spools into position on the removable cartridge, which then drops directly into a large bay area which dominates the middle of the printer.

For those planning to alternate between colour and mono ribbons Fargo will supply a spare cartridge, so swapping formats will simply mean popping the lid, removing and replacing with the spare.

Assuming your paper is loaded and the printer is powered and on-line, you're ready to print. As for the two examples, ADPro/TruePrint 24 was used for the portrait while Final Copy provided the spoof proof of Miss Pfeiffer.

However it must be stressed neither of the two packages are essen-

tial, as any program capable of using preferences can take advantage of the Primera thanks to a custom driver which comes as part of the package.

Although compressing an image from A4 to the size you see invariably improves the overall look, the full size output is easily the best colour hard copy yet available for the Amiga.

The question is: How much are you willing to invest to enjoy the glossy output it provides? First there's the cost of the printer itself, add the ribbons and of course the special paper or transparency film and the Primera falls squarely into the pro market.

At present the Primera is limited to 203dpi with its existing Amiga driver. However a photo-realistic kit is already available for the Mac and PC which quite liberally does as its name suggests.

Unfortunately the Amiga driver is still in development, but rest assured as soon as the Amiga version arrives it will be thoroughly tested in Amiga Update.

As you may have noticed, I'm very impressed by the Primera. The output is

excellent and reasonably quick at around two minutes a page, and the registration of the component colours is again excellent. My only concern is that this could degrade with prolonged use.

In short, for those who don't actually make money from their artistic exploits the Primera is just a tad too expensive. Having said that, if you can envisage recouping your investment in the form of T-shirts, projector slides or framed 24-bits, the Primera is the latest "must have" dream machine for any Amiga artist.

AC

Consumables rundown

CMY colour ribbon providing 115 prints	£45
CMYK colour ribbon providing 80 prints	£45
Mono ribbon providing 400 prints	£40
Paper: per 200 sheets	£15
Transparency: per 50 sheets	£35
Photo-realistic upgrade kit	£249

● Thirty-print CMY colour ribbon plus 25 sheets thermal and five sheets of transparency film come as part of the package.

Product: Primera colour printer
Supplier: Power Computing
Phone: 0234 843388
Price: £1,051.62

Implementation: 10
Easy of use: 10
Value for money: 7
Overall: 9

It seems that everywhere you turn these edays a new low cost 24-bit card is popping out of the hot little oven of graphics development. As professional users demand a better true 24-bit display from their machines and find that AGA does not meet all their needs, a succession of manufacturers have attempted to fill the gap with cheap cards that do just about anything.

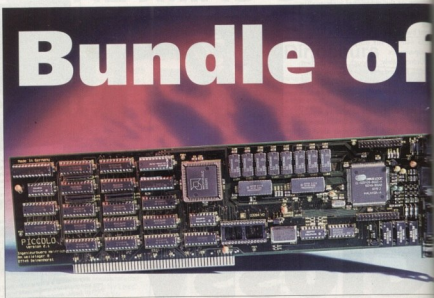
Piccolo is the latest to boast retargetable graphics (RTG), Workbench emulation, and a bundled paint package, but this time there's a bit more to the act. Among other things, Piccolo offers its own on-board blitter, and the software supplied free with the package is superb.

Sitting on a Zorro card, Piccolo will automatically sense whether it is in a Zorro II (A1500/2000) or Zorro III (A3000/4000) slot and change its mode of operation accordingly, so it is compatible with any of the larger Amigas and works well with all of them. In what is fast becoming a standard display technique, video signals are fed from the Amiga to the board, then passed on to the monitor.

This method allows for a simple pass-through when the board is not being used and makes possible a pain-free single monitor set-up. In addition, though, it has the much more pleasing result of making the board transparent to the user, and after only half an hour one could be forgiven for forgetting there was a card in there at all.

Software is supplied on four disks and includes a wealth of high quality material. The EGS libraries and utilities form the main system software and enable Piccolo to function, and two paint packages top off the bill. Installation is painless, and the novice should find little to worry about.

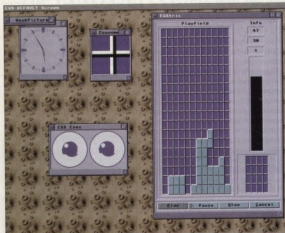
My only concern here is with the EGS libraries. These are crucial to the operation of any board which uses them for RTG or intuition support, and having encountered them several times over the past couple of months, I've been less than impressed on occasion with their reliability.



ity. Viona Development bug-fix and upgrade the libraries constantly, and the latest release is much more stable than the first software we saw at AC, but there are still problems. On installation, EGS refused to function on the A1500, but when Piccolo and its software were transferred to the A4000 everything worked fine.

PROMISING

Inconsistencies of this kind are a bane and exactly the sort of thing to kill a piece of hardware or software before it has a chance to develop. If this happened to EGS it would be a great pity, because EGS not only promises compatibility across a number of graphics cards, but a smooth and pleasurable working environment.



EGS provides a default work environment and a few hacks

Bundle of

The Piccolo 24-bit graphics card offers good hardware and a great software collection, as Stevie Kennedy found out

Apart from the initial hiccup with the A1500, Piccolo's software was stable during most of the test with the exception of Workbench emulation, which will have to be worked on. Many programs refused to work under EGS, and some even caused a crash.

In particular, the retargeting utility found problems with packages which open more than one screen at the same time under different resolutions.

ADPro and ImageFX were prime offenders, the former bombing out when a preview screen such as Crop Visual was opened, the latter flipping out at startup.

Piccolo loaders and savers are available for both these packages, so the problem can be circumvented, and there are libraries for use with Real3D and Imagemaster.

However, EGS still doesn't have Workbench emulation good enough to match that offered by Retina or Picasso, and the retargeting utility does not offer control over refresh modes.

Although a last ditch method to coax unco-operative programs into life on an RTG card, editing the way the board displays each program individually is the only way to sort out glitches such as those which afflict Imagine when running under both Picasso and Piccolo.

Both cards will redirect Imagine to the 24-bit display where things move along a little faster and smoother, but when moving an object on-screen, a trail of orange

lines is left behind or a wave of corruption makes it difficult to see what's going on in detail. The program is still usable, and redrawing the screen using AmigaG forces a refresh to get rid of the corruption, but it comes back with every subsequent

TV star

The second paint program bundled with Piccolo is the EGS version of TVPaint jr, a tried and tested package with a name for reliability and power. The junior version is not so much cut down TVPaint as an older version without the advanced features found in TVPaint 2.

Most surprising of all, considering that this is supposed to be a budget or bundled version, is that the alpha channel works perfectly. This is one of TVPaint's most useful and powerful features, and provides a 256-level linear keying process between two images using a greyscale mask.

Using the alpha channel, images can be made to fade in and out gradually as the transparency of the mask changes with the greyscale used, and entire page pages can be turned into an alpha channel for superb image compositing results.

Most of the original TV Paint's fe-

joy

operation.

Letta, who's software and emulation seems more stable than any at the moment, doesn't have this problem, and the other RTG cards could take a lesson or two from its willingness to give users the power to edit individual screens.

Despite reservations about the current state of EGS, which should improve as the libraries are updated, when it works it is a joy to use. Viona Development are compiling a new release of the libraries as I type and boards distributed from now on should have the improved software. Nothing illustrates better the potential of EGS than the bundled paint package, *PicoPainter*.

Running from a Workbench icon and opening on the Piccolo's display, Painter



The potential for EGS is adequately demonstrated by PicoPainter

is an EGS package from the ground up, using all EGS gadget boxes, intuition drivers, and screen modes. It is therefore very stable and benefits from the advantages of the EGS way of working.

24-BIT IMAGES

With a 2Mb Piccolo, this means that full size 24-bit images can be opened in their own windows, as many as the user likes, and brushes cut and pasted between them. In addition, the package would appear to make full use of Piccolo's blitter, as screen update is very fast for a 24-bit package and all movement and dragging operations work in full colour.

When, say, the palette requester is on-screen and is dragged to another position, it doesn't change into a highlighted box, but instead is dragged smoothly and with no fuss around the screen.

Brushes are likewise smooth and easy to use, and can be stored in a preview box at the bottom of the tool box until needed.

As every file has its own window, the user can scroll around an image using the cursor keys or simply pull the drag bars to the required position.

This is not only very quick, but also negates the need for a big edit function, and means that when working across two or more images the artist never has to jump between spare pages or scroll around a huge page looking for the other pictures.

Painting tools are on the whole very good, though there are a couple of serious omissions. No anti-aliasing for text is one booby, as is the absence of a gradient fill option, but the rest of the package is so smooth and easy to use that one can almost forgive what in another paint program would result in a hurried trip to the bin.

The airbrush tool is a particular delight, with full control over the size, power, and form of the nozzle. Thin lines of paint surrounded by wisps of thinner colour, rings of colour, and the more traditional spray can effect are possible, and the user can create new effects using the control panel if necessary.

NO WAITING

Brush operations are standard, with shear, flip, re-size, and rotate working as you'd expect, but in keeping with everything else there's no waiting around for a brush to reappear once rotated. Painter takes care of business very quickly.

I would have liked a perspective tool and perhaps some sort of brush feathering option, but to be fair to the package, these are usually the domain of expensive add-on packages such as TVPaint 2, and PicoPainter is after all a bundled program.

Other features which stand out are the program's use of convolutions and colour processing controls. These are similar to those used by other packages and work well, if in a faintly *déjà* old way, and the

embossing effects one can wrest from them are impressive.

When you combine a fast cheap graphics card with impressive software the likes of which this board boasts as a freebie, you have a winning package which should grab for itself a chunk of the 24-bit display market.

The £130 video module, when released, will also provide Piccolo with direct composite and Y/C output from its as yet unused connectors, and when this happens there is every possibility that Piccolo might become an impressive video performer into the bargain.

For the moment, Piccolo would benefit from an improvement in the EGS libraries and in particular some close attention to the reliability of the EGS Workbench emulation utility. Until this is brought up to the standards of Picasso and Retina, EGS cards in general will lag behind, despite the huge potential of the software.



A winning package which should grab a chunk of the 24-bit market



TVPaint is one of the best bundled paint packages you could wish for

features are also present and in full health, including the all-powerful density gadget, which not only provides for gradually fading colours, but can be used to "feather" a brush into the

image. With the use of a density setting, the user can blend brushes from various origins with the present image and there needn't be an ugly hard edge in sight.

SYSTEM ESSENTIALS

3D+ Essential YELLOW is Recommended

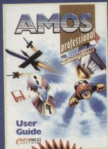


The bottom line

Ease of use 8
Implementation 8
Value for money 9
Overall 8

Supplier: Ramiga International
Phone: 0782 398940
Price: £399 (1Mb VRAM)
or £499 (2Mb)

Your last chance to take up some amazing AMOS offers...



Amos Professional Compiler

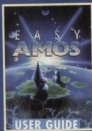
Simple-to-use Amos Pro Compiler gives your creations a kick-start, it compiles in seconds and can squash them by up to 80%. This is the updated and considerably improved version of the original Amos Compiler.

Amos Professional Compiler includes:

- 200 more commands than the original Amos Compiler
- Update to the latest version of Amos Professional
- Comprehensive user guide, plus technical support back-up

Among many superb features, Amos Professional can help you to compile programs using the intuitive user interface and compile Easy Amos, Amos and Amos Professional programs using the stand-alone compiler from the Workbench. It can also help you to write programs incorporating many calculations which can run up to five times faster.

Only
£24.99
RRP
£34.99



Easy Amos

Bring your Amiga to life in the first steps to programming with Easy Amos, a friendly, easy-to-use beginners guide to programming. Easy Amos will quickly teach you how to:

- Produce impressive graphical effects
- Create and animate colourful

- objects
- Scroll large text across the screen
- Make your Amiga actually talk to you
- Add exciting music to your creations

Only
£22.49
RRP
£34.99

Mastering Amiga Amos

This superbly written guide is suitable for anyone using Amos, Easy Amos or Amos Professional. If you are a novice programmer or looking for the next step after BASIC then Amos and this step-by-step tutorial is for you. Phil South provides a fascinating introduction, looking at all the main features, with plenty of example code for experimentation. You will find Mastering Amiga Amos a handy reference and source of programming ideas.



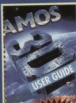
Only
£15.95
RRP
£19.95

AMOS 3D manual

If you have the complete Amos 3D software from last month's Amiga Computing CoverDisk, why not make the most of it with our special manual offer?

With over 100 indispensable pages, this comprehensive ring bound manual will really help you to get to grips with Amos 3D.

- Please note that this is the original manual, not a photocopy.



Only
£7.50

To take advantage of any of these Amos offers simply fill in this order form and send it to Amos Offers, Europress Enterprise, Europa House, Adlington Park, Macclesfield, SK10 4NP. If you are paying by credit card you can phone 0625 878888 between 9am and 1pm or fax 0625 850652

All of these packages require 1Mb of RAM

Amos Professional

All programs written using earlier versions of Amos and Easy Amos can be loaded into the vastly enhanced Amos Professional. This latest package includes more than 200 new commands, taking the total up to well over 700. Amos Pro is essential for the more experienced programmer, and includes a 650 page manual to get you started.

A Unique feature is the on-line help which provides details

on the command at the cursor position – and another click takes you to a thoroughly documented working example featuring that command.

Amos Pro also features:

- A new editor featuring drop-down menus, keyboard macros, and more
- IFF animation playback
- AREXX support
- MED music library support
- Two example disks



Only
£34.99
RRP
£49.99

Order form

Please send me...

- ☐ Amos 3D manual at £7.50
- ☐ Easy Amos at £22.49
- ☐ Amos Professional at £34.99
- ☐ Amos Professional Compiler at £24.99
- ☐ Mastering Amiga AMOS at £15.95

I wish to pay by...

- Cheque / postal order payable to Europress Enterprise Ltd

● Credit card

Expiry date

Card No

Deliver my order to...

Name

Address

Postcode

Daytime phone

Allow 28 days for delivery

- ☐ Tick this box if you do not wish to receive promotional material from other companies

Liberator attack

I recently bought a couple of disks from a PD library and was dismayed to find not only that the order arrive short by a disk or two, but that two of the floppies had the Liberator virus on them.

The version I received appears to be a new one, and performs the following undesirable operations on a hard drive system:

1. Disables Virus Checker, including v6.30.
2. Writes a small file called *fastdir* to the root directory.
3. Copies itself to the C: directory as *Pvr* (not *Pvi* as stated by some Virus Checker discs).
4. Inserts a line in the startup-sequence that reads 'br Pvr'.
5. Writes itself to any writable bootdisk disk inserted in the machine.
6. From time to time it alters every protection bit on every file on a floppy, not necessarily a bootable one, apparently chosen at random, so that only the archive bit is set. In other words, you can't edit, copy, or delete any files until you've gone through the hassle of setting the protect bits straight.
7. It launches small background programs which appear to do nothing but slowly eat memory and slow down applications by using up processor time. I first noticed this when PageStream started to run slower and slower for no apparent reason.
8. If you run a program which examines the tasks in operation and their processor usage, Liberator instantly switches all tasks off, thus preventing you from seeing what is going on.
9. Liberator can be destroyed by booting from a write-protected floppy containing Virus Checker 6.30 and using the LinkFile scan option on your hard drive. Having Virus Checker 6.30 running in the hard drive startup-sequence will not protect you.

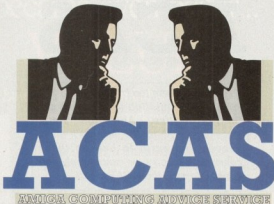
Christopher Light, St Leonard's-on-Sea

Sorry to hear you're having such a nightmare with this virus. As you say, Virus Checker 6.30 will do the business on the little scumbag, but BootX v5.32 and over is just as good. Liberator is a menace which has popped up in various guises, and one which we had to fight off a couple of months ago in the AC offices when it sneaked onto a hard drive right under the nose of Virus Checker 6.29.

This latest Liberator is a perfect illustration of how quickly a virus killer can become obsolete in the face of new viruses, and underlines the need for all responsible owners to register their virus killer programs with the author.

Regular updates are your reward for a small shareware donation, and given that a nasty strain of something might otherwise run data and programs on a massive scale, the price is a very small one to pay.

From viruses to thunderstorms, we've got answers to all your problems, natural or otherwise, from our team of experts



Robot builder

I have been trying for a while now to hook an old robot arm to my Amiga 600 and so far have failed. I bought it as a toy/education tool for my son about five years ago and it's been in a cupboard ever since.

Now I reckon I can hook it up to my Amiga, like the robot arm you reviewed a while ago, but though I know a bit about Amos, I'm not sure how to go about addressing the serial port, or what extra hardware I need to get the thing to listen to me. Can you help?

Peter Wittington, Walsall

Your best bet, unless you are a fairly advanced programmer, is to contact Switchcraft, a company specialising in hardware projects such as controlling lights and so on from the Amiga.

They can be reached on 0325 345752 and should be able to supply you with the relevant switching boxes and a few hints and tips on sending Amiga signals via these boxes to external devices such as your redundant robot arm.

Go forth

I've been programming in Basic for a few years now, and would like to use it to create a suite of simple analysis programs to help me with my postgraduate work. Not being a programmer, I've heard that Forth is good for this sort of work, but I've never seen an Amiga version of it and have no real information on it.

If you could point me in the right direction as regards a copy of Forth, or at least tell me if it's worth my while bothering with it, I'd be grateful.

W McFadden, Bristol

Forth was originally developed as a dedicated language for controlling radio telescopes, and its only two notable forays in the home computer market happened in the early 80s.

It was used as the built-in language for the Jupiter Ace micro, a short lived Spectrum look-alike, and formed the heart of the White Lightning programming package, which tried to do for the 8-bit micros what Amos and Blitz Basic do for the Amiga. On the PC there are a few commercial implementations, but the Amiga has never enjoyed this sort of Forth support.

The only Amiga Forth interpreter I've seen is [Forth, which is supplied by

Delta Research
PO Box 1051
San Rafael
California 94915
Phone: 0101 415 461 1442

Special agent

I think I may have blown it big time. I have a digitiser which fits to the floppy port to draw power, and the cable recently got a little bit frayed. To fix it, I cut the end off and re-attached it, but it looks like I did it wrong.

There was no bang or puff of smoke, but ever since trying the digitiser again I find my extra floppy won't work. Have I damaged my Amiga?

G Bates, Peterborough

You may have tried a CIA chip, the custom chips which control input/output to the ports on the rear of your Amiga, but this is quite difficult to do. Digitisers won't send power back through the port, so a badly wired cable should really only result in no result - try again.

If a short circuit has blown the chip, you can check with a multimeter to see if the port is dead, using the pin out diagrams at the rear of the Amiga manual.

This won't tell you much, so the best course of action would be to have your machine checked by a local dealer. If they can't fix it on the premises, they should know a recognised repairer who can.

Alternatively, you can contact Helios Software in this country on 0623 552828.

As for the language's suitability, its use of stacks and reverse Polish notation make it the fastest high level language for maths calculations, so it may well be the best choice for your analytical work.

Hard hatting

Having lost data on two occasions due to hard drive failures, I'm beginning to lose faith in them. The first was a mystery which I put down to vibration damage, though how it happened I don't know, and the second was caused by a power spike during a recent thunder storm.

I had been playing Gunship 2000 when there was a flash, the lights went off, and my Amiga ground to a halt. As the thunder roared outside, I re-set the trip at my main fuse box and turned the machine back on with a nonchalant air. I mean, I had a trip switch and two fuses between the Amiga and the mains, so what could go wrong?

Imagine my despair when the drive reported checksum errors, then read/write errors! What happened and how can I prevent this sort of disaster ever happening again?

A Luszjar, Birmingham

You must be one of the most unlucky people around. Power spikes of this sort are rare, even during thunderstorms, and for it to harm your Amiga is even rarer.

It seems more likely that the hard drive is reborn of power as it was writing data, but as you were playing a game at the time, this may not be the case.

Power surge protectors can be used to cut out the possibility of power surge damage, and are useful in areas where the power supply isn't to its usual reliable standards. PSPs are in effect just very large capacitors which will soak up the surge and release it in a controlled fashion, and they work fine.

You probably don't need one, and the odds of this sort of thing happening to you again must be very remote, but for peace of mind you could try scanning the ads in a PC magazine, where PSPs can normally be found for sale.

Blow out

Three days ago, my A500 blew up. No, really, it blew up.

I was sitting playing a game when a loud pop was followed by a cloud of smoke from the top of the machine, and the Amiga went totally dead. There was also a cloud of sort of fluffy stuff not unlike loft insulation.

Having no money, I asked a friend who repairs TVs to take a look and he reckons it's a blown capacitor. There's a single component with its top blown off near the floppy drive and if he can get the correct replacement he says he can fix my beloved Amiga.

Is there any danger, do you think, that by fixing this capacitor we will simply leave the machine open to the same thing happening again? Could another more vital component be damaged if I just go on replacing the capacitor instead of finding the source of the fault?

A Fraser, Aberdeen

When a capacitor blows, it can go through old age or because it was subjected to current and voltages outside its rated maximums. If the former, a simple replacement job is fine, but if the latter there could be a much more serious fault which needs correcting urgently.

Try replacing the capacitor at first, but if there is any repetition, take the machine to a repair shop at once.

ECS blues

Owning an A500 with Workbench 1.3 is becoming a bit of a bind, and I've been considering moving up a notch. However, as the A600 is a turkey and the A500 Plus is difficult to find these days, I've been looking at ROM switchers.

I've heard that some of them don't work as well as they should and that

some programs don't work with some switchers. Is this true? I'd buy an A1200, but as AGA seems to me to be a stop-gap before the AAA chip set is released next year, I don't want to be stuck with another obsolete machine.

Will I be able to use Productivity mode when I get a Kickstart 2.04 ROM?

Warren Tate, Newton-le-Willows

I don't know of any problems with ROM switchers and incompatibility. As the name suggests, a ROM switcher is more or less a completely mechanical device and shouldn't have an effect on the Amiga other than to change Kickstart ROMs. This will, of course, cause certain compatibility problems in itself, but the ROM chip rather than the switcher will be the root of this.

We don't share your sentiments about AGA. It is no more a stop gap than this

year's Ford models are a stop gap between the 1992 range and the 1994 range. If the A1200 was the last Amiga development we were going to see for a couple of years, it would be very bad news indeed, because continual development is the only way a machine can survive in today's fast moving world.

As for Productivity mode, you'll need both Kickstart 2.04 and the Super Denise chip to make use of this and other ECS screen modes.

Dumb card

A friend of mine has a PC laptop which utilises the same smart cards as the A1200, and he has a 64k battery backed up SRAM card and a standard 1Mb card.

Both work perfectly and both enhance the way the laptop works, yet when I try them on my A1200 they're not nearly as

Serial printer

I have the opportunity to buy a cheap old printer for next to nothing, but I don't know what make it is. The casing is unbadged, though the printer ribbon looks very similar to standard Epson types, and the only clues to its use are a set of DIP switches and a serial interface with a six-pin cable connection.

I think it was used in a council office churning out listings, so it should at least have a fast draft print rate, but can you tell me if there is any way of connecting it to my Amiga?

L Crichton, Cleveland

The connections for the printer's serial cable should be easy enough to suss out. What you have is probably an old Mannesman or Epson printer, some of which used a six-pin serial interface.

Lightwave, a company specialising in cables of all sorts, stock a six-pin to standard 25-pin D-plug cable which will allow you to connect the printer to the Amiga's serial port. Phone them on 051-630 5003, ask for part number MCL-532, and you should be on your way.

Just make sure that there is no gender clash between the cable and the ports (adaptors are available if this is the case), and use an Epson or Mannesman Tally printer driver. You might not get top class results, but the printer should serve well enough for listings, letters, and so on.

good. Rather than making the machine run smoother because it has more memory, it seems if anything to go slower, and I was very disappointed. Why is the A1200 so bad at using smart cards?

B Morrison, Wellington

The A1200 is fine at handling smart cards, it's just that the cards themselves are pretty stupid.

PCMCIA cards are 16-bit and they talk to the Amiga across an 8-bit data bus. This means that as far as memory goes they are slower than the chips built into the A500, never mind proper 32-bit RAM connected to the A1200 trapdoor.

Any A1200 program running in the fast RAM provided by a smart card will run slower and less smoothly than if the card was removed, so forget about PCMCIA for memory purposes.

If the cards worked well with your friend's PC laptop, I would hazard a guess that the laptop was a 286 clone, and therefore based on the same 16-bit technology as the RAM cards.

Pricey monitor puzzle

If, as most reviews say, the 1942 monitor is a bi-sync and will display all AGA screen modes, why don't Commodore retail it as a cheap replacement for the 1084? It uses the same case and sound circuitry, so why is it so expensive?

Fair enough, it has a better tube, but a lower price would result in much higher sales (they must have sold thousands of 1084s), thus keeping cash flow healthy if nothing else.

When a company is in the sort of financial hole Commodore have dug for themselves, surely it makes sense to cut prices and sell aggressively in bulk?

On a more technical note, how do I work out from my screen resolution the frequency needed to display it?

Adam Guthbertson, London

Commodore's reasons for the marketing decisions they take are never easy to work out, but the reason for the 1942's relatively high price point is given in your

question. The 1940 has a dot pitch of about .39, the same as the medium resolution 1084, though it is capable of screen modes the 1084 would not handle. The 1942 monitor, however, has a much better dot pitch of .28, similar to SVGA monitors, and thus has a much better quality, and more expensive, CRT. Easy answer, eh?

Calculating vertical frequencies is a simple matter of multiplying the number of lines the scanning beam must draw by the number of times it must do this per second. Using a 50Hz refresh rate, the calculation comes to:

$$\text{number of lines} \times 50 = \text{vertical frequency}$$

So, for example, the maximum vertical overscan size of a hi-res no flicker screen is 550 lines. This multiplies by 50Hz to give the vertical frequency of 27.5kHz. Your monitor would have to be capable of accepting signals of this frequency before it would display this mode.

The Best Selling Word Processor and Database just became even better... **VALUE!**

Since its launch, Pen Pal has become the most popular package of its type

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

Pen Pal

A superb package, with immense power, to fulfil all your Word Processing needs, and... with an integrated Database too! It's all so easy to use, you'll rarely need to refer to the extensive 250 page lay-flat spiral bound manual. Users frequently tell us that they've never found a program they get on with so well.

THE WORD PROCESSOR: You can... Open multiple documents simultaneously; search and replace; cut, copy and paste; check your spelling with a 110,000+ word dictionary; import your favourite IFF/HAM graphics, from programs such as DPaint, or Clip Art files in various sizes and colours; automatically flow text around graphics in any Workbench compatible font (there are over 200 available styles) in different sizes and colours to suit your design... Even as you type!

Full Page View with position, edit and creation of graphic objects and extremely useful forms designer. All this from a word processor and... Much, Much, More! As you can see from the documents shown on the left, this is no ordinary program!

THE DATABASE: With 32 fields per record, 32,000 records per database and a fast sort of 1000 records in less than 5 seconds, this is a real database. Mail merging into the Word processor couldn't be simpler, with easy creation of templates for letters or reports, into which information can be merged.

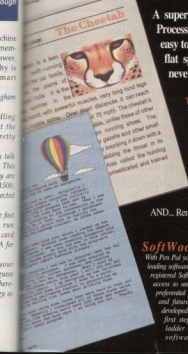
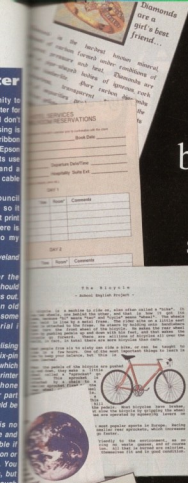
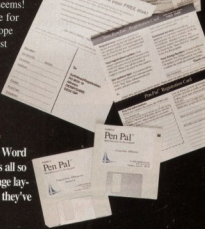
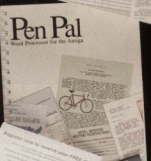
AND... Remember, Pen Pal comes with full support for the new or experienced user completely free! Friendly help for all registered owners is just a phone call away.

SoftWood - Quality software for your Amiga

With Pen Pal you're not just getting a one off product! SoftWood are acknowledged as the World's leading software company who develop just for Amiga and not other systems. Once you're a registered SoftWood product owner your investment is protected as you'll have access to unlimited free technical support (others charge you!) and preferred upgrades to other SoftWood titles, both existing and future. Exciting new products are being developed right now, Pen Pal - your first step on the SoftWood ladder of Amiga software.

Pen Pal is available from all good Amiga software Dealers or from SoftWood. Call for your list of stockists.

SoftWood Products Europe
PO Box 19 Alfreton
Derbyshire DE55 7RW England
Tel: 0773 836781 Fax: 0773 831040
Pen Pal is compatible with any Amiga from ASD to the latest A2300A/4000 ranges with a minimum of 1 Mbs. available free memory.





GOLDENIMAGE

...Brings the best value stocking fillers for your Amiga Systems



£29.95

£34.95

Trackballs

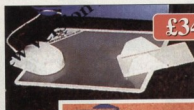
Stylish three button trackballs, choice of two models. Crystal version lights up red or green. With third button supporting auto fire & key lock function. Nicely curved for comfort and three buttons placed within easy reach. Winner of Gold award.

Mega Mouse 400

A 400dpi high resolution Opto-Mechanical Mouse. About twice the resolution of original Amiga mouse. Top quality construction ensures rapid and smooth movement, with micro switch buttons. Winner of Gold Award. Top selling Amiga mouse.



£14.95



£34.95

Optical Mouse

Superb 300dpi Optical Mouse with effortless micro switch buttons. Fast, smooth and reliable. Sensitive enough to detect the smallest movement. Includes Optical Mouse Pad and Holder



£34.95

Optical Pen Mouse

A stylish Pen Mouse with quality construction and smooth fast movement. Micro switch buttons. Ideal for DTP, artwork etc. Includes Optical Mouse Pad.

These are only a small range of top selling Amiga Peripherals. Examples of some of the products that are available from us: Scanners Mono and Grey, Colour Scanners, Hard Drives for all Amiga's, Ram Cards for all Amiga's etc. Please call our tele-sales for a full price list and catalogue.

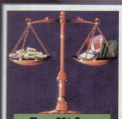
**AVAILABLE FROM ALL GOOD COMPUTER STOCKISTS OR CALL US ON
TELEPHONE HOTLINE: 081 365 1102**

Please add £3.50 postage and packing to all orders under £100 and orders over £100 add £5 postage and packing. COURIER CHARGE £10.
All prices include VAT. GoldenImage accepts payments by Visa, Access, Cheque or Postal Order, E&OE. Prices subject to change without notice.
Goods subject to availability. Specification subject to change without notice. All trademarks are acknowledged.

GOLDENIMAGE UK LTD, Unit 12a, Millmead Business Centre, Millmead Road, London N17 9QU
TEL: 081 365 1102 Fax: 081 801 8356

POWER UP

The best buys for new
Amiga owners this
christmas



**Credit for
WOMEN**



ECC

Equal Opportunities Commission



- FLOPPY DRIVES
- HARD DRIVES
- MONITORS
- PRINTERS
- SOFTWARE
- RAM EXPANSION
- ACCELERATION

All you'll ever need to power up without breaking the bank

BRIAN FOWLER

Computers Ltd

The Name You Can Trust!

11 North Street, EXETER, DEVON, EX4 3QS

A1200
New Desktop Dynamite Pack
A1200 with Oscar, Dennis,
Wordworth ago, Dpaint ago
!!! Great Value!!! £349.95 !!!

Official A1200
64HD - only
£499.00 Ask
about different
HD sizes

14Mhz 68020, 2 MB
RAM, 3.5" Floppy
Drive, AGA Chip Set,
262,000 Colours
On Screen and
Free On-Site
Warranty.
**Free Technical
Support**

£289.95

CD32 New

First Ever 32Bit CD Console!!!
WB3.1 AGA chipset, 2MB of ram
and over 600MB of storage
capacity. Free!!! Diggers !!!
Free !!! Oscar!!!

We stock
CD
ROMs

£289.95

A4000 The Ultimate Power Machine!

Choice of Fast Processors. AA Chip Set, 16.8
Million Colour Palette. Flicker Free display
using suitable Monitor. 3.5" HD Drive, IDE Hard
Drive (SCSI Available), 4 Zorro III Expansion
Slots. Complete with WB3 and Manuals. Full On-
Site Warranty. Various Configurations. Call for
compatibility reassurance!

030

80 MB HD £040.00
120 MB HD £104.99

040

120 MB HD
£199.00

Can't see what you want? Just
ring (0392) 499 755 --- we have
lots 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 buying advice is
available at all times.

(0392) 499 755

PRICES CURRENT AT TIME OF GOING TO PRESS.
E&OE. PLEASE PHONE TO CONFIRM LATEST PRICES.

CD32 Add-On Port Allows connection to Amiga or PC Available Now! Only	Expert buying advice, friendly service and excellent support.	CD32 Full Expansion Unit available soon! Phone/write for details.
--	--	---

Canon BJ105x Popular and affordable near laser quality Bubble Jet.	HP DJ550C Colour Deskjet with full CMYK printing. Superb output! Excellent paper handling!	CBM 1660 At this price it is hard to fault. MICROVITEC Cub-Scan 1440 Supports all AGA Modes.
---	---	---

New!!! Psion Series 3a 512k The ideal complement for your Amiga	Also available, Commodore's 1040 and 1042 monitors. Phone for best prices.	Studio printer software. Get the very best from your Amiga and printer combination.
---	---	---

SCSI 2 Controllers and Drives For the A4000 and A1200		
GVP	Memory, I/O and Just! SCSI 2 interface for A1200.	Hard drives Just hard drives. Call for sizes & prices. e.g 200MB
SCSI 2 controller for the A4000. For much greater throughput.		
£349.95	£199.95	£199.95

Free
Support
Hot Line

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

FAX No.
0392
423480



All Prices Shown Include VAT, Standard Delivery Is Free, No Hidden Extras.

4

Floppy drives

The best flexible friends for all Amiga owners tried and tested

5

Accelerators

Add a streak of lightning speed to your A1200

7

Monitors and hard drives

Better displays and faster access made easier

10

Essential Software

The best and latest AGA-compatible software to take advantage of your Amiga

12

Printers

Dot matrix or bubble jet, colour or black and white, it's all here

14

Know your rights

Guard against midnight cowboys and find out how to get even

Introduction

One could be forgiven at this time of year for thinking that Britain was a nation of shoppers rather than, as Napoleon claimed, shopkeepers.

At the height of the seasonal buying binge, millions of pounds rush from pocket to cash register every hour, advertisements become ever more shrill and demanding as the big 25th approaches, and tensions rise as we fight for bargains to eak out that thinning budget.

New owners this year, most of whom will be enjoying the delights of the A1200, have more choice than ever before in terms of software and hardware, and as last month's *Software Encyclopaedia* should have answered most of your questions on the software front, we'll now concentrate on the latter.

Banging a new hard drive or 4Mb of fast RAM in a machine is a sure ticket to more computing pleasure, but

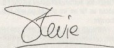
As Santa heaves into sight on the horizon and thousands of shoppers descend on Britain's retail centres, Amiga Computing tries to put things in perspective for the new Amiga owner struggling to survive the Christmas period with wallet and sanity intact

the choice is a bewildering one. Add to this the huge range of printers, floppy drives, and accelerators and the decision on what to buy begins to assume nightmare proportions.

Within this short supplement, we've tried to cram as much information as we can on the essential low-cost extras every A1200 owner will want to make his or her own. Printers, hard drives, and the rest of the

gang are covered, and you'll find RAM expansions dealt with by the round-up in the main magazine.

There should therefore be enough to guide most first time peripheral purchases, but for more in-depth reviews and the latest on what has been released for your machine, don't forget to read *Amiga Computing* every month.



If you've just bought a new machine, an extra floppy is an absolute must!

Flexible friends

Aside from a mouse, the most important add-on to any new system has to be an external floppy. With this in mind, AC brings you the best selection of external floppies money can buy.

Roclite

If speed and style is what you're looking for from a floppy the Roclite is the drive of your dreams. The unit itself is by far the smallest, slimmest and fastest drive we had on test. At roughly twice the speed of the standard Commodore internal it's pretty impressive – and barely makes a sound in the process.

Unlike some of the opposition, the Roclite comes with both anti-click and anti-virus which when combined with its pure elegance and speed make it a very attractive buy.

If you're looking for a stylish slimline drive that can outpace the opposition but that still retails at a very respectable price, Roclite is the answer.

Price Watch: Roclite, £39,
Gordon Harwood, 0773 836781

Cumana

Cumana drives have been around as long as the Amiga and to their credit I'd be surprised if the very first unit out of the factory isn't still going strong.

Sturdy, reliable, boring, noisy, that's the Cumana – in fact we're talking the computing equivalent of the Volkswagen Beetle.

If you're not after the whistles and bells of more modern drives but simply want an external that will last longer than you will, the Cumana is the perfect choice.

Price Watch: Cumana, £49.95,
Cumana Limited, 0483 503121

Power PC880B

Now here's a drive that's fit to burst with additional features. Aside from working as a standard floppy the unit also boasts an anti-virus mode which immediately write protects all the your floppies by completely disabling the write option.

The next feature is a slightly dubious addition which takes the form of a software/hardware copying system entitled Blitz copy. As you might have guessed this isn't meant for normal AmigaDOS copying tasks and that's about as far as we should go with this particular line of thought.

Although rather long the drive still remains surprisingly thin considering the amount of hardware stuffed inside – the anti-click, Blitz plus the standard drive mechanism. As

an all-purpose drive, the PC880B has to be one of the best buys on the market especially when its obvious flexibility is combined with a reasonable asking price. Available in both black and vanilla.

Price Watch: PC880B with Blitz, £60,
Power Computing, 0234 843388

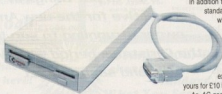
Zydec

If you're repelled by the designer label look, the Zydec offering provides the minimalist styling and space conscious design that any environmental friendly Amiga user would happily swap his or her 2CV for.

Although small and amazingly quiet considering the lack of any anti-click hardware, the Zydec does have a few faults in comparison to its more bulky and feature-packed counterparts.

Because of the extremely slim design, Zydec have been forced to add vents on the top and to the rear of the drive. Although this may seem a perfectly acceptable design, a coffee spill could soon change your mind.

If you're looking for a basic but efficient drive the Zydec is fine, but considering the extra features on many of the opposition I must admit it wouldn't be my first choice unless desk space was extremely tight.



Price watch: Zydec, £51.50,
Hobbyte, 0727 856005

Power Dual Drive

As the name suggests, our first offering from Power Computing is a twin drive comprising two PC880B drives

in one amazingly small case. Like Power's single drive, both units offer anti-click, anti-virus and Blitz copy.

The drives themselves are totally independent as far as the Amiga is concerned and like all the disks in the round-up, through ports and on/off switches are provided. Unlike all the other drives in the round-up the Dual Drive also boasts a separate power supply – an extremely useful addition if your machine is already heavily laden with additional hardware.

It's worth stressing that the anti-virus option does not actually check for a viral presence. Both the single and dual drives simply disable the machine's ability to write information to disk.

If you're in the market for a twin external system, the Dual Drive offers a compact, economical and feature-packed answer that avoids the power problems often encountered on heavily expanded systems.

Price Watch: Power Dual Drive, £125,
Power Computing, 0234 843388

Power XL Drive

Last but not least comes the pinnacle of external and internal engineering, namely the Power XL high density drive. Once installed along with a small patch program, the XL allows any Amiga to share the 1.76Mb storage available only to the A4000.

In addition to high density use the drive can also read standard 880k disks automatically. Better still it will also read and write PC disks whether they are high, (1.44Mb) or standard (720k) double density.

Although rather pricey when initially released, the drive has had a dramatic price cut and now ships for £99.95 for the external version while the external variant is yours for £10 less.

As AC goes to print only the A1500/2000 version of the internal drive is available but by the time you read this article Power have promised the entire Amiga range will be supported.

Thankfully the new internal version doesn't require any soldering and simply operates as an internal add-on or replacement for your original drive.

If you take your computing seriously and regularly need to transport large files 24-bits or whatever, the XL is a real bargain.

Price watch: Power XL Drive, £99.95,
Power Computing, 0234 843388

ACCELERATORS

*Read on as the latest
in A1200 bucket
seats and furry
dice are put
to the test*

Go faster

For anyone with a new Amiga and a need for speed the following page should provide some essential reading and invaluable investment advice.

Before the round-up begins, it's worth outlining if, when, and why, you should consider upgrading your machine. For general applications such as word processing, gameplay and basic artwork there's no real need to upgrade the basic A1200 – after all it's already five times faster than a standard A500/600.

However if your computing exploits are moving towards ray tracing, DTP or multimedia acceleration can often be essential.

Almost all the accelerator/FPU cards on the market come with space for RAM. As a result I'd strongly suggest a minimum of 2Mb should be at the top of your shopping list.

The reason is that faster processors and FPU's increase system speed – or at least that's the plan. However, if your CPU is forced to wait around for free RAM, any speed increase can soon be sacrificed.

If possible always add 32-bit trapdoor RAM in preference to PCMCIA cards. Any RAM fitted to a trapdoor expansion has two major advantages, firstly it has direct 32-bit access to the CPU/FPU, and secondly 32-bit RAM is obviously much faster and better suited to the machines architecture than the 16-bit RAM of a PCMCIA.

Number crunching

As for adding an FPU or math co-processor the real question is application. If you're a would-be ray tracer an FPU is a must, to a lesser extent the same is true for DTP and paint packages – in short anything that depends heavily on serious number crunching.

On the subject of speed, 030s are only at their best in combination with a 68882 FPU as they boast an improved instruction set aimed directly at 030 accelerators. If on the other hand you're planning to stick with your existing 020, the difference between a 68881 or 2 isn't so significant.

The only other element affecting a CPU buying decision is whether to go for an Embedded controller or EC chip as opposed to the more expensive 030 with its built-in MMU or memory management unit.

In speed terms there's no real difference between the two, however a CPU with an MMU can take advantage of virtual memory – a process by which an area of a hard disk is set-up as a virtual memory space with the assistance of additional software – thereby avoiding the need for massive RAM expansion.

M1230XA

New from Microbotics, the M1230XA range offers both the cheaper EC 68030's alongside standard 030s with built-in MMUs – both of which can employ optional 68881 or two FPU's. The various designs range from 40 to 50MHz with RAM configuration ranging from 0 to 8Mb. To add the finishing touch a battery backed-up clock has been thrown in for good measure.

In keeping with the Microbotics tradition for quality engineering, the boards use mostly surface mounted components and display a general build quality which make them hard to beat.

Price Watch: M1230XA, £177.17 to £711.99
Indie Direct, 0543 419999

MBX1200z

As the name suggests, the MBX1200z is yet another product from Microbotics range, but this time expansion is strictly limited to RAM and the addition of an FPU. Unlike its cousin, the MBX range starts with 68881 FPU's running at 14MHz with either 0, 4 or 8Mb of RAM.

Alternatively you can opt for the 68882 running between 25 and 50MHz with identical 0, 4 and 8Mb RAM configurations. As you'd expect the same Microbotics build quality is inherent throughout the range and like the XA series each card comes complete with a clock.

However I'd certainly question the wisdom of investing in a 4Mb 14MHz 68881 when you could buy a 4Mb 25MHz 68882 for only £30 extra. In short, steer clear of the 14MHz variants, they're simply not worth the money.

Price Watch: MBX1200z, £109.99 to £169.99,
Indie Direct, 0543 419999

A1230 Turbo+

The Turbo+ has the honour of being the very first A1200 accelerator and as the name suggests, it brought the first 030 to the A1200. Unfortunately the CPU is still only available in an EC form with a maximum of 40MHz for both the CPU and optional 68882 FPU. Like the other boards it ships

in various RAM and FPU configurations but alas it does work out slightly more expensive than the majority of the opposition; although this is balanced by the ability to expand up to 32Mb as opposed to the 8Mb limit on most boards.

Price Watch: A1230 Turbo+, £249 to £499
FPU with 4Mb RAM, Silica Systems, 081-309 1111

PC1204 & PC1208

Not to be outdone by the likes of Microbotics and GVP, Power Computing have joined the fray with their very own range of RAM and FPU expansion boards. In an attempt to cater for all tastes the new duet can be expanded to 4 and 8Mb respectively with either 68881/2 FPU's – which like the Microbotics boards can be rated up to 50MHz.

Again like the opposition a battery back-up clock comes as standard but in a break from tradition all models in the PC1204 range are shipped with 4Mb on-board as standard – only when it comes to the FPU and MHz are you required to make a choice.

Like the Microbotics boards, the build spec is very impressive with most major components surface mounted. Given the choice it's difficult to pick a winner, as a result I'll leave the decision making to you...

Price Watch: PC1204 & PC1208, £105 to £819
Power Computing, 0234 843386

Blizzard 1200

Although the Blizzard is yet to appear in the office it's still worth a mention. Like the GVP board it comes with an optional 68881/2 FPU rated up to 40MHz.

Like the smaller Power board, 4Mb of RAM come as standard with additional space for another 4Mb if required. As it has not been tested in-house it's impossible to offer an opinion but at £369.95 for an 8Mb board with 33MHz FPU it's well worth a closer look.

Price Watch: Blizzard, £169.95 to £369.95
Gordon Harwood, 0773 836781

Tell Our Art Department To Work Weekends

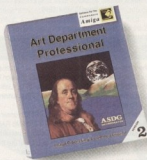


You have a deadline coming up,
and the pressure is really on.
So relax. Go on a picnic.

**Art Department Professional
(ADPro)** is working the weekend.

ADPro's comprehensive ARexx
interface allows you to convert
formats, animate, image process,
grab video, record on film and more,
even while you're not there.

Being able to work straight through
the weekend (as well as the other
120 hours in the week) means that
projects can be done on time,



925 Stewart Street
Madison, WI 53713
608/273-6585

which otherwise couldn't be
done at all.

Every aspect of **ADPro**,
including its advanced image
processing features, ability to
read and write many image
file formats, and control
different types of color input
and output devices, can be
accessed from easy-to-write
ARexx programs.

Get **Art Department Professional**.
It works weekends, so you don't
have to.

The following names are trademarks by the indicated companies: Art Department Professional: ASDG Incorporated. ARexx: Wishful Thinking Development Corp.

Monitors

TVs are great cheap display units, but the time comes when all owners start to feel the eye strain

Plugging an Amiga into a telly for the first time can be a great kick. Up pops a large colourful screen, with bags of sound and plenty of room for those sprites to run around in, and for pure games playing, the TV is hard to match. When it comes to serious work though the good reality is almost useless.

There are three general choices for those in search of a monitor. First, there's the reliable and very popular medium resolution duo of Commodore's 1084ST and Philips CM833 Mk2.

Secondly, the range of FST television/monitors being sold by our advertisers, and finally the new, more expensive, but higher quality Commodore 1940/1942 range.

Old faithfuls

The medium resolution 1084ST and CM833 Mk2 monitors are the mainstay of the non-TV Amiga display world, and have rendered excellent service over the years.

Both monitors offer sharp displays at the usual 640 x 350 Workbench resolutions, and with their stereo sound

are ideal for games, music and video applications.

When used for a hi-res interface mode though, these old battle horses show their weaknesses. They are incapable of accepting the much higher frequency output of a flicker fixer, and are forced to use the flickery PAL interlaced screen. Ideal for general productivity, but not recommended for hi-res work.

The CM833 Mk2 has recently been discontinued, so bargains should be available of you look carefully.

Price watch: 1084S, £179,
Gordon Harwood (0773 836781)

Telly compromise

There are many flat square tube (FST) televisions around with much clearer displays than the average TV, and they usually suffice for word processing and so on.

Despite the claims of the suppliers, FST telies do not match up to true medium resolution monitors for sharpness, but they do offer certain other advantages.

For roughly the same price as a monitor, you get a



remote controlled TV, often with teletext, and the speakers on a TV are usually better.

Price watch: Goldstar TV/Monitor, £169.99
1st Choice Computers (0532 319444)

High quality

The new Commodore 1940/1942 monitor is the best all-round choice for A1200/4000 owners, because it can handle all AGA screen modes and has stereo sound into the bargain.

Accepting both the PAL lower frequency signals and the Productivity screen modes most useful for word processing and other serious work, the 1942 offers a clear, crisp display and is the ideal choice. Its cheaper cousin, the 1940, supports the same frequencies, but has a lower resolution screen.

Price watch: 1942 monitor, £369
Indie Direct (0543 419999)

Hard drives

Though most new A1200 owners with hard drive aspirations are advised to buy a machine with a pre-fitted unit, many thousands buy a basic A1200 and look to upgrade it at a later date when the budget allows. For these people the hard drive road can be a rocky and painful one.

Internal hard drives can only be fitted by opening the machine and invalidating the one-year on-site warranty. In addition, though physically fitting the drive is a matter of five minutes with a screwdriver, prepping and formatting it can be a nightmare.

Depending on the supplier, the drive will either be blessed or cursed with a disk full of formatting software which can be excellent, such as 1st Computer Centre's zap disk, or appalling, as is too often the case.

The RDPrep program given away on last month's CoverDisk is a good solid answer to the formatting problem, but do try to go in with your eyes open.

Most internal IDE drives are built by four or five companies, and all perform much the same in terms of access and data transfer benchmarks. However, a new

When it can transform your A1200 totally, you would be barking mad not to consider a hard drive

drive from Quantum threatens to set new standards and start a speed war. The Rocket claims a seek speed of only 5ms and a maximum transfer rate of 4Mb per second, and should be reviewed in a forthcoming issue.

Price watch: Quantum 85Mb Rocket drive, £190
Sren Software (061-724 5752)

Other options include the trapdoor SCSI-RAM board from GVP and a number of external drives fitting through

the PCMCIA card slot. Both have the advantage of not endangering the official warranty.

SCSI-RAM fits in the same way as a RAM board, but has SCSI interface built in and a cable running to the blanking plate at the rear of the Amiga. A 25-pin SCSI port is then available to any external SCSI device.

A4000 HDs

Owners of the more expandable Amiga have had little more choice than their A1200 brethren over the past year, with Commodore's long-awaited A4091 SCSI-2 interface lagging far behind its parent machine in the release schedules.

Finally admitting defeat, Commodore have licensed the design of the board to a third-party, and the A4091 can at last be expected on the shelves before Christmas. Using such an interface, A4000 owners can add any SCSI device, including extra (and faster) hard drives, optical drives, professional scanners, and lots more.

whatever
you
wanna
play
we've got it...

A 4
Abc
mo
sm
Wir

The
G

A

F
All

GC

20

CONL

CONL

The Am

This sh

MARCA

the wo

once

from t

CONL

HINE

and w

a few

chap

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

20

ARCADE PLATFORM



ZOOL 2

ZOOL, and his female companion **ZOOL**, face a challenge which will test the prowess of the toughest Ninja's in the state of the art **PLATFORM**.

ARCADE ACTION sequel. **KROOL** and his accomplice **MENTAL BLOCK** are once again out to wipe imagination from the face of existence. Playing **ZOOL**, or **ZOOL** fight your way through **NINE** massive levels of hugely varied and enjoyable gameplay. Meet **ZOOL**, who's headed alien dog, one head round, the other highly intelligent.

ADVENTURE/STRATEGY



K240

Only when you take control of **K240** in this superb **STRATEGY** game will you understand what real pressure is. The Terran Empire has expanded. Mankind and six Alien races are struggling to maintain peace in the face of dwindling resources. Is destruction inevitable. You are the Commander of the mission to explore and exploit **K240**. Endless hours of solid and far reaching gameplay.

FANTASY & ROLEPLAY



LEGACY OF SORASIL

THE LEGACY OF SORASIL is a fantastic and huge world of adventure. The fabled land of Rhia has fallen foul of a mysterious plague. Choose a party of intrepid adventurers from 8 would be Heroes and try to return the land to it's peaceful state. Battle your way through 10 vast stages against a legion of highly intelligent foes. Endless hours of solid and far reaching gameplay.

SHOOT 'EM UP



DISPOSABLE HERO

Get that trigger finger ready for an **ARCADE SHOOT 'EM UP** that takes up the game where others have feared to tread. The Free Worlds lie technologically bankrupt. An Alien tyranny threatens mankind. As a certified **D-HERO** it is your task to fight your way through 6 levels of non-stop heart pumping finger sweating eyeball racing thumb busting, nerve jangling action to penetrate the alien stronghold.

FOOTBALL STRATEGY



PREMIER MANAGER 2

PREMIER MANAGER transformed the face of **STRATEGY** football management games with it's accessible and enjoyable game style. It has remained in the charts since it's release late in 1992. And now, **PREMIER MANAGER 2** is ready with a whole host of added features. Have you the management skills to turn around and improve your teams performance? Get ready to blow the whistle on **THE** football game for 1993.



Features Include:

- Play either **ZOOL**, or the all new **ZOOL**, each with their own special strengths.
- A wide variety of highly intelligent enemies.
- Many varied power ups and collectibles.
- Hidden bonus rooms and secret levels.
- Sizzling sound FX and a choice of in game tunes.
- Nine huge levels.

"The classic sequel to 1992's biggest selling Amiga game".



Features Include:

- 6 different Alien life forms.
- 8 different types of space crafts.
- 16 different types of weapons and shields.
- Fully designable asteroid field interface.
- Highly intelligent enemy colonies.
- 40 different building structures.
- A vast range of complex interactions to understand and control.



Features Include:

- 10 perilous quests to be completed.
- Stunning 3D isometric display.
- Simple point and click interface.
- 8 heroes, all with specialist skills and abilities.
- Earie sound FX and tunes.
- Fully self mapping.
- "If you want challenging gameplay and a game that's going to last you can't go far wrong with this".

CU Amiga



Features Include:

- Arcade quality graphics, backdrops and animation.
- Fully adjustable sound FX and in game tunes.
- Hundreds of weapon configurations.
- Mind blowing Mid-level and End-level guardians.
- Choice of assault craft with Four levels of difficulty.
- "First impressions? whoah! blast, blast, boom! death, guns, more death, action and excitement!"

The One



Features Include:

- 16 playing formations with 8 playing styles and 12 match tactics.
- Negotiate wages, bonuses and contracts.
- Comprehensive banking system with changeable interest rates.
- Up to 26 players per team with limit of 4 foreign.
- Set ticket prices and crowd control.
- **IMMEDIATE** sacking possible if you're not up to the job.
- "This really is the best bits of all the footy games, bundled together and laid out on a golden plate for you".

The One



A soft touch

If you are the proud new owner, or potential new owner, of an A1200 or A4000 this Christmas, you'd be mad not to look first and foremost at software designed to make the most of your machine and its superb graphics. In other words, if a package doesn't support AGA screen modes, then in the words of some old has-beens, let it be.

Over the 14 months or so since the release of Commodore's latest machines, many productivity packages, and a growing number of games, have moved over to AGA and now support it entirely.

Using these programs is the only way to make the most of your investment by forcing the Amiga's 256 colour and Ham6 graphics to the limit, and if you don't buy the AGA software you might as well not have bought an AGA Amiga.

DTP packages

PageSetter 3

Long established as the Amiga's best budget DTP program, PageSetter 3 offers a lot of punch for your pennies. With its full AGA on-screen support, solid DTP features, and the hot-linked graphics and text editors, PS3 is superb value for money.

Not suited to full-blown professional output, PS3 is ideal for all home, club, and enthusiast uses.

Price watch: PageSetter 3, £42.99
1st Computer Centre (0532 319444)

Buying your first Amiga software package can be a real trauma, but there are some obvious candidates for A1200 and A4000 users

ProPage 4

In the absence of the soon to be released PageStream 3, ProPage 4 is the only choice for high end AGA DTP. This powerful package is capable of superb professional results in full colour, and has the same hot-linked graphics and text editors as PageSetter.

Good typographical control allied to versatile layout tools and the Genie macro system makes ProPage a real contender, but it does suffer from a very non-standard user interface and is less flexible than PageStream.

Price watch: ProPage 4, £119.49
Hobbyte (0727 856005)

Final Writer

A top quality word processor with lots of DTP features, Final Writer is more a publisher than either a WP or DTP



Final Writer promises exciting features

program. Text rotation, graphics cropping, and column mode combined with advanced WP features make this brand new package a winner.
From the same producers as Final Copy II, Final Writer is fast, slick, and well finished.

Price watch: Final Writer, £129.99
Gordon Harwood (0773 836781)

Paint packages

Brilliance

This huge package comes in two versions, both supplied as standard. Brilliance itself is a Ham6 painting program, and Brilliance Register is designed for 256 colour artwork, the idea being that splitting the functions leaves each program to get on with its own speciality as effectively as

Word processors

Wordworth 2

This heavyweight contender is a full wysiwyg program offering full on-screen support for 256 colour graphics, and will display Ham6 IFFs in 256 colours as well. In addition, Wordworth has a host of powerful word processing features such as automatic list generation, bookmarks, and so on. Disadvantages are that it can be slow, and in particular is snail-like when a document includes graphics.

Price watch: Wordworth 2, £129
Digital International (0395 270273)



Wordworth 2 running in 256 colour mode

Final Copy II

Easily the best handler of AGA graphics, FCII is a slick, DTP-like word processor with very fast graphics import, scaling, and repositioning. The program also has a smooth user interface and is very easy to use.

On the down side, FCII falls short of many other WPs in terms of pure text-handling features, and is not really suited to creating large, multiple page documents.

Price watch: Final Copy II, £99.95
Gordon Harwood (0773 836781)

ProWrite 3.3

A good general purpose word processor, ProWrite offers decent text handling and AGA graphics support, falling somewhere between Wordworth and FCII for speed in that department.

This is a program which doesn't excel in any particular area, but makes a good showing in most. At its present asking price, it's a bargain.

Price watch: ProWrite 3.3, £40
Silica Systems (061-309 1111)

In the pipeline...

Developments in the AGA field were slow to start with, but have picked up dramatically during 1993. All new productivity software supports AGA as standard, and most of the more popular packages have gradually been converted. The next 12 months now promise a number of mouth-watering advances.

First up will be the latest versions of two Amiga heavyweights, PageStream 3.0 and Imagine 3.0. The former was recently previewed at the World of Amiga show in Pasadena, California, and has prompted a buzz of excitement.

Using what has been described as the most Amiga-legal interface ever, PageStream 3.0 offers not only complete AGA support, but a range of

advanced typographical and layout tools to rival anything presently available on the Macintosh or PC. The provisional release date is towards the middle of December and the package is likely to be expensive, but it will certainly be the best Amiga OTP package to date.

Imagine 3.0, like PageStream, has both taken AGA on-board and added many new features. The user's scene will now render directly as a Ham8 or 256 colour graphic, either in final or preview mode, and all screen resolutions are supported.

New features include field rendering for smoother animations, skeletal objects, better font support, and about 200 others. A review will be appearing in Amiga Computing as soon as Imagine 3.0 is released, so keep those eyes peeled.



*Brilliance...
high price and
performance
to match*

possible. The package as a whole offers much faster AGA painting than any of its rivals, superior animation features, and many powerful graphics processing facilities. Even at its high price tag, Brilliance is far and away the best Amiga paint program in its class.

Price watch: Brilliance, £149
1st Computer Centre (0532 319444)

DPaint IV AGA

Though recently knocked from its throne by Brilliance, DPaint IV is still an excellent painting and animation tool for AGA Amiga owners. All Amiga screen modes and colour combinations are catered for, and the Move requester is still one of the easiest to use animation tools around.

Unfortunately, it is dreadfully slow in Ham8 mode, even on the A4000, and has seen little real development since

release III. Good at the price, but better save up for Brilliance.

Price watch: DPaint IV AGA, \$99.99
Micro-PACE UK (0753 551888)

Personal Paint 2.1

Not as well known as it deserves to be, the latest version of Clonto's paint package is a cheap and effective 256-colour register program which does not use Ham8, but will load these graphics in and convert them to 256 colours.

Painting tools are much the same as the other packages, with the possible exception of the program's use of spline curves, and there are several image processing functions which can be used to give a picture a special touch. Not the most powerful package, PPaint is nonetheless excellent value for money.

Price watch: Personal Paint 2.1, £49.99
Micro-PACE UK (0753 551888)

*DPaint IV
AGA is slow,
but does the
job very well*



Space stations in 256 colours ...

Rendering packages

Scenery Animator 4

A traditional landscape generator, Scenery Animator has been around for years, and now does a very good job of producing 3D Ham8 countryside.

Aside from the usual trees, clouds, and lakes, Scenery Animator 4 also allows the user to locate VideoScope 3D objects directly in a scene, and to place trees individually for finishing touches. Easier to use, if less powerful than Vista Pro, Scenery Animator 4 is an excellent beginner's program.

Price watch: Scenery Animator 4, £79.95
Meridian (081-543 3500)

Vista Pro 3

This virtual landscaper has more options and controls than Scenery Animator 4, and presents the user with an exhaustive (and rather daunting) control panel, but doesn't offer more in the way of solid features. Vista Pro is, however, more flexible for those wishing to put in the effort.

The MakePath utility, which is used to create paths for fly-throughs, can put together some very complex flight sequences, and should give animators enough to be getting on with.

Price watch: Vista Pro 3, £54.95
Gordon Harwood (0773 836781)

Real 3D v2

Real 3D v2 is a complex nightmare of a package with a cumbersome user interface, but it is also the next best thing you'll get to Lightwave without the Video Toaster or the new Lightwave dongle.

A huge list of power features includes advanced kinematic animations, particle systems, spline rendering, and so on, and there is enough in the tutorial section of the manual alone to keep the new user going for six months. Definitely not one for a beginner, but a good bet for the rendering professional.

Price watch: Real 3D v2, £xxx
Alternative Image (0533 440041)

The power of the press

Want hard copy from your latest investment? We test the best in budget printing

I money is short but you're still desperate to get prose and pictures on paper don't part with any cash until you've read our invaluable guide to budget printing.

Citizen Swift 90c

Perhaps the most notable aspect of the Swift 90c is automatic sheet feeding, which is something of a novelty at this end of the market.

In addition the traditional control panel has been given something of a going over. Instead of an LCD display, there's a new sliding button and menu system.

Although boasting the odd extra, the 90c isn't the quickest 9-pin you'll ever see, with a top speed of only 240cps – and that's using the rosy High Speed Draft font. What's really surprising is the quality of the 45cps NLQ fonts. While big images or curves invariably look jagged, standard text output is pretty neat, and is even better than the output of some 24-pins.

Type: 9-pin dot matrix
RPP: £219

Speed: 240cps draft, 45 cps NLQ
Emulations: Citizen 90, Epson FX-850, IBM Proprinter III
Fonts: Roman, Sans serif, Orator, Prestige, Script, Courier Plus, Courier Draft and High Speed Draft
Buffer: 8k

Fujitsu DL1150

Full marks for strangeness, as the Fujitsu is without doubt the weirdest looking printer by a long way. Unfortunately nil points for the sheet feeder, which is tripe. Still, a number of nice looking built-in LQ fonts are easy to get at from the simplistic front panel. Performance-wise it isn't particularly noisy, is medium pace at 60cps in LQ mode and has a respectable printer buffer.

It also has a good range of emulation, though the Epson one is not the most common you could ever see. Print quality is potentially pretty good since those curves and jagged lines are nicely smoothed.

Throw in the colour option and you've got a large, lightish, easy to use printer that's good for dealing with larger amounts of text rather than graphics.

Type: 24-pin dot matrix
RPP: £365

Speed: 200cps draft, 60cps
Emulations: Fujitsu DPL24C, Epson LQ-2500/2550, IBM Proprinter XL24
Fonts: Courier, Pica, OCRB, Prestige, Elite, Boldface PS, Dutch PS, Swiss PS, Non-LQ. Correspondence, Compressed, Draft, High-Speed Draft
Buffer: 24k

Epson LQ-100

After close inspection of the rather minimalist front panel, you suddenly realise that you can't see into the machine at all, and that the sheet feeder is in fact located in the bottom of the front. This slides out to reveal a 50-page single sheet feeder, which is something of a novelty on a dot matrix printer. It then accepts the paper and slides back in again.

While the front panel does allow you to swap between the seven built-in fonts (two of which are scalable), it is also an exercise in confusion and requires guesswork or a trip to the manual before you are completely familiar with it.

As usual for an Epson ESP2 printer, the output quality is top notch. The LQ-100 may be more rough and ready than the others in the range but it still shares the same quality engineering.

Type: 24-pin dot matrix
RPP: £210 Speed: 167cps draft, 60cps LQ
Emulations: Epson PS/2 Typefaces: Draft, Roman, Sans Serif, Courier, Prestige, Script
Buffer: 11k

Star LC-200

While your average Star printer wouldn't win any beauty contests, they are usually very competitively priced. The LC-200 is no exception, offering bland looks, decent 24-pin performance, and an inexpensive route into colour.

The single sheet feeder slots neatly over the tractor, and there is a choice of exit holes for paper. The actual feeder is pretty good, though there's a slight tendency for paper to stick on the ridge inside and not hit the feed hole if you aren't careful. It isn't particularly bad, but it does occa-

Citizen Swift 200

As you'd expect, the 200 sports the same command panel as its relation with assorted sliders and buttons all working in exactly the same way.

Adding the fact that the sheet feeder is just as good, there's also that excellent automatic paper feed mechanism.

Add a snap-off panel for font cartridges and you have a printer that's physically identical. Where the difference comes in is the printer engine, with the 200 offering superb 24-pin quality, and a colour option.

OK, so the control panel is definitely much cheaper than the LCD panel on the original Swift series, but it's also more sophisticated than all the

others happen. You know when the paper is in through, because when it prints the LC-200 makes a fair bit racket, especially handling graphics – when it starts to screech.

Controlling the printer itself is easy enough with the front panel being an old fashioned buttons and lights job. There are four LQ typefaces, in addition to a draft typeface.

Quality-wise it ain't bad, but neither is it brilliant. If you're looking for a workhorse printer rather than a stationer, this could be the answer.

Type: 24-pin dot matrix
RPP: £259

Speed: 225cps draft, 56cps LQ
Emulations: Epson FX850, IBM
Fonts: Draft, Sans Serif, Courier, Orator, Script
Buffer: 16k

Star LC-20

The LC-20 is a direct replacement for the LC-10, offering three built-in typefaces alongside 9-pin quality, as well as ease of use thanks to a cheap looking front panel and simple internal mechanics.

You can add a colour ribbon at minimal cost, but you'll need a printer driver – widely available from the PD. Basically you're looking at the budget 9-pin that's a bit fuzzy but thankfully much quieter than the LC-200, while offering only one less typeface.

Type: 24-pin dot matrix
RPP: £189

Speed: 185cps draft, 45cps LQ
Emulation: Epson FX85, IBM Proprinter
Fonts: Draft, Sans serif, Orator, Courier
Buffer: 4k

other printers in this price range, and while it may not be the quickest you'll ever see it gives some of the best output.

Quality wise you're talking pretty much even with the Epson LQ-100 – although the larger characters are handled much better by the Swift. If you're looking for a best buy in this article, the Swift 200, with its six LQ fonts, cheap colour ribbon option and high quality output, is it.

Type: 24-pin dot matrix
RPP: £259

Speed: 180cps draft, 60cps LQ
Emulations: Citizen 200, Epson LQ, IBM Proprinter, NEC P20 Fonts: Roman, Sans serif, Orator, Prestige, Script, Courier Plus, Courier Draft
Buffer: 8k (32k and 128k options)

These are hard times, and despite claims to the contrary, there are lots of cowboys around eager to make a fast buck and relieve you of your cash.

Now that is not to say all traders are devious – indeed, the cowboys are rapidly becoming fewer and fewer as consumer knowledge grows. But as our mailbag proves, problems still abound, so how can we minimise any possible hassle?

If you have a good relationship with your local dealer, and you are a regular customer, buying from that source is without doubt still the best way.

He will value your regular custom, and you will have far to go if problems occur. You will also have 'an ear to the ground', and it's likely that second-hand bargains or special offers will reach you quickly.

Always ask to see any kit working, be it hardware or software. Check that all documentation accompanying it is complete. Read the warranty, including the small print. Guard against exclusions such as 'No liability whatsoever is accepted' and the like.

Seek discounts

Retain your receipt and keep it in a safe place. If the ink printout from the till-roll is one of those faded purple varieties, ask the shop owner to ink it in and sign it. Keep the packaging (inside a polythene bag in the lot is a good spot). Some warranties require returns in original packaging.

Cash has a remarkable effect. Always ask for a discount for cash. If you have it. Expect at least 10 per cent, or ask to have something thrown in with the price – a printer leads with a printer, or disks with a major purchase.

Ask the owner to demonstrate the kit. Box shifters such as the major electrical retailers generally won't know a genlock from a gymslip, but a local computer dealer worth

his salt should be able to talk knowledgeably about his stock.

Ask about advice and tips in using the purchase. If you have seen the same goods advertised cheaper elsewhere, take the advert and show it to the owner when discussing price.

Above all, be friendly, but be firm. Don't be lobbied off if something doesn't seem completely kosher (like missing packaging or boxes which looks well used (a possible repaired item). Be wary of opened licence agreements on software (copied?) or well-thumbed manuals (previous visitor).

Mail order is probably the source of the biggest number of complaints. Often the cause is the fault of the purchaser, in not indicating clearly the exact nature of what's needed or failing to provide essential information such as correct address or credit card number.

I will deal with methods of purchase later, but when ordering by post, be it by phone or letter, be prepared for the pitfalls. Have the advert in front of you when you place the order. Read the small print. Look out for exclusion clauses or exemptions. Telephone the company to ensure the following facts. Is the item available from stock? Is the price as advertised? Does the price include VAT? What is the cost of postage? How long will delivery take? Are the goods covered by insurance during transit? What guarantees are offered? Who pays postage in the event of breakdown?

When you telephone, give specific information regarding your set-up – Amiga, add-on, memory additions, revisions of frequently used software and so on. Ask about compatibility. These facts could determine

Wilf Rees reports on how to ensure your hard-earned cash brings you best value, rather than anger and grief

Buyers

whether or not a prospective purchase is suitable for your system.

If it is not and the error is yours, then the vendor is under no legal obligation to return your money. Always keep all correspondence, as well as copies of your letters.

Checkpoints

When the goods arrive, check the contents carefully to ensure everything is present. Look for your receipt of purchase. Try out the goods immediately to ensure they work properly. Store the packaging safely. If there is a fault, do not attempt to repair anything.

Should any of the above checkpoints be negative, then contact the company immediately, describing the nature of the problem. Be calm and polite, and don't start demanding redress or compensation.

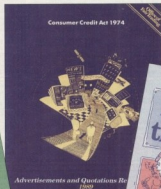
Often problems arise purely from misunderstanding and manufacturer's omissions, not directly the fault of the vendor, but they are certainly their responsibility. The vast majority of mail-order companies will correct any

problem without hesitation. You may however be required to return the goods at your own cost.

When it comes to payment, cash is often the best way to deal locally, allowing you to negotiate a good deal, but when it comes to any other kind of order, the situation is quite different.

The key factor governing how you pay by mail order is if the article is over £100, and whether or not you have a credit card. The reason for this definition is embodied in the Consumer Credit Act 1974.

This Act determines statutory consumer rights affecting purchases over £100 bought on





Beware!

the proper procedures, without any joy, here are some useful tips. Write to the company by Recorded Delivery, addressing your correspondence to the managing director stating clearly the full circumstances.

Write to any trade organisation to whom the retailer or mail-order company might belong. These organisations always have codes of practice which detail minimum standards expected of members.

Write to your credit card company enclosing a copy of the letter sent to the MD. They will act as mediator in a dispute. Write to your local Trading Standards or Consumer Protection Dept. explaining all the facts and enclosing copies of correspondence.

They investigate false or misleading descriptions, as well as malpractice, and may prosecute. Don't get angry and abusive, you just end up sounding stupid and acting like a prat. Don't contemplate any silly actions such as distributing defamatory literature in front of the shop. This has happened in the past and the culprit was sued for £2,000 for damages.

If goods have failed to arrive, ring the company often, being polite but firm. Don't accept the offer of credit notes, or any similar carots.

Final option

When the waiting becomes unacceptable, write by Recorded Delivery stating your intention to offer a further seven days grace after which you will not accept the goods.

So, after all of this grief, you still are not satisfied. Well there is one final option, and one you might not have considered as an alternative, but you can sue.

The Small Claims Court was set up to solve just this kind of problem. It handles disputes up to £1,000. It is fast, inexpensive and fairly user-friendly. Disputes are settled in a non-threatening environment, and the arbitrator will rule there and then on the outcome.

If you want to consider this option, go along to your local county court where you can obtain leaflets which explain in detail how the whole process works.

Wang then I did! Ask how long a guarantee repair will take. If a manufacturer guarantees turnaround within x working days, then they are liable to compensation if they fail to achieve this.

If you do have a problem, and you have fulfilled all of

credit. Cards such as Access, Barclaycard and Mastercard offer protection from retailer malpractice, which really means these purchases are best conducted by plastic.

An important point here to clarify is the difference between the aforementioned cards, and ones such as Switch or Connect. These are not covered by the Act, as they are debit cards, without credit facility.

Secondly, if goods are ordered on a second user card, then cover is not automatic, and such liability has never been tested in the courts. Never send cash through the post. Who do you blame if it goes missing?

If you must pay by cheque or postal order, keep the stubs or counterfoils. If credit facilities are offered, never agree to anything until you have full details of the purchase agreement. You will in all probability get better rates elsewhere.

Guarantees

It is often the case that shops will offer a guarantee, in addition to the manufacturer's. Ask for details about repairs, and time taken. A manufacturer's guarantee can be very useful, as long as the company still exists.

Whatever a manufacturer's guarantee says, remember you can still demand your statutory rights from a shop, even if the manufacturer warranty has expired.

If your computer breaks down two days after purchase, it is unreasonable for the retailer to say 'I will send it back to Crappy Computers for repair'.

You can demand a replacement or a refund. If it breaks down after two months, then the situation is slightly different. On-site maintenance contracts can avoid this problem, but I hope you have better luck with

What are my rights?

The laws which determine consumer protection are: The Supply of Goods (Implied Terms) Act 1973; The Consumer Credit Act 1974; The Unfair Contract Terms Act 1977; The Sale of Goods Act 1979; The Supply of Goods and Services Act 1982.

These laws cover all of the UK except Scotland, where common law covers most situations - otherwise specific issues are dealt with on an individual basis. All of these laws are written in the usual gobbledygook you might expect from lawyers, but in the context of how you stand, the basic principles are:

When you buy something, the seller and yourself enter into a contract. A contract can be both written and/or verbal. Any dispute you have is solely with the seller. The manufacturer has no involvement.

Don't be lobbied off by "I'll send it back" stories. Goods must be of "merchantable quality", that is, fault free and reasonably fit for the purpose for which they are sold.

The law also covers second-hand goods, but the condition will be reflected in the price, so you are not legally entitled to "top quality". Goods must be "as described", whether on the package, in an advert or by telephone.

You are entitled to reject replacement or alternative items. Goods must be "fit for the purpose described". Wood glue must glue wood. If any of the above conditions are not met, you are entitled to one of three options, depending usually upon how long you have had the goods, or how serious the problem is.

Firstly, you can reject the goods immediately and get your money back. Or you can obtain a cash payment to make up the difference between what you paid and the reduced value of the goods you bought. Finally, if you both agree, you can get a replacement or a free repair.

Do remember the element of fairness. You are not entitled to any form of redress if you examined an item when you bought it and should have noticed any problems, or were told about them at the time.

You can't expect compensation if you did the damage yourself or simply decided afterwards that you didn't want it. And if you receive something as a present, then the original buyer must pursue any problems.

HARD DRIVES
FREE PHONE
0800 833618



Visit MasterCard.co.uk or telephone
charges accepted for installation
deposits.
Prices may be subject to a 2%
surcharge on credit cards and
company charges.
Cheques payable to Shyne PLC.

Tel: 081 880 3227
Fax: 081 880 3748



Shyne PLC, 2004 High Road, London E11 6BT

...at a price YOU can afford

- External IDE HDD for Amiga A500/A500+
- Internal IDE HDD for Amiga A1500/2000/3000/4000.
- Memory conveniently expandable to 2/4/6/8 Mb by using 1 Mb x 4 chips on Alfa, AT-Bus 2008 & Octagon.
- Easy installation, just plug in and go.
- Auto boot, auto configure and zero wait states.

A500

Alfa, 170 Mb IDE	17MB	£299
Alfa, 252 Mb IDE	14MB	£350
Alfa, 345 Mb IDE	14MB	£450
Alfa, 560 Mb IDE	10MB	£599
GVP HD8+ 170 Mb	17MB	£450
GVP HD8+ 345 Mb	14MB	£550
GVP HD8+ 560 Mb	10MB	£699

A600/1200 2.5" DRIVES

60 Mb & cable	-	£159
85 Mb & cable	17MB	£195
1200 Mb & cable	17MB	£229
170 Mb & cable	-	£299
210 Mb & cable	-	£350

CONTROLLERS

AS00

Alfa power idle	£99
GVP HD8+	£185
ICD Trifecta EC	£159
ICD Trifecta SCSI-2 & IDE	£215
A1500/2000/3000/4000	
BSC AT-Bus 2008 IDE	£75
BSC Octagon 2008 SCSI-2	£149
GVP HCB+	£129
ICD Trifecta LX	£149

BARE DRIVES

SCSI

170 Mb	17MB	£199
240 Mb	14MB	£279
340 Mb	14MB	£299
560 Mb	10MB	£499
1.0 Gb	10MB	£850
2.0 Gb	10MB	£1299
3.0 Gb	10MB	£2250
4.0 Gb	10MB	£2699
IDE		
130 Mb	10MB	£CALL

170 Mb	17MB	£199
250 Mb	14MB	£250
340 Mb	-	£299
560 Mb	10MB	£499
1.0 Gb	10MB	£850

SYQUEST

SEE OUR CARS

44 Mb	£295
88C Mb L/W 44	£369
105 Mb	£000
105 Mb	£CALL
External box & cables add	£75

OPTICAL

Fujitsu 128 Mb WFF WFF CARS	
Internal	£699
External	£755

PART EXCHANGE WELCOME

FREE ONE BOX OF 10 DD DISKS
with every order over
£100 placed before
Dec 31 1993.

DON'T FORGET THE MEMORY

1 Mb SIMMS 30 pin £35	4 Mb SIMMS 30 pin £115
1 Mb SIMMS 72 pin £40	4 Mb SIMMS 72 pin £150

Prices subject to change due to U.S. exchange rates

ACCESS *Amiga*

ISSUE 1 Packed 81% - CU Amiga October '93

Access Amiga magazine is now in its 7th successful issue, and continues to deliver some of the best reviews ever made available to Amiga owners worldwide. Its style, quality, and content earn issue 1 a rating of 81% in October CU Amiga, so we must be doing something right.

Issue 3 is available now, and contains reviews on some of the latest products available for the Amiga. These include the very latest versions of Rombo's Take 2, ASDGs Art Department Professional, and Digital Creations 'Brilliance'. On top of all this you will find interesting reviews, articles, show reports, letters, public domain reviews, and the very latest news on the Amiga scene.



A BIG COMPETITION also appears in this issue, courtesy of Burgess Video Group we have a selection of great videos up for grabs, and if that is not reason enough for getting hold of a copy, you will also find full details of the forthcoming International Computer Show at Wembley.

When producing Access Amiga, great care is taken to ensure that you get a superb, jam-packed issue every time. We make our reviews as thorough and accurate as possible, and ensure that we only bring you interesting news and articles. We are so sure that you will enjoy our magazine that we are prepared to make you a very special guarantee.

Our policy is simple: If at any time you wish to cancel your subscription, we will refund you for any issues that have not been mailed.

We are sure you will like Access Amiga, we listen to our readers, and wherever possible we do personally reply to letters. So take a look at this alternative magazine, you won't be disappointed.

AMIGAMANIAC - The Club

- *Have you just bought an Amiga, and just do not know where to turn to with your problems?
- *Do you need some advice before making that important purchase?
- *Are you a more experienced user, but still need FREE technical advice?
- *Would you like access to a range of special services (eg. Digitising, Product Locating)?

All this plus special discounts, FREE utility disks, and 12 issues of Access Amiga is available by becoming a member of Amigamaniac. Use the coupon below today!

SUBSCRIPTION FORM

- ✓ Please Tick
- ☐ 6 Issue Trial Subscription - Next 4 Issues + 2 Back Issues - £9.00
 - ☐ 6 Issue Subscription - £10.50 (Starting with current issue)
 - ☐ 12 Issue Subscription - £19.00 (Save £2) (Starting with current issue)
 - ☐ Years Membership to Amigamaniac Includes 12 issues - £29.00.

Name:
Address:

PCODE:
Cheques / P.O.'s payable to Weekend Developments & send to: PO Box 208, Folkestone, Kent. CT19 5EZ.

When you first buy your Amiga you're so pleased with it, you don't give the old floppy drive a second thought. It's there internally in the case, and what more do you need to know? Well, soon you realise that one floppy is never enough, and like RAM or hard disk space, you can't have too much of it.

Copying disks is a nightmare without another drive, so it's advisable to have more than one at your disposal. There's no reason why you shouldn't have more, but then you run into some difficulties which you will need to be aware of. But then that's why we're here, isn't it? Aren't you the lucky ones?

When you get to the shop and say: "Can I have a floppy drive please?" the shopkeeper will sack his cheeks in like a man estimating your plumbing bill.

"What sort of drive?" he'll say.

"Er..." you'll snap back cleverly.

And you'll feel a bit of a prat, won't you? Not to worry. Here's what he's talking about.

Internal drives are the ones like the one which is already in your Amiga. If you have a big box Amiga, like a 1500, 2000, 3000, or 4000, then you have room for more internal drives. If you have a 500, 600 or 1200 you don't. There is room for only one drive in the case and it's already there.

External drives connect to the machine via the external drive connector, on the back of the machines marked Disk Drive. This means that the external drive has its own case, and a lead which plugs into the port at the back. There are single drives and double drives, which obviously increases the power overload, but increase your productivity.

The size of the drives is not usually important, as most Amiga drives are 3.5in, but some can be had which are 5.25in. These are for IBM style big (very) floppy disks, and are only for use with IBM emulators like the Bridgecards.

A number of good high density drives are around too, which run disks which look very similar to the normal double density disks you run all the time, apart from an

extra hole on the opposite side to the write protect tab, and a little HD symbol on the bottom near the sliding cover.

These disks format to 1.76Mb, or twice the capacity of a regular 880k floppy, simply by having a disk which is more dense than regular disk media.

This is just like the difference between chrome and metal cassette tapes, and the cheap ferric oxide ones you get free from

the garage. There are a number of new drives which offer optical or "floptical" technology for capacities of 20Mb and 128Mb per disk, but these are rare at the moment, and obviously you pay through the nose for the drives and floppies alike.

These are bordering on removable fixed or hard disks, but without, of course, the fast access times of those mediums. We'll go into speed in a moment, but take it from me for now that speed is a bonus.

OEMs

Drives themselves are almost always made by the same manufacturers, like Citizen or Panasonic. These are called Original Equipment Manufacturers or OEMs. The drives can be used with any computer, but they need a special interface to work with the Amiga specifically.

This interface is built in to the case by the vendor - whoever builds and sells you the drive - which explains why most drives are as reliable as each other and about the same price, as they are all pretty much based on the same actual technology.

The power overheads required to run a drive from the computer's power supply are quite shallow on an Amiga 500/600 and so daisy chaining two or three drives together isn't really possible like it would be on a 2000, which has a more powerful power supply.

The best floppy drive in the world is only as good as the disks you put into it. If

you buy in bulk or reformat cheap disks you will get errors of some sort at some time. This much is a fact.

The only way to minimise (notice I didn't say remove) these problems is to always use new disks for important data, and always, but always, back up. Another good case for having more than one disk drive unit!

The thing is that floppies wear out, get irradiated by hi-fi speakers, and the old "being rested on top of a Walkman trick" is a good one too. You could be walking around the shops with a disk in your pocket, and the next guy in the queue for the bus has a 16in electromagnet in his jacket shorts.

It could happen. If you use duff media or don't make back-ups, the perverted gent with the electromagnetic appliance down his pants (or whatever) is going to kill off your data, o quicko.

Also ensure that you screw the little connecting screws on your external disk drive leads into the port at the back of your machine.

Pulling the disk drive lead out is one way to ensure that your machine and the disk drive get fired, as the drive gets its power from the Amiga down this port. So make sure it's securely fitted before you turn the machine on, and don't unplug it until you've powered down.

Disks get corrupted, and there's really no way of avoiding it every once and a while. We've just been into some of the ways you



Speed comparisons

The speed of floppies is terrible, compared to hard disks and CD ROMs. Transfer rates and access times are tossed about like so much technical salad, but the basic idea is this. Try it. If it's fast enough, buy it. If it sucks then go elsewhere.

Also, access times and transfer rates are not interdependent. It may take only 19ms to access the disk, but if it takes ten minutes to transfer the thing, what's the point?

Floppy

Typically have access times which are quite fast these days, in the 20ms mark, but the transfer rates are awful, in the 100 to 200kps range, so large files take ages to load/copy/save.

Hard drives

Most HD manufacturers head for the 20 to 30ms access times, and transfer rates of around 650 to 700k per second.

CD ROM

Faster than floppies but slower than hard disks, although the speed is getting up now. Most adverts for conventional CDs talk about transfer rates of about 150k per second, access time about 500ms. Double speed models run at about 300kps, with access times around 280ms, and the newer quad speed devices are running up to 600kps.

Jargon buster

access time This refers to how long any storage device can locate and begin loading a piece of information from the disk. See also Transfer Rate.

daisy chaining The act of chaining one drive onto the back of another one.

Some disk drives have another drive port on the back and you can plug another drive into it. The name comes from the way the drives look when fixed together resembling a daisy chain.

DIP switches A little tiny row of toggle switches fitted to a device or motherboard, usually for activating functions or configuring a device.

The DIP refers probably to the Dual In-line Package, or the little multi-legged chip that the switches are mounted on, and how they are soldered onto the board.

drive click Amiga drives click every few seconds or so because they are looking for a disk in the drive. Some PD programs insist to stop this, but some drives actually have a hardware solution to the problem.

floppy disk Actually most disks these days aren't floppy, but they were. In the history of computing they were big 5in or even 8in thin plastic things which bent as you were putting them in the drive and were generally a pain to work with. Now we have thin rice near 3.5in hard plastic so we can get away with abusing them a bit more. Not!

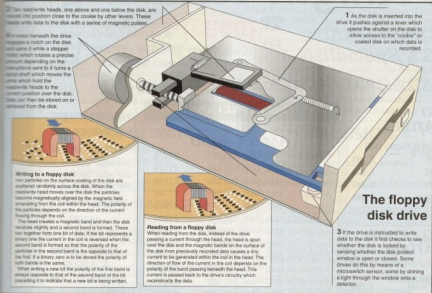
power overhead Daisy-chaining drives together is a little bit hazardous on the A500. The power overhead (the power left after some is drawn by each device down the drive port) decreases to very low levels as more drives are added.

One or two external drives is all you can really get away with, and it's always safer to add a drive with its own power supply if you can.

slimline drives Used to be big lunking great boxes the size of a VCR, and then came the slimline drive mechanism.

Some said at the time "some day all drives will be made this way", and they were right.

transfer rate The speed at which data is transferred from one device to another, like from a modem to a computer or the disk drive to the memory. See also Access Time.



The floppy disk drive

Some crazy

Phil South looks at the floppy disk. Is it friend or our foe? And why do you want one anyway?



can do the most at your end to put off this awful day. But what happens if you do get a corrupted disk?

You can use DiskDoctor, but I wouldn't recommend it. What I would recommend is two programs — DiskSav by Dave Haynie, and a program called AReStore by Jehan Proux.

DiskSav is an essential tool for getting any lost data back from a clobbered disk. It takes a clean formatted disk and bypassing the conventional Amiga disk routines it makes a copy from the bad disk to the new one, patching any missing blocks etc to make the file run.

If you even recover half of what you lost

on the disk this program is well worth the effort to take to get hold of (new versions are available on CD as we speak).

AReStore is an undelete program. If you unwittingly delete something this program will get it back for you. Deleting a file simply destroys its entry on the directory, so as far as the OS is concerned it is just

loose blocks of data. You can put it back on the directory map with this program — very handy for people who use point and click programs like Directory Opus or SID for their disk housekeeping.

What should you buy and why? Well this isn't a buyers' guide so I can't tell you what, but why? Well that's easy. You just have to have the money to buy one, and about £40 should cover it, plus an eye out for any extra features.

If you haven't got an external drive for your machine then go and get one, and stop complaining. You know it makes sense.



Quarterbyte tools can provide detailed disk information

Tools \$1.50		AC	
Statistics for volume 000 on disk drive 00			
Volume status:	OK	Device driver name:	000000000000
Volume size in KB:	100	Low cylinder:	0
Free space in KB:	100	High cylinder:	0
Volume size in blocks:	100	Number of cylinders:	0
Free space in blocks:	100	Number of surfaces:	0
Percent full:	0	Blocks per track:	0
Known bad blocks:	0	Block size (default):	0
Filling system:	0	Reserved blocks:	0
		Preallocated blocks:	0
		Re-transfer (KB):	0
		Header type:	0
			0

White Knight Technology

ESTD
27/10/93



3.25 Exchange on Credit
Cards. Not Valid on Visa Data

PROFESSIONAL
AMIGA Specialists



Fax

(0992) 714539

10am - 7pm Monday - Friday
And 11am - 4pm Saturday



PO BOX 2395, WALTHAM CROSS, HERTS, EN8 7HQ

A500 ACCELERATORS

GVP A530 TURBO 40MHz 68030, 1MB	
WITH 42 MB HARD DRIVE	£ 395
80 MB HARD DRIVE	£ 495
120 MB HARD DRIVE	£ 595
213 MB HARD DRIVE	£ 695

A500 / 1500 / 2000 ACCELERATORS

SUPRA 28MHz TURBO (68000) £ 129

CSA DERRINGER 25MHz 68030 & MMU, WITH OMB 32-BIT RAM £ 299

CSA DERRINGER - PLATINUM 50 50MHz 68030 (optional 50MHz 68882) WITH OMB 32-BIT RAM £ 449

SEE MEMORY BOX FOR 32-BIT SIMMS

A1500 / 2000 ACCELERATORS

GVP G-FORCE 25MHz 030/882 + 1	£ 325
GVP G-FORCE 40MHz 030/882 + 4	£ 689
GVP G-FORCE 50MHz 030/882 + 4	£ 989
GVP G-FORCE 33MHz 68040 + 4MB + Serial, Parallel & SCSI Ports	£1279
CSA MAGNUM 28MHz 68040, OMB & SCSI-2 (Optional Serial & Parallel)	£ 849
RCS FUSION 40 28MHz 68040, OMB, uses standard 1x9 or 4x9 SIMMS	£ 765

A1200 ACCELERATORS

GVP A1230 , 40MHz 030, OMB	£ 245
GVP A1230 , 40MHz 030, 1MB	£ 305
GVP A1230 , 40MHz 030, 4MB	£ 395
GVP A1230 , 40MHz 030/882, 4MB	£ 489

MICROBOTICS M1230XA

WITH 25MHz 68030 & MMU, OMB	£ 225
33MHz 68030 & MMU, OMB	£ 249
50MHz 68030 & MMU, OMB	£ 319

CSA 12 GAUGE

50MHz 68030 & MMU + SCSI, OMB	£ 549
-------------------------------	-------

SEE MEMORY BOX FOR 32-BIT SIMMS

ALL PRICES INCLUDE VAT

AMIGA 4000

A4000/030 , 6MB RAM, 80 MB	£1079
A4000/030 , 6MB RAM, 120 MB	£1179
A4000/030 , 6MB RAM, 200 MB*	£1149
A4000/030 , 6MB RAM, 250 MB*	£1189
A4000/030 , 6MB RAM, 340 MB*	£1269
A4000/030 , 6MB RAM, 420 MB*	£1389
A4000/040 , 6MB RAM, 80 MB	£1899
A4000/040 , 6MB RAM, 120 MB	£1999
A4000/040 , 6MB RAM, 200 MB*	£1989
A4000/040 , 6MB RAM, 250 MB*	£2029
A4000/040 , 6MB RAM, 340 MB*	£2109
A4000/040 , 6MB RAM, 420 MB*	£2219
Extra 4Mb SIMM £150, or 1Mb SIMM £45	

* Drive not covered by WANG / ICL On-Site Warranty

AMIGA 4000-T/040 DUE IMMINENTLY—CALL

AMIGA 1200 HD

A1200 + 64Mb Hard Drive	£ 339
A1200 + 85Mb Hard Drive	£ 489
A1200 + 127Mb Hard Drive	£ 519
A1200 + 209Mb Hard Drive	£ 589

DESKTOP DYNAMITE AVAILABLE + £50

All A1200's are covered by WANG / ICL On-Site Warranty

AUDIO PRODUCTS

SUNRIZE AD516 / STUDIO 16

8 Track Stereo, 16-Bit, Better than CD Quality - Direct to Disk Recording, Editing & Playback. Can be used in conjunction with the Broadcast Editor via SMPTE

£ 1249

SUNRIZE AD1012 / STUDIO 16

4 Track Mono, 16-Bit, Direct to Disk Recording, Editing & Playback. Can also be used in conjunction with the Broadcast Editor from Digital Micronics, via SMPTE

£ 499

FOR FURTHER DETAILS, PLEASE CALL

MEMORY

8MB SIMM -32	£350	4MB SIMM-32	£150
2MB SIMM -32	£ 80	1MB SIMM-32	£ 45
1MB SIMM -8	£ 40	4MB SIMM-8	£160
GVP SIMM -32's 1Mb	£ 75,	4MB	£185

HARD DRIVES + CONTROLLER

A1500 / 2000

GVP HC8+ 80MB	£ 295
GVP HC8+ 120MB	£ 389
GVP HC8+ 213MB	£ 489

BARE DRIVES

A1200

250 MB & CABLE	£ 349
----------------	-------

A1500 / 2000

& A3000

40 MB SCSI 3.5"	£ 110
105 MB SCSI 3.5"	£ 190
180 MB SCSI 3.5"	£ 230
240 MB SCSI 3.5"	£ 275
330 MB SCSI 3.5"	£ 375
425 MB SCSI-2	£ 499
525 MB SCSI-2	£ 639
1.2 GB SCSI-2	£ 899
2.0 GB SCSI-2	£1199
3.5 GB SCSI-2	£2750

A4000

200 MB IDE 3.5"	£ 199
212 MB IDE 3.5"	£ 215
256 MB IDE 3.5"	£ 239
340 MB IDE 3.5"	£ 329
420 MB IDE 3.5"	£ 399

HARD DRIVE CONTROLLERS

A1500 / 2000

GVP HC8+ / A4008	£ 129
BSc AT-BUS 2008	
3.5" IDE (Exp. 8Mb)	£ 89
ICD ADSCSI 2000	£ 85

FASTLANE Z3

SCSI-2 + Upto
64Mb RAM
(A3000/4000)
£ 459

**VIDEO
BACKUP
SYSTEM
£59**

REMOVABLE DRIVES

"THE BOX" BERNOLLI by IOMEGA,	
150MB SCSI-2 INTERNAL DRIVE	£ 559
150MB SCSI-2 EXTERNAL DRIVE	£ 549
150MB REMOVABLE CARTRIDGE	£ 89

Drives are supplied with 1 FREE Cartridge

BERNOLLI drives are up to 290% quicker than
Syquest drives with better £/Mb ratio.

**SYQUEST DRIVES (88Mb & 44Mb) ALSO
AVAILABLE, FROM £295. PLEASE CALL**

OPTICAL DRIVES

FUJITSU 128MB SCSI INTERNAL	£ 779
FUJITSU 128MB SCSI EXTERNAL	£ 899
128 MB OPTICAL DISK	£ 40

TAPE BACKUP

SANKYO 250 Mb STREAMER (Int)	£ 429
CONNOR SCSI DAT - 2Gb (Int)	£ 829
COMMODORE A3070 150Mb (ext)	£ 399

(Last few remaining - FREE 150Mb tape)

SOFTWARE

BRILLIANCE	£ 135
BARBS & PIPES PROFESSIONAL	£ 225
TVPAINTE 2.0	£ 199
ADP TOOLS PROFESSIONAL	£ 125
SCALA MULTIMEDIA 210 (AGA)	£ 149
SCALA PROFESSIONAL V1.13	£ 85
MULTIFRAME	£ 75
WORDTHROW (V2) AGA	£ 59
ASIM CD-ROM FILESYSTEM (V2)	£ 59
TAPEWORM FILESYSTEM	£ 75

Other Professional Software Available on Request

MONITORS

COMMODORE 1082 Comp. / S-Video	
Colour (Last Few Remaining)	£ 95
COMMODORE 1940	£ 289
COMMODORE 1942	£ 385
MICROVITEC CUB-SCAN 14-40	£ 419

68881 / 68882 FPU'S

68881 12 MHz PGA	£ 35	68882 25 MHz PGA	£ 99
68882 33MHz PGA	£ 129	68882 50 MHz PGA	£ 159
68882 25 MHz PLCC - For A4000/030 etc.	£ 79		
68882 33 MHz PLCC - For A4000/030 etc.	£ 105		
68882 40 MHz PLCC - For A4000/030 etc.	£ 129		

68030 CPU'S

68030 25 MHz PGA	£ 75	68030 33 MHz PGA	£ 109
68030 50 MHz PGA	£ 169	68EC030 40 MHz	£ 99

MODEMS

SUPRA FAXMODEM V.32 (No s/w)	£ 219
SUPRA FAXMODEM V.32bis (No s/w)	£ 249
SUPRA FAXMODEM V32bis (Inc s/w)	£ 299
US Robotics Courier Dual Std. 16.8	£ 539

VIDEO PRODUCTS

DIGITAL BROADCASTER 32

This Zero III card performs the major functions of a full, broadcast quality, digital video editor. It provides REAL-TIME, FULL MOTION JPEG (25 fps) Capture & Compression, direct to disk. The captured video can then be edited and subsequently Decompressed and played back in REAL-TIME, at 25 fps in broadcast quality, direct to video, laser disc recorder etc. Also included on the board is full SMPTE timecoding, read & write. The card also interfaces with the AD616 Studio 16, 8 track stereo audio card from Sunlize, and the VIVID 24 Image Rendering Engine.

FOR FURTHER DETAILS, PLEASE CALL.

OPALVISION

MAIN BOARD (V.2) £ 549
24-BIT Professional Graphics board with Paint, Animation & Presentation software.
Release date of following items now Mid November

VIDEO PROCESSOR £ 849
Real-Time frame grabber, professional genlock, Digital Video Effects (DVE) etc.

VIDEO SUITE £ 849
19" Rack Mount Audio & Video switcher,
9 Video & 10 Audio inputs, Frame store.

TIME BASE CORRECTOR £ 849
An infinite window RGB Time Base Corrector (TBC), which also includes a flicker-fixer outputting a 31 KHz signal for use on a multisync monitor.

GVP IMPACT VISION 24

24-Bit Professional Graphics board with Frame Grabber/Digitiser, Flicker - Fixer, Genlock & Picture - In - Picture etc. With Caligari 24, Macro Paint 2, MyLad & Desktop Darkroom software.

IV24 With VUI-S (RGB / Comp)	£ 985
IV24 With VUI-CT (RGB / S-VHS)	£ 1279
Adaptor For Amiga 1500/2000	£ 45

HARLEQUIN + (WITH FREE VLAB Y/C)
With 4Mb Vram/double buffered £ 1595
With 2Mb Vram/single buffered £ 1495
FOR FURTHER DETAILS, PLEASE CALL.

RETINA DISPLAY CARD 2Mb	£ 405
RETINA DISPLAY CARD 4Mb	£ 499
VLab Y/C Real time digitiser	£ 379

NEW PRODUCTS

PICASSO II 24-Bit GRAPHICS CARD	
A2/3/4000 up to 1280 x 1024 (2Mb)	£ 329
PICASSO II with TVPaint Junior	£ 379
PICASSO II with TVPaint 2.0	£ 499
PICCOLO DISPLAY CARD, 1Mb	£ 389
PEGGY MPEG CARD	£ 489
RAINBOW III DISPLAY CARD	£ 1499

FOR FURTHER DETAILS, PLEASE CALL.

**DON'T FORGET TO CALL THE
BIG BANG BURGER BAR BBS
081 909 2064**

£3000/£3000T

**WE HAVE A NUMBER OF
EX-DEMO AMIGA 3000
DESKTOP AND TOWER'S.
25MHz 68030 / 68882
Flicker Fixer, SCSI etc.
A3000 1+1, 52Mb HD
£749
A3000T 1+4, 150Mb HD
£995
A3000T 1+4, 200Mb HD
£1075**

SYSTEM BUILDING

WE HAVE THE
EXPERTISE TO BUILD A
COMPLETE SYSTEM FOR
YOUR APPLICATION.
CALL TO DISCUSS
YOUR REQUIREMENTS

SPECIALISTS?

WE KNOW ABOUT THE
PRODUCTS THAT WE
SELL, AND ARE HAPPY TO
ADVISE YOU.

SERVICE

FOR A PERSONAL
SERVICE, AND AFTER-
SALES BACKUP THAT IS
SECOND TO NONE, LOOK
NO FURTHER

PRICE MATCH?

SORRY, WE CAN'T
ALWAYS MATCH ON
PRICE - HOWEVER OUR
EXPERTISE IS FREE!

DELIVERY CHARGES

Express £6
Economy £4

For timed deliveries, or
heavy orders, please call.

SURCHARGE

If ordering with ACCESS or
VISA, There is a 2.5%
surcharge. No surcharge for
VISA-DELTA, CONNECT or
SWITCH

HOW TO ORDER

HAVE YOUR DEBIT OR
CREDIT CARD DETAILS AT
HAND, AND CALL:-

0992 - 714539

10-7 Monday-Friday

11-4 Sat. Closed Sun.

OR BY POST,

ALWAYS PHONE FIRST TO

VERIFY PRICE &

AVAILABILITY BEFORE

SENDING YOUR ORDER TO:-

"WHITE KNIGHT
TECHNOLOGY",
P.O. BOX 2395,
WALTHAM CROSS,
HERTS. EN8 7HQ



Graphics Extravaganza

Add-ons and freebies for Pixel 3D Pro,
plus a new volume for the
Alternative Textures Collection

For ray tracing and modelling fanatics everywhere, Pixel 3D Professional has become one of the most wanted add-ons. However, its rather frightening RRP hasn't exactly generated record breaking sales.

As a result, Axiom Software have now sweetened the pot with not only an extra software freebie but also a special anorak's edition T-shirt.

Although a pleasant touch, the idea of sporting a Dan Dare motif along with the phrase "Pixel Boy" emblazoned across the chest isn't exactly my idea of high fashion.

Leaving the marketing gimmicks aside, the real carrot for a would-be investor is the addition of Animation Workshop to the Pixel 3D Pro bundle. As its title suggests, Animation Workshop is aimed squarely at anim production and manipulation.

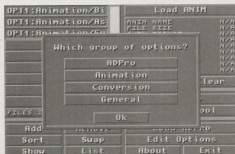
Cut-down

For the countless ADPro fans out there, the Workshop screenshot will no doubt seem somewhat familiar. In fact, looks aren't all that it has in common with ADPro.

In fact, Workshop could almost be described as a cut-down version of ASDG's excellent ProControl batch processing software. With the aid of Workshop, ADPro commands can be applied automatically to each frame of an animation, thereby avoiding the sometimes terrifying process of generating your own AREXX scripts.

As a result, Workshop is only really at its best in combination with ADPro - although it can still perform impressive compilation and processing without the assistance of its expensive associate.

Although compilation is an important part of Workshop, it's by no means every-



Workshop offering ADPro style anim conversion

images - thereby aiding individual frame selection.

In addition to graphic talents, audio can also play a part with IFF samples playing at any point during the animation - regardless of whether the anim is looping or otherwise.

Like most other power packages, AREXX has been adopted allowing access to personalised AREXX scripts and potential links to other programs.

All round the addition of Workshop certainly doesn't do Pixel 3D Pro any harm at all - although a combination of ADPro and ProControl would be a far superior image processing combo.

Still for the dedicated ray tracer the new Pixel 3D Pro is more attractive than ever - even though it appears rather cheap has been done to improve the rather quirky nature of the main program, which still insists on occasionally removing or adding the odd face for no good reason.

thing. For example, once an animation is generated, you can convert it to a different resolution and colour combination, combine it with other animations, include additional frames, split it into various smaller files, delete and replace individ-

ual frames, reverse the action, flip it and even scale it.

To aid the editing process, Workshop provides the added bonus of an on-screen frame count producing a large numeric read-out over full screen, full colour

Product: Pixel 3D Professional
Price: £199.95
Contact: Meridian Distribution Ltd
081-543 3500

Alternative two

No doubt due to the success of their original release, Alternative Image have now consolidated their position in the texture business with the release of volume II in the Alternative Textures series.

Not surprisingly, this new collection broadly follows the format of the originals with 12 textures spread over the 12 disk collection.

With just a single image per disk, the question of value for money has to be high on the agenda. However each disk not only holds the ubiquitous 24-bit but also three variations including an 8-bit greyscale, a bump and HAM as well as the aforementioned IFF 24.

For power users with access to ADPro, ImageMaster or ImageFX, the inclusion of what are effectively downgraded versions of the original 400x400 IFF24s won't be of any great interest, as they can always generate their own variations from the original.

Having said that if you're on a budget instant access to the various forms could prove an invaluable tool for those who employ more than one package in their productions.

However, if we cast the proletariat aside it must be said the .jpeg format favoured by most texture libraries would mean far more images per disk - at the expense of flexibility. Anyhow the choice has been made, and if you're a multimedia type on a budget it's probably worked out in your favour.

Product: Alternative 3D Textures II
Price: £40
Contact: Alternative Image
Tel: 0533 440041

SNAILS, SPRINGS & STAIRS

Using Extrude and Rotate

Get the best out of your package. Find out how to use the package's full range of features.



Note how the object axis is placed in each of the examples.

Tracing attractions

In addition to the basic texture collection, Alternative are also sweetening the pot with a free Imagine or Rex3D support disk with each investment.

Rolling at £10 each as stand-alones, the disks not only offer a Covens-mazing but also a collection of sound advice, graphic examples and problem solving scenes which go a long way towards helping solve the mysteries of both programs.

If you're in the market for both support disks in addition to the £40 texture collection, Alternative are offering a special bulk buy offer of just £50 for the complete set.



GOTWAR

SOFTWARE DEMON LTD

38/40 QUEENS CHAMBERS
QUEENS STREET
PENZANCE TR18 4HB
CORNWALL

PHONE (0736) 331039

FAX (0736) 331499

TRADE (0438) 315988

OPEN 6 DAYS A WEEK

MON-FRI 9.00AM-6.00PM

SAT 10.00AM-3.00PM

HOW TO ORDER

BY PHONE

To order by phone you'll need your credit card number and expiry date. Please be sure to quote the correct card address so as to avoid delays.

BY POST

When ordering by post please include a full description of the goods and the price. It is a good idea to phone before ordering so as to avoid disappointment. Please make all cheques and postal orders payable to SOFTWARE DEMON LTD, and allow 5 working days for cheques to clear.

OR VISIT OUR SHOP

If you are in the area or live locally please don't hesitate to visit our shop. Our friendly staff are available for advice and are willing to demonstrate any of our stock to give you a better idea of what you want. Our shop also carries the full range of latest entertainment software and has a games zone where you can park the kids or play the latest games.

Please note that in our effort to bring you the best value available our prices are subject to change without notice. This does not necessarily mean that the prices will go up.

DELIVERY

All purchases are made up to order and then dispatched. All customer modifications generally take 3-4 days to fit. The goods are then dispatched via our courier service on a 24 hour delivery schedule. If no-one is available to receive the goods then the courier will leave a card explaining how to arrange a delivery to suit you. Saturday delivery can be arranged at a small surcharge.

DELIVERY £10

PICKUP & FIT SERVICE £29

COMPUTERS AND HARD DRIVES

AMIGA A4000/040

The flagship of the Commodore Amiga range. Based around the 68040 processor. Comes with Hard Drive, 2+4 RAM and WB3.

85Mb version	£1899
120Mb version	£1919
170Mb version	£1939
250Mb version	£1979
340Mb version	£2069
426Mb version	£2149

AMIGA A4000/030

The same specifications as it's big brother but designed around the EC68030 processor. Comes with a Hard Drive, 1+1 RAM and WB3.

FOR 2+2 ADD £69

85Mb version	£939
120Mb version	£969
170Mb version	£1029
220Mb version	£1059
256Mb version	£1089
340Mb version	£1149
426Mb version	£1199

HAVE A SECONDARY HARD DRIVE

FITTED AT THE SAME TIME AS

PURCHASING YOUR A4000

85Mb	£129
120Mb	£149
170Mb	£189
212Mb	£229
250Mb	£249
330Mb	£229

MONITORS FOR CD32

Why tie-up your TV this Christmas? Buy a composite input monitor for sharper gameplay and graphics.

1084S MONITOR PHONE FOR
LATEST PRICES AND
AVAILABILITY

AMIGA A1200

DESKTOP DYNAMITE PACK

The A1200 sports many features of the A4000 series. Based around a 68020 processor, 2Mb of RAM and WB3 as standard. A full range of hard drives are also available. The desktop dynamite pack is supplied with a range of software written specifically for the AA chipset, including DPaint AGA and Wordworth AGA plus others with a total RRP of over £300

Basic	£289
20Mb HD version	£369
40Mb HD version	£388
60Mb HD version	£445
85Mb HD version	£468
127Mb HD version	£494
170Mb HD version	£528
220Mb HD version	£548
256Mb HD version	£578

IDE HARD DRIVE KITS

These drives can be fitted to the A1200 at any time by us or the end user. The kit comes complete with all software necessary to configure the drive.

40Mb	£139
85Mb	£179
120Mb	£279
209Mb	£399

A1200 HARD DRIVES

These hard drives can be added to your existing system and are installed by our technicians to ensure the best fit. They come with a 1 year return to base warranty on the drive and the computer.

40Mb	£99
85Mb	£179
120Mb	£239
170Mb	£269
250Mb	£329
330Mb	£399
426Mb	£499

All hard drives fitted after time of purchase must add £29 fitting fee

UPGRADES

CD ROM DRIVE

The ultimate in data storage and high speed transfer rates for the A4000 series. These multisection CD ROM drives come complete with all the necessary mounting software, SCSI controller card and software to enable the use of CDTV discs. Welcome to the future of home entertainment.

CD ROM DRIVE £399

PLEASE ADD £29 FOR 2 CDPS
FRED FISH DISCS (OVER 1000MB)

MATHS CO-PRO (PLCC)

25MHz 68882	£89
40MHz 68882	£129

MEMORY

single sided SIMMS module for A4000

1Mb RAM	£39
4Mb RAM	£169

ACCELERATORS

Our accelerators are produced for the A1200 by GVP, a watch word in quality and reliability. Both boards are user replaceable via the trapdoor so as to maintain your warranty.

GVP SCSI/RAM BOARD

This board has slots for up to 8Mb of RAM, a maths co-pro and has and includes an SCSI interface as standard.

0Mb/NO FPU £179

4Mb/33MHz FPU £348

SCSI CABLE KIT £44

GVP A1230 BOARD

This board features a 68030 processor as standard and also has slots for up to 8Mb of RAM and maths co-pro.

0Mb/NO FPU £269

4Mb/40MHz FPU £439

GVP ACCESSORIES

33MHz 68882 FPU £79

40MHz 68882 FPU £129

32bit 1Mb RAM £64

32bit 4Mb RAM £153

DEMON



THE OVERDRIVE EXTERNAL HD



THE OVERDRIVE 35

These external hard drives come in an ABS box styled to match the Amiga A1200. They plug in via the PCMCIA slot and include an external PSU so as not to invalidate your Commodore warranty. Ultra fast data transfer rate of 2Mb/sec. Full 1 year return-to-base guarantee. They come supplied with all the necessary hardware to mount and configure the drive.

40Mb	£189
85Mb	£249
170Mb	£319
220Mb	£339
250Mb	£369
340Mb	£419
425Mb	£519

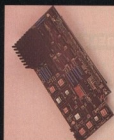
THE OVERDRIVE 25

The compact version of the OVERDRIVE 3. This model is designed to be transported, it's size has been reduced, the internal hardware has been upgraded to deal with the problems created by moving hard drives around and the power is now drawn internally. So, they just put it in your pocket and away you go.

TYPICAL TRANSFER RATE: 1.2Mb/sec

20Mb	£99
40Mb	£169
80Mb	£199
80Mb	£249

TURBO CHARGE YOUR A4000/030



PHOTON UPGRADE

Finding that your A4000/030 isn't quite man enough for your present projects? Never fear Software Demon is here.

We are now able to offer an upgrade service, saving all the hassle of selling your old Amiga. So, to upgrade just send in your main CPU module and front panel and we will part-exchange it for a genuine Commodore 040 CPU module; which includes an MMU and built in FPU and a new A4000/040 front panel.

PHOTON UPGRADE £799

HELLFIRE UPGRADE

AVAILABLE SOON
Our latest development has produced a stunning new way to improve the performance of your A4000/030 at an incredibly low price. It comes in the form of a replacement CPU module which slots in where your present module sits. It's features include a 50MHz standard clock speed; an MMU as standard and a built in 50MHz FPU. To upgrade will require you sending us your original CPU module which we will then part exchange for our new A4000/030 accelerator.

PRICE?
PLEASE PHONE FOR
DETAILS
PROJECTED RRP £299

LEISURE & ENTERTAINMENT CIVILIZATION AGA

This is it, the bees knees. It's the ultimate god game. This game is Microprose's flagship, it's won a host of awards and now it's been upgraded to make the most of the new AGA chipset. If you don't already own a copy of Civilization then you don't know what your missing, and if you have an original copy then you'll be stunned by the improvements. So either buy it now or upgrade and get into the most serious game of all time.

CIVILIZATION AGA £39 UPGRADE £19

To upgrade just send the 4 original disks including £19 and your name and address.

CD32 CONSOLE

This machine represents the future of home entertainment and video game play. A self contained CD console which you can expand to a full CD based home computer. It is built around true 32bit technology with 256 screen colours, 68020 processor with a 14MHz clock speed and high resolution screen display. Read the reviews and hear what the experts have got to say about Commodore's new baby. I think you'll agree it's time to kiss Sonic Goodbye and wish Mario a fond farewell because the future is here. Optional extras include a keyboard, floppy drive, mouse and a hard drive. All of which will be available soon.

CD32 is supplied with 2 great software titles written for the AGA chipset and designed to display the full range of CD32's assets.

ALL FOR THE MEASLY
PRICE OF £279

SOFTWARE DEMON LTD CUSTOMER SERVICE

GENERAL POLICY

We at SOFTWARE DEMON LTD endeavour to bring you the best value at the cheapest price possible. This is not easy in this day and age of multi-national corporations but buying everything in sight and then shipping it as fast as possible, not caring where it goes just as long as they get the cash. Here we believe in the personal touch, all purchases are made up in order for each individual then tested and dispatched. No box shuffling and no rush. We may not be the fastest but we take pride and great care in what we do. Each customer receives the best service possible.

OUR GUARANTEES

All our standard Commodore products are genuine UK specification, no knock manuals and no dangerous electrical standards. They all receive a 1 year on-site warranty. All the products modified or fitted by SOFTWARE DEMON LTD receive our own 1 year Return to Base, or in replace warranty. If a Software Demon product fails within 1 year of purchase due to faulty parts or workmanship, we will replace the goods by courier, return them to basic, fix or replace them and return them to you free of charge.

AFTER SALES SERVICE

At SOFTWARE DEMON LTD we firmly believe in caring for our customers, past and present. There will nearly always be somebody available on line to answer any question or help with any problems you may have. We are also willing to give advice on purchasing any computer related products and to help you choose the right equipment to suit your needs. If you have any queries just phone:-

TECHNICAL SUPPORT

(0736) 331499



ALL PRICES SUBJECT TO CHANGE
WITHOUT NOTICE EAGE
ALL TRADEMARKS ACKNOWLEDGED

OPEN ALL HOURS

WELL, NEARLY!
9am-10pm Mon-Sat
10am-6pm Sunday

SPECIAL OFFERS!!

2.5" HARD DRIVES FOR A600 / A1200	
40 MEG	£109
80 MEG	£189
120 MEG	£219
210 MEG	£349

EXTERNAL A1200 HARD DRIVES

(THESE DO NOT VOID YOUR WARRANTY)	
210 MEG	£299
340 MEG	£419

A500 / A500+ HARD DRIVES

170 MEG	£249
210 MEG	£269
340 MEG	£389

BY THE TIME YOU READ THIS, HARD DRIVE PRICES MAY HAVE FALLEN. PLEASE PHONE FOR LATEST PRICES.

LOOK! LOOK! LOOK!

V2.04 ROM + WORKBENCH 2
DISKS + WORKBENCH 2 MANUALS
ONLY £29.95

PRINTERS & RIBBONS

Star LC20	£133.00
Star LC100 Colour	£169.00
Star LC200 Colour	£194.00
Seikosha 24 Pin Colour	£199.00
Star LC24-200 Colour	£274.00
LC100 mono ribbon	£4.50
LC100 colour ribbon	£6.75
LC24 200 mono ribbon	£5.50
LC24 200 colour ribbon	£13.50
LC20 mono ribbon	£4.50

LEADS & CABLES

Printer	£3.99
Serial	£3.99
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
Analog Joystick Adapter	£4.99
4 Player Adapter	£5.99

LOOK! LOOK! LOOK!

TRACTORFEED DISK LABELS

Now you can print your own professional disk labels!
500 Plain white disk labels on tractor feed,
complete with FOUR disks of software and artwork.

**Yours ONLY
£9.95**

**1000 Labels with software
ONLY £13.50**

AMIGA HARDWARE

A1200 Race and Chase Pack	£289.95
CD32 + Oscar + Diggers	£289.95
A4000 - 030 2MB Ram	£289.95
170Mb Harddrive	£999.95
1084 S Monitor	£174.95
Cubscan 1440 Multisync	£399.95
External Amiga Floppy Drive	£49.95
A500 Internal Floppy Drive	£48.95
A500 512K Ram Exp.	£18.95
A500 512K Ram Exp. + Clock	£23.50
A500 1.5 Meg Ram Exp.	£76.95
A500+ 1 Meg Ram Exp.	£33.95
A1200 2 Meg Ram Exp.	£109.95
A500 Power Supply	£29.95

DISKS & LABELS

All disks are supplied with labels.
UNBRANDED DISKS are 100% error free.

In the unlikely event that any of our disks are faulty, then we will replace the disks AND reimburse your return postage!

3.5" DSDD Grade A	£0.37 each
3.5" DSDD Grade B	£0.29 each
3.5" Rainbow	£0.44 each
3.5" DSHD	£0.58 each
3.5" DSDD Fuji (box of 10)	£4.90
3.5" DSHD Fuji (box of 10)	£8.90
5.25" DSDD Fuji (box of 10)	£2.50
5.25" DSHD Fuji (box of 10)	£4.90
1000 3.5" labels	£6.50
1000 3.5" tractorfeed	£8.50

STORAGE BOXES

Most types are available for 3.5" or 5.25" disks.	
10 capacity	£0.95
40 capacity	£3.49
50 capacity	£3.95
100 capacity	£4.50
80 capacity Banx drawer	£8.49
150 capacity Posso drawer	£15.95
200 capacity drawer	£14.95

VISIT OUR NEW SHOP

9am - 5.30pm Mon-Sat
9am - 1pm Thursdays



MISCELLANEOUS

Mousehouse	£1.80
Mousemat 9mm thick	£2.50
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	£13.95
Amiga Lightpen	£32.00
Optical Mouse	£32.00
Manhattan Mouse	£9.99
Megamouse II 400 DPI	£12.95
Point Mouse	£12.95
Alladata Trackball	£26.95
Crystal Trackball	£32.00
Zydek Trackball	£25.95
Zyl Amp/Speakers	£37.50
Action Replay Mk III	£56.95
Midi Master	£26.00
Titl/Turn Monitor Stand	£9.95
2-piece Printer Stand	£3.49
Mini Printer Stand	£8.99
A4 Copholder	£5.99
Metal Angle Poise Copy Holder	£14.95
A500/A600 ROM Sharer	£14.95
V1.3 ROM	£25.95
Microsoft Tractorfeed Paper: 500 sheets	£4.50
2000 sheets	£13.00

JOYSTICKS

All joysticks have autofire feature except those marked *.

Trigger Grip Models	
Quickshot turbo	£6.95
Pytron 1M	£7.99
Jeilfighter	£12.00
Topstar	£19.50
Intruder	£21.50
Base Fire Button Models	
Maverick 1M	£12.95
Megastar	£21.50
Zipstick	£12.95
Comp Pro 5000*	£10.95
Comp Pro Extra	£12.95
Comp Pro Star	£12.95
Cruiser Multicolour*	£9.95
Comp Pro Star MINI	£14.95
Aviator 1 Flightyoke	£23.50
Handheld Models	
Speedking	£10.50
Navigator	£13.95
Bug	£12.00

ANALOG JOYSTICKS

These Joysticks will fit any Amiga

Warrior 5...	£14.95
Satek Megagrip 3	£19.50
Speedking Analog	£13.95
Intruder 5	£25.50
Aviator 5 Flightyoke	£27.50
Adapter to use any PC analog joystick on an Amiga	ONLY £4.99

COMPUTER SUPPLIES
Direct



0782 206808 - Anytime
0782 642497 - 9.00am-5.30pm Weekdays
0630 653193/0782 320111 - Evenings & Weekends



BUSINESS HOURS

9am to 10pm Mon-Sat, 10am to 6pm Sun

All items and offers subject to availability. E&OE

P&P £3.30 All Prices inc VAT

We accept POs, cheques & credit cards

Please write Cheque Card Number on cheque for instant clearance

BUSINESS AND EDUCATION ORDERS WELCOME

DIRECT COMPUTER SUPPLIES 36 HOPE STREET, HANLEY, STOKE-ON-TRENT ST1 5BS

The memories of Christmas recede into the foggy corridors of your mind. The potential nightmare of computer technology destroying that special family event and creating floods of tears has faded after loading a game in for the holidays.

They played on Oscar until their stomachs grumbled so loudly that they remembered they were hungry.

As the days and festivities pass, a nagging feeling returns: I need to know how to use this machine more, I've got to do that report and make it look professional. Oh God, we haven't even bothered looking at that Workbench manual yet - it looks like it's written in a foreign language...

You enter the newsagents, brow furrowed with determination as the visual assault begins. Tacky, glaring, day-glo computer magazine covers bellow at the windows screaming:

"Buy me!"

"No, buy me!"

"Don't look at him, buy me. I've got exclusive Streetfighter 2 stickers hot from Japan... or is it Grimsby printing press emporium for the lads and chels?"

You remember through the haze of bad design the magazine that you came in to buy - a quiet, well dressed little number with a line in intelligence, *Amiga Computing*. The cover settles your fears: "The Absolute Beginners' Guide". You think back to the last article and pick up the trail...

Workbench

The Workbench on an Amiga is like a workshop or work top - it's the control centre where things are created, added to and destroyed along with many other things.

If you have a hard drive, simply switching your machine on will boot up the Workbench. If you've been following the guide since last month, you'll already know how to boot up the floppy disk version.

A quick reference to the difference between floppy and hard drives. A floppy drive is a rusty, slow and unreliable way of storing information and the data comes on a disk.

A hard drive is usually built inside and can store far more info (up to whatever size you want to pay for). It runs much quicker and is far, far more resilient to wear and tear (as long as you don't drop the computer).

We'll go into more depth with both of them in another issue. For now, let's concentrate on actually operating the basics of the Workbench.

Take a look at the icons that run down the left-hand side of the screen. These are picture symbols for the various programs that they represent.

Go up to the one labelled Workbench, using the red arrow (your pointer) which



Adam Phillips
guides you
through your first
precarious,
post-Christmas
magazine rack
encounter

Visiting the newsagents

is controlled by your movements with the mouse. Click twice ("double click") on it quickly with the left mouse button.

You'll find that the left button is generally used for selecting options, such as loading and moving things around.

A window opens up which simply displays what files and programs the selected icon contains. Imagine this system as the modern equivalent of a Russian doll - opening up a main directory (a place where all the files and programs

are kept) reveals smaller directories or files which then in turn open up to reveal still more and so forth until either you choose the desired file or the computer has displayed all the avenues available.

Again double click on the drawer labelled Utilities. This opens up another window with more icons. Select the Clock icon using the same process as before.

An analogue clock will appear in the

top left of the screen. It doesn't have the right time but don't worry about that yet. Study the blue framed window that contains the time piece. You'll see that it has a blue title bar running along the top with the word Clock in it.

Go up to this bar, press the left button down and keep it held down. Now move the mouse and you'll see that the window follows the movement of your hand.

Bringing your finger off the button places the window in the position you put it in. Take the clock back to its original place using the same method.

Take a look at the bottom right-hand corner of the window and you'll see a small white marker that looks like a cut in

half square. This is called the sizing gadget. Click and hold on it with the left button. Drag the mouse outwards away from the window and you'll see two lines stretch and move with you. These determine the size of the window. Release the button and it is redrawn to your exact requirements.

The right mouse button is commonly used for calling up pull down menus at the top of the screen and selecting them. Hold the right button down and you'll see the words Project and Settings appear at the top.

Black box

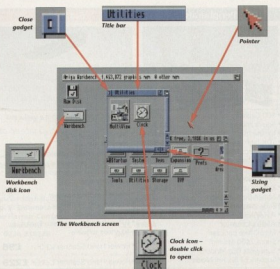
Keeping the button pressed down, go up to Projects and a menu will appear. Still holding the key, move down the list and you'll see a black box appears around each option in the list. Rest on Digital and release your finger. The list will now turn into a digital read-out in the top left corner.

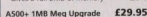
From here, if you take a look at the top left of the window, you'll notice a little white square. Clicking on this will close the clock box.

That just about covers basic window manipulation for this month. Have a go with the other drawers in Workbench and experiment until you're 100 per cent confident with the aforementioned gadgets.

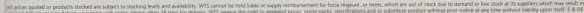
If you have any spare time, assuming you bought the Desktop Dynamic pack, open up the Wordsworth v2 manual and start reading - it'll take a month to plough through...

● Next month we'll take a look at the remaining window facilities on offer and installing software on the hard drive.





- Workbench 2.04 Kit **£78**
(includes manuals, disks & chips)
- Kickstart 20.4 **£24**
- Kickstart 1.3 **£26**
- Kickstart ROM Swapper (swap between Kickstart) **£18**
- Fatter Agnus 8372 **£49**
- Obese Agnus 8375 **£54**
- High Res Denise **£29**
- 1MB x 9 Simms (3 chips) **£29**
- 1MB x 4 Zips **£14**
- 8520 CIA **£13**



Full motion video (FMV) has become a monster buzzword this year, and one which the industry has until recently failed to deliver on. Now though, Mpeg decoder cards are appearing in a steady trickle for all machines, and the Amiga is right in there with its first release, the Peggy board from German company Helfrich International.

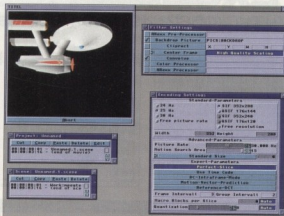
A card for all Zorro II or Zorro III expansion slots, Peggy comprises the C-Cube decoder hardware, based around the CL450 video decoder, and a built-in genlock to send output to either the monitor screen or the outside world.

The latter is a little problematic as the board has no video output, just RGB on a 15-pin D-plug, so users who wish to videotape their Mpeg movies will have to use an RGB to composite encoder.

Supplied with the Enhanced Graphics System (EGS) libraries, Peggy utilises retargetable graphics techniques and a pass-through mode similar to that employed by the Piccolo and Picasso boards. Users connect their Amiga output to the board's 9-pin input and their monitor to the 15-pin connector.

Once set up, Peggy passes all Amiga video signals through to the monitor, and mixes its own with them when asked to by software so that Mpeg movies can be displayed in Workbench windows using the talents of the integral genlock. These displays are therefore in full video colour, which makes for superb previews of the finished Mpeg project.

As we go to press, software supplied with the board has yet to be finalised, and the Mpeg player utility we were supplied with used the Peggy hardware for real time playback, but was very basic. It



was impossible to use windows over the Workbench screen or on an EGS display card, thus limiting the board's usefulness.

For the purposes of creating Mpeg streams in the first place, a professional encoder program was included with our Peggy card, but as this uses the EGS libraries, a suitable display card, such as Piccolo or Rainbow, must be present if you want to use the software. Additionally, the professional software costs £250 extra, though a more basic encoding package will be bundled with the board.

The professional software is a dream to use and offers complete control over the encoding process. Mpeg streams are treated as projects within which any number of scenes can be included, and the

scenes, individual frames, or ranges of frames can be cut, pasted, and generally moved around with ease.

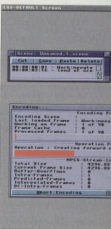
When the project is set up to the user's satisfaction, there are plenty of options available for those with specific requirements or a good knowledge of the technicalities of Mpeg. Playback parameters include frequency (24, 25 or 30Hz), image size, and whether there is a set rate or file size the user requires.

For example, if the finished Mpeg stream was to be used in a game demo

and needed to fill no more than 200k on floppy or hard drive, the user could set a target size for the file and the program would endeavour to meet the requirement.

This might not be possible, of course, and in such cases reducing the quality of the finished playback or cutting the project's length would be the only answer.

Standard Mpeg size is 352 x 288, or 4:3 res interlace with video overscan, but it



What is Mpeg?

The Mpeg video compression standard, named after the Motion Picture Expert Group which formulated the standard in 1991, is a set of rules governing the way in which video and audio is compressed such that the resulting file takes up very little space on disk and plays back at full video speed.

Beginning life as nothing more than this set of paper-bound rules, Mpeg has now reached the hardware stage with a number of companies producing decoder chips specifically designed to decompress Mpeg files (known as "streams") at 25 frames per second. The best known example at the moment is C-Cube's chip set, and it is this set which Peggy and Commodore's CD32 full motion video cartridge contain.

An Mpeg stream contains either video information alone or combined video and audio, and the Mpeg decoder's job is to extract both. A system decoder first splits the stream into timing, video, and audio information, passing these on to their own decoder chips.

When the signals have been decompressed, the timing information is used to recombine them as a complete PAL or NTSC composite video signal which can be displayed on any TV, monitor, or taped by a VCR.

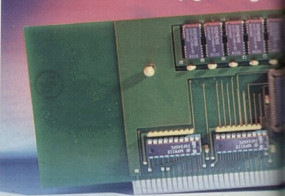
In other words, from a set of files on hard drive, whether digitised video or computer animation files, the Amiga can use Mpeg to create a digital movie then play it back at full speed.

Mpeg's only major drawback at the moment is that in its first incarnation, Mpeg-1, it has a full video frame size of only 352 by 288, which works out at lo-res interlace with overscan. Picture quality is therefore far from TV broadcast standards, and is lower than normal video quality.

When compressing and playing back computer animations, the degradation can be marked, making Mpeg more suitable for multimedia and games work, but digital videos on CD are still possible, and as there are many ways in which the Mpeg encoder software can be tweaked, the original stream can be optimised either for smallest storage space or best quality.

World

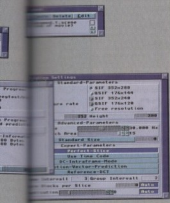
As full motion video at last comes to the Amiga thanks to the new Peggy card, Stevie Kennedy goes digital



in 2001, and the software has the option to cut the quarter screen for fast previews or to encode to dimensions set by the user.

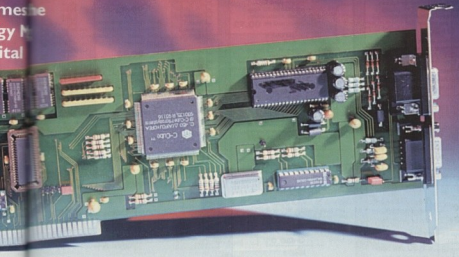
All frames are checked for size and scaled to the finished Mpeg size before encoding, so a lot of time can be saved if the user ensures that his or her source graphics are of the correct size to start with.

Final playback can be PAL, NTSC, or a Workbench window, and there is an



in motion

meshe
gy M
ital



Class cruncher

Mpeg encoding is a complex process governed by strict rules laid down in the ISO CD11172 standard, and works in a broadly similar way to a DPaint animation.

Individual frames are not stored as full frames, but are interpreted as the difference between one frame and another, which means that a finished Mpeg stream need store only a very small amount of the original frame information.

To aid in judging this process, a number of frames, known as Intra frames, are stored completely and used as reference points in the animation. From these, the encoding program works out how much has changed between one point and another, then creates "interpolated" frames, which are the actual differences stored as code.

The techniques used to judge changes are known as forward prediction and bi-directional prediction. Forward prediction is a simple matter of stopping at an Intra frame (or I-frame) and looking ahead to the next few frames coming through the encoding

process before creating interpolated frames.

Bi-directional prediction is much more effective because it looks forward and backwards to the surrounding frames and creates a more accurate picture of animation changes. This method also saves much more space than forward prediction, and is a lynch pin in the Mpeg encoding process.

As an example, a 90 frame Mpeg stream we created for this article contained 16 Intra-frames, 15 predicted frames, and 59 interpolated frames. This means that two-thirds of the original data has been interpreted by Mpeg as changes and stored in a much more efficient way.

Total file size for the 90 original frames was 6Mb, an Arim-5 file created using the frames, scaled to the same size as an Mpeg screen, came to 1.5Mb, and the finished Mpeg stream was only 425k in size. That's a 72 per cent saving in space, and to top it off the finished file will play back at 25 frames per second using Peggy's decoder hardware.

option to have the stream displayed through an ECS videolayer window, so the user who needs lots of previews or some digital movies for presentation and multimedia work should be happy enough.

The best results are obtained by using PAL interface, but until the system software is completed and a more flexible video solution worked out, it is impossible to say how good this would look on tape.

Filtering effects can also be used to radically affect final output. A simple to use menu screen can be summoned to

Just about everything the user could want in one program

offer the user the option to pre-process frames using an AREXX script (ADPro scripts or ProControl scripts would do nicely), drop in a backdrop picture, clip a rectangle from the frame, or apply a con-

volution or colour processor.

This is not the sort of close image control one would expect from a simple encoder, and keeps just about everything the user could want to do inside a single program. Bundled software is nowhere near as professional, and you'll have to keep an eye on our updates column for news of this as it appears.

FLIPPING

At the end of the process, when the finished stream is re-played, the decoded information appears in the display window or screen the user selected from the output options, and he or she can flip backwards and forwards through the movie using on-screen VCR controls.

Eight levels of slow motion playback combined with fast forward and single step viewing give the user full viewing pleasure and ensure that if there is a problem with a scene it can be found and the exact position noted.

Peggy is a complete Mpeg tool for developers and those in the games and multimedia industries who need to create Mpeg movies on the Amiga. The professional encoding software is superb and the board works perfectly as a playback facility.

However, with no direct video output and no real option to add it at the moment, those who can't wait to start creating digital movies might be a little disappointed.

AC

The bottom line

Product: Peggy
Supplier: Ramiga
International
Price: £530
Phone: 0782 398840

Ease-of-use: 8
Implementation: 6
Value for money: 7
Overall: 7

CD³² UG

Amiga CD32 User's Group UK

UNIT D5, HI-TECH HOUSE, BLACKFRIARS STREET, NORWICH NR3 1SF

CDUG's Member's Benefits

- All members receive Mystery Gift
- Members get great discount on all software and hardware
- Members swap shop scheme
- Information on all latest games and hardware
- Monthly newsletter with reviews, charts, gossip and great competitions
- Great bargains you just can't miss
- Win latest hardware and software titles

ALL THIS FOR £9.99

The NEW Amiga CD32 is here! The ultimate in home entertainment. CD32 comes with a 68020 processor from Motorola. It contains 32 bit architecture (which has thrown the A1200 to success). The CD32 also contains Commodore's custom AGA (Advanced Graphics Architecture) chipset named - Paula, Lisa and Alice, which goes to show it has some potential when it comes to graphics, not forgetting its stunning sound capabilities. It comes with 2 megabytes of RAM and a double speed, multi-session CD Rom drive. All this put together and have the best game & home entertainment system available. Play great arcade quality games, listen to your favourite music, CDs and save your favourite CD files...

Amiga CD32 (r2100.00)
(including Diggers & Oscar Games) **£289**
1 Years Membership to CDUG (r10.00)

all this for just £289
Includes 12 months on-site warranty

Tel: (0603) 66202
(0603) 662066



We Accept Payment by Access/Visa



Forthcoming Titles
from C.D.U.G.



Great Money Saving Packages

All 160 packs work on all Amiga's

Fantastic Clip-Art

Both of our Clip-Art packs are of very high quality. Both on screen and printed output. Can be used by all Desktop Publishers & Art Packages and come with an installation program which is fool proof. Allowing you to install them to both floppy and hard drives.

☐ Pack 1 **£9.99**

A vast amount of clips covering Buildings, Foods, Advertising Ads, Aircraft, Animals, Cars, Graphics, Animals, Birds, Love, Holiday, Girls/ Women, Assorted/Misc, Automobiles and Business

☐ Pack 2 **£9.99**

A vast amount of Great Clips covering Education, Fantasy, Plant/Flowers, Old Antiques, Medical, Science, Space, Camping, Father/ Sons, Sport, Trees, War, Recycling, Sailing and Boating

Scalable Fonts

We have 400 scalable fonts, split into 4 packs for £9.99 each. There's 100 scalable fonts for £9.99, they can be used with all DTP's that support Adobe Type 1 fonts. Please ring if interested in Compagraphics.

☐ Pack 1 **£9.99**

☐ Pack 2 **£9.99**

☐ Pack 3 **£9.99**

☐ Pack 4 **£9.99**

We do not have enough room here to show you all these great looking fonts, which is a pity, but if you have a fax machine we will be delighted to fax you a complete sample row! Or send your details, just phone and ask for details.

Games Games

The best games collection, includes Arcade, Board Games, Wind Beggars, Bear Up, Up's, Shoot Em Up's, Boulderdash type, Car, Plane, Cards, Education and More. This pack is updated on new software arrives. Herefore we can not supply lists of contents here! Phone.

☐ £7.00

Desktop Video

For all you Steven Spielberg's to come, this pack is for video enthusiasts if you have not already noticed. Video titles, special graphic effects, tests and more. Comes with on-line video files and a special database for storing your video collection on.

Cut! ☐ £7.00

C Programmers

This pack is a valuable value. It is a complete manual on using the language 'C', far more in-depth than any book. It comes with over 70 on-disk examples, ready for you to run by typing them in first. Covers Screens, Windows, IDCMP, Gadgets, Graphics and much more. 12 chapters in all. You also get a complete 'C' compiler checked in ready for you to compile your programs.

Great Value! ☐ £9.99

Education

Want to educate yourself, or others. Children or adults, both covered for. Includes - Spanish, German, French, Japanese, Maths, Science, Astronomy and much more.

☐ £7.00

Office/Home Business

You run a small business? Or simply want to keep up to date with your financial Write letter Accounts! Well here is your answer. Complete business package all in one. Contains the best word processor, spell checker, database, spreadsheet, account package, graphs and more

all for ☐ £7.00

Emulators Pack

Emulate other computers such as Commodore 64, Spectrum 48k, IBM PC and more by using our Amiga. Play Atari, Amiga on the Spectrum. Word processors on the IBM etc. Full instructions.

☐ £6.00

Compatibility

lots of useful utilities to downgrade your machines to Workbench 1.3.1. Cache off, reduce disk drives. Fixes messy data on an ASD0 Plus and 1200/4000 etc. If this won't, nothing will.

☐ £5.00

AT200/4000 AGA

A package for the lucky owners of an AGA machine such as Amiga 4000 or Amiga 1200. Includes great demos, 24 bit pictures. Some specific 1200/4000 utilities and loads more.

☐ £7.00

Introduction

A package based of people who are new to PC. Gives you a taste of the following: compilers, editors, music, games, utilities and toys, graphics utilities & more.

☐ £5.00

Technostyle

If you are into Rose/Techno style tracks then you will enjoy this package. It contains a music program (MED) and comes complete with great Techno tracks for you to listen to, but not only can you listen to them, you also get beats and lots of instruments, Beats, Vocals, Bass and more. BE YOUR OWN MC. Create your own tracks. Record them onto your tapes.

Make some noise! ☐ £7.00

Fill in Personal Details & send to BATTLEAXE

Tick boxes, rip page out or photocopy



Personal Details

Name
Address

Postcode

If ordering by credit card then simply telephone (0603) 66202 or (0603) 662066 and our staff will take your details

BATTLEAXE Unit D5, HI-TECH HOUSE, BLACKFRIARS STREET, NORWICH, NORFOLK NR3 1SF

Tel: (0603) 66202, (0603) 662066
Evenings & Weekends: (0603) 261060

Plays your Favourite CD Albums

SEASOFT

The Logical Choice

OctaMED Pro V5e - £30.00

Latest 2 disk version of this famous tracker/sequencer -

PULL DOWN MENUS, ON-LINE HELP, FULL MIDI SUPPORT WITH UP TO 64 TRACKS, SAMPLE EDITOR, SYNTHESISED SOUND EDITOR, STANDARD TRACKER OR TRADITIONAL STAVE NOTATION DISPLAY, etc., etc. - (Requires Kickstart 2.04 or later)
V4 NOW ONLY £18.00 - V4 Manual £9.50 - V4 & Manual £26.00

AM/FM
 disk magazine for the serious Amiga musician
 Issue 16 out now
£2.50
 (issues 1 to 14 also available)

AMFC Pro
 Converts many standard music files to Octamed & Music-X format
£10.00

TOTAL IRRELEVANCE
 MED User Group (MUG) disk magazine
 Issue 4 now available
£3.00 (2 disks)
 Issues 1-3 £1.50 each

AM/FM SAMPLES
 16 disks packed with high quality samples
£2.50 per disk

ACC
 AMIGA CODERS CLUB
 hints, tips, tutorials & source codes for assembly language programmers
£3.50 per issue
 (issue 31 now available)

ACC HARDWARE PROGRAMMERS MANUAL
 Essential reading for anyone trying to come to grips with assembly language programming on the Amiga. Easy to follow manual with loads of examples for you to try with the built-in Editor and Assembler.
 Disk 1: (PDP) £1.50
 Disks 2,3 & 4 £5.00 each (£12.50 for the 3)

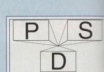
C-MANUAL
 12 disks packed with all you need to know about C programming on the Amiga
£12.00

A-GENE V4.38
 Latest version of this classic genealogical database
£15.00

TECHNOSOUND SAMPLER
£29.95
MIDI INTERFACE
 with leads
£22.50

ALPHA DATA MOUSE
 400 dpi ULTRA HIGH RESOLUTION
£14.95

SUPERSOUND 4
 This brilliant feature packed Sample editor is now available from Seasoft
£4.99
 (manual £10.99)



A MEMBER OF THE PROFESSIONAL STANDARDS FOR DISTRIBUTION

CLR GAMES

TRUCKER-ON 2 (24.50)
 Run your own trucking Company
DRAGON TILES (23.50)
 Excellent Shogun puzzle game
MOTOR DUEL (23.50)
 2 vs 2 racing shoot-em-up
ALL GUNS BLAZING (23.50)
 Incredible virtual tanking action
BULLDOZER BOB (23.50)
 Obstacle course game
PARADOX (23.50)
 Puzzle game
SONIC SMARTHEAD (23.50)
 Kids platform game
SPLOODE (ESCAPE) (23.50)
 Platform game
IMPERIUM (23.50)
 General adventure game
STELLAR ESCAPE (24.99)
 Incredible virtual shoot-em-up
JUNGLE BUNGLE (23.50)
 Jungle kids adventure game
FLOWER POWER (23.50)
 Kids game
MARVIN THE MARTIAN (23.50)
 Help Marvin find Daphne
WHITE RABBIT'S (23.50)
 Save the rabbit from a hole - more than one possible, great puzzle game
TRUCKING manual (23.50)
 Excellent platform game
CRASH (23.50)
 Excellent platform game
CYBERNET (23.50)
 Space shoot-em-up
GO (23.50)
 Excellent commercial quality platform game. A must for any games collection
TRUCKING manual (23.50)
 Publish your machine simulator
CRYSTAL MAZE (23.50)
 Platform puzzle game

CLR UTILITIES

VIDEO TITLER (23.50)
 Professional title creator
TYING TYPING TUTOR (23.50)
 Complete course and speed keys
ALPHA GRAPH (23.50)
 Comprehensive graphics program
PAVE IN RAVE (24.50)
 Music module information
POWER TEST 2 (23.50)
 Excellent word processor
POWER ACCOUNTS (23.50)
 Keep track of your bank account
CAL V1.3 (23.50)
 Personal calculator
STOCK CONTROLLER (23.50)
 Keep track of your stock
SPOON V1 (23.50)
 Personal calendar system
X-SITCH MASTER LITE (23.50)
 Produce comic strip sheets
HARD DRIVE MENU (23.50)
 Easy to use Hard Drive contents
INVOICE MAKER (23.50)
 Create and print invoices
CREATIVE ADVENTURE TOOLKIT (23.50)
 (NOT AS90)
 Easy to use story line creator
FLOW CHARTER (23.50)
 Create flowcharts

ACCESSORIES

(£1.00 P&P)
PYTHON 1 JOYSTICK (23.99)
ZIPSTICK JOYSTICK (23.99)
MOUSE MAT (22.99)
HEAD CLEANING KIT (22.99)
AG900 COVER (22.99)
AG600 COVER (22.99)
A2000 CASE COVER (22.99)
PRINTER STAND (24.99)
PRINTER LEAD (3m) - £23.99
PRINTER LEAD (5m) - £30.99
PAINTEK LEAD (see software) - £10.00
4 PLAYER ADAPTOR (23.99)
JS EXTENDER (24.99)
MJ SWITCH MANUAL (23.99)
1000 DISK LABELS - £1.50
1000 DISK LABELS - £1.00
1000 DISK LABELS - £1.50
DISK BOXES
 1000 DISK LABELS - £12.50
 10 cap - £1.25
 40 cap - £4.50
 100 cap - £5.99
BLANK DISKS
3.5" HIGH QUALITY DISK DISKS
 WITH LABELS
 10 - £22.50
 100 - £42.50

MERRY CHRISTMAS TO ALL OUR CUSTOMERS

AMIGA P.D. & SHAREWARE - IDEAL STOCKING FILLERS

PD/SHAREWARE PRICES - PER DISK

(No. of disks shown in brackets)

1 - 4 disks - £15.00, 5 - 9 disks - £1.25, 10 - 24 disks - £1.00, 25+ disks - £0.90

Unless stated all titles work on A500 (1 meg), A500+, A600 & A1200

UTILITIES

A-BASE (1)
 Excellent database program
AMIGA FOX V1 (1)
 Disk top publishing program
ASTRO 2D V3 (1)
 Screen savers program
ACC 1-4 (1)
 Acc of books ACC 1-4
D-COPY V2 (1)
 Disk copy disk copying program
EASY CAL (1)
 Personal spreadsheet
KICK 1.3 (1)
 Easy to use file manager
KICKSTART 2 (1)
 Kickstart 2 on your new A500
MESSY SD (1)
 Amiga PC file converter
NCMM V1 (1)
 Powerful control package
NORTH-C (1)
 Amiga PC file converter
NUMPAD (1)
 Adds a numeric keypad to an A500
PC TASK V2 (1)
 Shows the real PC emulator
NORTH-C (1)
 Comprehensive dictionary utility
TEXT ENGINE V4 (1)
 Text editor with observed preview
Y-MORPH (1)
 Image stretch, morphs and warps

MUSIC

BASS SOUNDS (1)
 High quality bass samples
CHRISTMAS MUSIC (1)
 Christmas music
ELECTRIC MUSIC (1)
 Comprehensive musical CD library
DRUM KIT (1)
 Drum kit for rock band
MD V3.21 (1)
 High version of the classic audio
MIDI CHART VOL 1 (1)
 MIDI charts from the Club
NO SAMPART (1)
 No need for a sampler with this
OCTAMED V2 (1)
 Octamed V2 on disk
OCTAMED V5 (1)
 Complete manual on disk
OCTAMED V5 (1)
 Complete manual on disk
X-BEAT PRO 1.3 (1)
 Drum synthesizer

GAMES

18TH HOLE GOLF (2)
 The only 18 hole golf game available
AGATRON STAR TREK (2)
 A must for all trekkers
AIRPORT (1)
 Airport simulation
ANDY'S WORLD (1)
 Andy's world
ASSASSIN'S FIX DISK (1)
 Fix disk for the assassin
CONQUEST (1)
 Conquest
DUNGEON FLUMPER (1)
 Dungeon flumper
GUSH (1)
 Gush
KRONOS (1)
 KRONOS
LEATH (1)
 Leath
ROBODUZZ (1)
 Roboduzz
STAR BASE 13 (2)
 Star base 13
SUITS (1)
 Suits
SUITS (1)
 Suits
TETRIS PHO (1)
 Tetris pho

A1200 ONLY

A1200 INTRO (1)
 Collection of 4 great demo tapes
AGAT TETRIS (1)
 Game and useful utilities
ANDY'S WORLD UTILITIES (1)
 Useful utilities including PShow
ASSASSIN'S FIX DISK (1)
 Fix disk for the assassin
CYNOSIDE SLEDSHOOT (1)
 Cynoside sledshoot
HARD DRIVE MENU (1)
 Easy to use Hard Drive contents
K RHODES PICS (1)
 Rhodes pics
NIGHTBRED (1)
 Nightbred
SLEEPLESS NIGHTS (1)
 Sleepless nights
STAR BASE 13 (2)
 Star base 13
SUITS (1)
 Suits
SUITS (1)
 Suits
TETRIS PHO (1)
 Tetris pho

CD ROMS

CDPD 1 - £19.95
 FRIED FISH 1 to 650 ETC.
CDPD 2 - £19.95
 JOCKEY, JAM & MORE FISH ETC.
CDPD 3 - £19.95
 FISH 761-800, AGA HAM - 8 PICS, IFP
 CLIP ART, CLASSIC BOOKS etc
 AN INSTANT PD LIBRARY ON THIS
 BRILLIANT 2 DISK COLLECTION

CD DISK £1.00 (inc p&p)

Please add 50p P&P to P.D./Licenseware orders (£1.50 Europe, £3.00 rest of World) or £1.00 if your order includes other titles (Europe & rest of World at cost...)

CD DISK £1.00 (inc p&p)

Subject to availability, all orders are normally dispatched within 24 hours of receipt

SEASOFT COMPUTING
 (Dept AC), The Business Centre, First Floor, 80 Woodlands Avenue,
 Rustington, West Sussex BN16 3EY
 or telephone
(0903) 850378
 9.30am to 7.00pm Mon-Fri (to 5pm Sat)

ASSASSINS
GAMES 1 - 138 +
 latest titles always available
 call for complete list



we stock **FRED FISH**
1 - 910 +
 (Fish Cat £1.50)

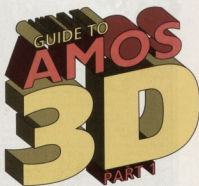
Well, we've given you Amos 3D, but what can you do with it? You can use it to create brilliant 3D objects for all your Amos creations, and even compile programs containing 3D shapes, too!

Amos 3D, like the compiler and other add-ons like the excellent Amos TOME, is an Amos extension. This means that it adds commands to the Amos command set. You also have an editor program called Object Builder, or OM, with which you can create your own 3D objects for use with Amos.

You run OM either by typing OM if you're a shell user, or simply clicking on the icon if you are running from Workbench. OM prefers to run alone, so free up memory by quitting any other programs you may



Copy an object to a working shelf and you can start to edit it to taste



Amos exponent Phil South looks into Amos 3D, in the first of a two-part tutorial

Digital sculptures

be running. Although there are a lot of example objects on the disk to get you going, you have to create your own objects using the OM. You create shapes using primitives and bolt them together into bigger objects.

The objects you make can be shaded any colours you like, and you can even draw small bitmaps onto the sides of shapes to make them more interesting.

The program features a lot of tools for stretching, squashing and forming primitives, like squares, circles, cubes and pyramids. You copy the primitives to work areas on the screen called "shelves", where you work on them with the mouse.

To copy a shape from the shelf it is stored in (from the ten small ones at the top of the screen) to a shelf you are working in (the two big spaces underneath) you simply click the Copy button.

Once a shape is copied into a working shelf, you can begin to move it around and alter its structure. You can deform a shape in many ways, like squashing and stretching the whole shape, or even moving a single side while keeping the rest of the shape still.

You do this by selecting a point, line or face, and deforming the selected item by clicking on the Rotation control (or the arrows next to it for finer control) while holding the button down and moving the mouse.

Selected faces have a special marker on them so you know which is the active face

when doing an operation on it. Moving a single face is really clever. Here's what I mean: Load a cube into the work shelf. Select a line on the cube by using the select icons down the left-hand side.

PULL TOOL

The tall button down the right of the selection icons is the Pull tool. Click on either end of this to pull the line back and forth. Click on another line or face and pull it back and forth. Notice how the shape changes.

The RGB tool is used for changing colours, allowing you to change the colours of the objects and faces on-screen. You can use the information in this requester to gener-

erate Amos palettes which are suitable for the objects. Once you have reshaped the primitives into something a little bit more interesting, you can glue them together to make other, more complex objects. This is done simply by selecting the faces that need to be glued together on the two objects; and once selected this is done automatically.

Shrink the object you just twisted about to half the size by squashing it in two dimensions. Select your object and click the Group Plus symbol. Now use the stretch/shrink keys to shrink the object down.

Load another object into the other work shelf. Then select a face on that object, and a face on the previous object. With two faces

selected, click on the Glue button, and the two objects are automatically glued together.

If the blocks look funny when you do this it may be that the wrong block is being printed first. Use the Precedence/Culling button to correct this.

Then you can apply surface detail - patterns in four colours which you can map to the selected face of the object. This is done by drawing lines on a grid, which are then filled before they are attached to the face of the object.

You select a face, and then open the Surface Detail tools. You draw on the grid and the detail comes out on the shape, the lines being filled. The shapes you can do with this utility are fairly elementary, but it's surprising how little the brain needs in the way of clues to make a 3D shape look right.

Just a door on the side of a car shape or a window in a house can make the difference between a few shapes and some recognisable objects.

● Now we've made a shape, next time we'll take it for a spin. See you then...



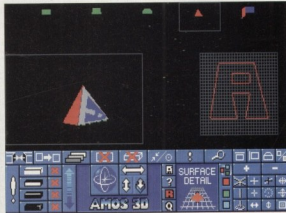
Head start

With Amos 3D, this double-tutorial and a copy of the original manual, you'll be incorporating 3D objects into your own programs in no time at all.

If you don't yet have the manual, turn to our disk offers on page 29 for an unbeatable offer!

File formats

The objects are in a very specific format, and each object is in fact a collection of a number of files, not just one. If you intend moving objects around, you will have to shift all the components of the object, and not just the first one you come to.



It should be easy to map surface detail onto any 3D object



Software Expressions



Introducing some of the best public domain & shareware disks available for the Amiga today. Go on...express yourself!

++Plus compatible UTILITIES

- 0001 A-Game (1 meg)
- 0016 Beethoven (3 meg)
- 0033 Education 1
- 0035 Education 3
- 0038 Education 4
- 0052 Business Card Maker
- 0052 Cartoon Brushes
- 0056 Database Master
- 0103 10 Tester
- 0108 Mr. Clip Art
- 0134 Art Cash
- 0136 Airbase Prof
- 0140 Text Engine
- 0142 Super Fonts
- 0147 MORED V2
- 0152 PC Task
- 0153 File-A-Box
- 0154 GED
- 0164 Deluxe Paint Tutor
- 0168 World Paint Kit
- 0165 A-graph
- 0175 Text plus VERSION 4
- 0178 (2 Discs) Analytic ALC
- 0179 Calorie Base
- 0180 GCSE Maths
- 0185 Astronomy
- 0186 S-Move
- 0190 Shadow disk maker
- 0194 Text concepts
- 0195 Home Manager
- 0203 Term V4 (2 disks)
- 0204 Race Rider
- 0205 ABC Adventure Creator
- 0210 Poets Poole Version 2
- 0211 Training Log
- 0212 Back Talk
- 0214 The Money Programme
- 0217 Music Miblock
- 0230 Jingles Labels
- 0232 Cheap Book Accountant
- 0233 Engineers Kit
- 0235 Sleepless Nights
- 0236 Word Power
- 0237 Stock Analyst
- 0238 Sport Farm
- 0239 Quizzes DTP
- 0240 Little Office
- 0242 Budgets 134

DEMOS

- 0015 Aggron Star Wars (1 meg/2 disks)
- 0058 Enterprise leaving disk
- 0075 Gals of sport
- 0146 The Run (1 meg)

- 0162 Stealthy Manoeuvres (1 meg)
- 0177 Star Trek Animations
- 0221 Debbie Harry (2 disks)
- 0223 Reincarnation of Sgt. Pepper (2 disks, 1 meg)
- 0253 WWF Wheelies
- 0261 Best of (7 disks)
- 0271 Outplay (5 disks)
- 0279 Desert Storm
- 0280 Jesus on 'E' (2 disks)
- 0281 Design Dreams
- 0282 How to seal a car...

MUSIC

- 0006 Balance remix
- 0032 Godrain loves the world
- 0061 Anas tree
- 0062 Random Access
- 0081 Miami Vice
- 0084 The Wall
- 0090 Led Zepplin
- 0093 MC Hammer
- 0094 Sams P-Roses
- 0097 No Limit (2 disks)

GAMES

- 0205 All New Star Trek (2 drives)
- 0208 Ballonancy
- 0210 Biliard
- 0213 Bullrun
- 0214 Adventure Solutions (2 disks)
- 0215 Creation (1 meg)
- 0216 Dragons Den (2 disks)
- 0221 Dimension Mission (1 meg)
- 0222 Electronic Train Set (1 meg)
- 0225 Intrepid
- 0243 Learn and Play 1
- 0244 Learn and Play 2
- 0251 Marathon Mine
- 0253 Mayhem
- 0261 Pick up a puzzle (1 meg/2 disks)
- 0262 Pacman
- 0265 Pike Kingdom (2 disks)
- 0271 Return to Earth (1 meg)
- 0272 Star Trek - Next Generation
- 0276 Star Trek
- 0281 Trek Trek
- 0284 Wet Beaver Tennis
- 0290 Whitted One
- 0301 Simulation 1 (1 meg)
- 0309 Wheel of Fortune
- 0324 Napoleonic Warfare
- 0329 Stock Market
- 0330 Battle Pong
- 0343 Card Shop
- 0348 Galactic Food Fight
- 0349 Robotic Revenge

- 0351 Jeannem That's not on the Syllabus
- 0352 Loping Larry
- 0353 Growth
- 0355 Mission X
- 0357 Quadri
- 0362 Skyland 2
- 0365 Super Soccer Challenge
- 0378 Amos Creek
- 0379 Tap Secret
- 0375 White Wall
- 0376 White Knight
- 0380 Tank Attack
- 0384 Super League Manager
- 0387 Flagcatcher
- 0389 Grand Prix Simulator
- 0393 Games Galore Ten
- 0394 Croak
- 0395 Art of Noise and more
- 0396 Theme music
- 0397 Play Floyd classic
- 0398 Starmay to Heaven etc
- 0399 You Can't Forget This
- 0400 Heavy Metal Freaks
- 0401 Cathy Lanes
- 0402 USS Enterprise classic
- 0403 Drop bombs on city from hell
- 0404 Classic bad girl game
- 0405 Horizontal shoot-em-up
- 0406 High quality
- 0407 War-game, based on US Civil War
- 0408 Control army
- 0409 Loads of hints of commercial games
- 0410 Excellent game written in AMOS
- 0411 Difficult adventure quest
- 0412 Similar to Ballonancy, good fun
- 0413 Construct own train set
- 0414 Shoot-em-up
- 0415 Good for the kids
- 0416 More bad maths, etc
- 0417 More fun for the kids
- 0418 Great Boulderball game
- 0419 Brilliant shoot-em-up
- 0420 Good for the kids
- 0421 The classic game still here
- 0422 Tricky adventure game
- 0423 Space adventure
- 0424 Not as good as G005
- 0425 Classic snake game
- 0426 Addictive shoot-em-up
- 0427 Test your Star Trek knowledge
- 0428 Good general knowledge quiz
- 0429 5 games including Maths
- 0430 TV Quiz computerised
- 0431 High-quality simulation
- 0432 Speculate at no risk!
- 0433 Table tennis game-good
- 0434 Well presented card games
- 0435 Show up those bobbies
- 0436 Difficult platform adventure
- 0437 Jump into the Syllabus
- 0438 Jump into elevators
- 0439 Destroy an expanding brain
- 0440 Quality shoot-em-up
- 0441 Difficult puzzle game
- 0442 Create a childrens adventure
- 0443 Car racing game
- 0444 "Oost"
- 0445 Quality platform game
- 0446 NEW Wizard shooting game
- 0447 NEW Excellent shoot-em up game
- 0448 World War 2 Simulation
- 0449 Manage your own Soccer team
- 0450 Find the flags. Very addictive
- 0451 Excellent
- 0452 14 excellent games
- 0453 Frogger clone
- 0454 Try & catch a parachute
- 0455 Hunchback game
- 0456 Excellent strategy game
- 0457 Casino Classic
- 0458 Guide Spacehog through Terrain
- 0459 Also includes a leveler
- 0460 Shooting game
- 0461 Bring Paul Robinson to court
- 0462 Graphics Adventure
- 0463 3 excellent games
- 0464 Quiz on cult TV programme
- 0465 1 on 1 battle & transcend game
- 0466 4 games including 3D Maze
- 0467 Addictive card games
- 0468 These include Dr Mario, Indiana & Mad Bomber 2
- 0469 Ghost Ship, Clatters etc
- 0470 2 player shooting game
- 0471 Excellent titles clone
- 0472 Version 1.02 Adventure
- 0473 Graphic adventure
- 0474 Quiz which includes Editor
- 0475 10 Puzzle Games
- 0476 Includes 3 Games
- 0477 Excellent Adventure Games
- 0478 Explore the dying planet
- 0479 Patrol your own airport
- 0480 5 Games including Spaceback
- 0481 Management game of 150 football Type Sport
- 0482 Shareware game: Brand New!
- 0483 Shoot-em-up
- 0484 Excellent game
- 0485 Stock exchange game
- 0486 Armes writing based type game
- 0487 Racing driving game
- 0488 3 games including Enigma
- 0489 Excellent golfing game
- 0490 Very similar to golfing
- 0491 Space shoot em up

+ Indicates + Compatibility -- or a 600 Compatibility

Blank disks

10 for £5.50
or 60p each

POSTAGE

UK orders : 75p
Europe : £1.50
World : £3.00

PRICES

PD....£1.25 per disk
or
£1.00 each for 15 or more.

Christmas Special Offer

30 disks or more
at 90p each
offer ends 24th December 1993

CATALOGUE DISKS

75p each
Details of over 1500
disks in our library



Send cheque/postal order made payable to :
SOFTWARE EXPRESSIONS,
Unit 3/4, 117 Kensington Avenue, Bishopston,
Bristol BS7 9EX
9am-5pm Mon to Fri



KICK 1.3
DOWNGRADE YOUR
A1200 AND/OR A600 TO
WORKBENCH 1.3
YOU CAN NOW RUN ALL
OUR SOFTWARE



EMERALD Creative Technology Ltd

Rapid House,
54 Wandale Bank,
London SW19 1DW
Tel: 081-715 8866
Fax: 081-715 8877

Pen Pal	£29.99
Final Copy 2	£69.99
X-Copy Pro latest version	£39.99
Amos Professional	£39.99
Amos Compiler	£29.95
DevPac 3	£59.95
CanDo v2.5	£119.95
PC Task	£39.95
Broadcast Titrer 2 Super HiRes AGA	£199.99
Real 3D Classic	£79.95
Real 3D v2.0	£375.95
Big Alternate Scroller	£39.95
Arena Accounts	£89.95
Art Department Professional v2.3	£146.95
Doug Cranes Pro Control	£55.95
Cygnus Ed Pro 3.5	£79.95
Morph Plus	£146.95
Sharp JX100 Driver ASDG	£99.95
True Print 24	£55.95
Bars & Pipes Professional v2.0	£199.95
One Stop Music Shop	£499.99
SuperJam v1.1	£79.95
Synch Pro	£151.96
Triple Play Plus	£169.95
Megalosound	£29.95

Bars & Pipes add on kits prices start at £29.99, please call

Epson GT6500 scanner with ASDG driver software	£799.99
Video Back-Up System	£55.95
Bruce Smith A1200 Insider Guide	£13.95
Bruce Smith A600 Insider Guide	£13.95

We stock the full range of Bruce Smith Books

Editmate Video Editing	£194.95
Brilliance	£159.95
Deluxe Music Construction Kit v2	£71.95
Directory Opus 4 - Latest Version	£49.95
Rendale 8802 FMC Genlock	£159.95
Technosound Turbo 2.0	£39.95
S Base Personal 4 Oxii	£99.95
Superbase Professional IV v1.3	£239.95
Vidi 12 Realtime	£159.00
Vidi 24 Realtime	£239.00
Scala 500 Hometitrer	£79.95
Art Expressions	£145.00
Typesmith v2	£99.95
Pagestream 2.22 (unboxed)	£69.95
Distant Suns v4.2	£49.95
Vista Pro 3.0	£59.95
Makepath for Vista	£24.95
Terraform for Vista	£24.95
Caligari 24	£95.00
Caligari Broadcast v3.1	£349.99

Carriage charges: Orders under £50 - £2
£51-£100 - £3. Over £100 - £4.50

Call our credit card
hotline for immediate despatch.

Orders by post: Please make your cheques
payable to 'Emerald Creative Technology Ltd'
and allow 7 days for clearance.

Goods are sold subject to our standard terms and conditions of sale
and are available on request.

Specifications and prices are subject to change without notice.

All prices include VAT.

Credit Cards not debited until goods are shipped

NODDY'S BIG ADVENTURE

Noddy's Big Adventure is the sequel to the highly successful Noddy's Playtime. It takes children to the North West corner of Toyland and includes 13 different programs to educate and entertain children for hours on end.

This graded creativity and entertainment package is specifically designed for 3-7 year olds and relates to the early requirements of the National Curriculum.

Drive with Noddy in his car, pick up passengers along the way and visit many exciting locations.

- Kitchen Fun - sequencing, colour and shape matching and vocabulary
- Noddy's Scales - number matching through to addition
- Ticky Trees - memory, sequencing and the language of colour and shape
- Can you Find me? - shape and colour recognition
- Bert's Scrapbook - sequencing and reading skills
- Beach Sorter - sorting
- Picnic Attack - water fun game

Junior Word Processor - this excellent utility develops story telling skills. Its scope is outstanding and features many facilities found in 'grown up' word processors. There is also a word game in each level to create an element of fun.

Available for: Amiga, Acorn Archimedes, PC and PC Windows.



NODDY'S PLAYTIME

Noddy's Playtime added a new perspective to educational games, the outstanding value from this extensive package has set new standards of parental expectation in this important area of software based on learning with fun.

Drive around Toy Town, explore exciting locations and learning programs and a full Junior Art Package packed full of creative fun. Designed for 3-7 year olds.

Available for: Amiga, Acorn Archimedes, PC and ST.

PLAYTIME & BIG ADVENTURE TWICE THE LEARNING EXPERIENCE



THE AMIGA DEAN CO

Leam Gate, Leamington, Warwickshire CV32 2LX
Tel: 0452 733000 Fax: 0452 739863

Available from: Becks, Currys, Deans, Escom, Future Zone, Game Ltd, John Lewis, John Menzies, PC World, Remains, Tandy, The Computer Store, Virgin and many specialist outlets.

Copyright © 1992 by Dean Co. All rights reserved. This software is a registered trademark of Dean Co. in the UK and other countries. All other trademarks are the property of their respective owners. This software is a registered trademark of Dean Co. in the UK and other countries.

There's a lot going for you!

Quarterback Tools

The complete Quarterback Tools software appeared on last month's Amiga Computing CoverDisk. You can still buy the manual or the upgrade to Quarterback Tools Deluxe.

Manual only
£14.95



For only £14.95 including p&g you'll find this superb quality manual indispensable as it guides you through all of the software's features in a user friendly, easy to use manner.

You can upgrade your CoverDisk to Quarterback Tools Deluxe, which includes the latest version of Quarterback Tools and numerous utilities to make maintaining your system easier than ever.



Only
£39.95

Utilities include:

- Replicator – disk duplication system
- Locator – locates files
- Encryptor – protects sensitive files
- File Eraser & Disk Eraser – eliminates all traces
- Keystroke finder – shows how to type any character
- System Mover – moves all system files
- Brain Cloud – protects your disk

Send this form to Quarterback Offers, Europress Enterprise, Europa House, Adlington Park, Macclesfield SK10 4NP or telephone 0625 878888. Allow 28 days for delivery.

Quarterback order form

Please send me...

- ☐ the Quarterback Tools manual at £14.95
- ☐ the Quarterback Tools Deluxe upgrade at £39.95

I wish to pay by:

- ☐ Cheque / postal order payable to Europress Enterprise Ltd
- ☐ Credit card _____ expiry date ____/____

Card No.

Deliver my order to:

Name (Mr/Mrs/Miss) _____

Address _____

Postcode _____ Daytime phone _____

Allow 28 days for delivery

☐ Tick this box if you do not wish to receive promotional material from other companies

Are you using one of our recent CoverDisks and wish you'd taken up an offer that went with it? Well, here's another chance to make the most of your free programs

Let's harmonise!

Now that all you budding musicians have the complete Harmoni software on last month's superb CoverDisk, make sure you get the most out of it with this exclusive manual offer.

For only £8.95, including postage and packaging (UK), you can have the original Harmoni manual. It will help you get up and running quickly, guide you through essential sequencer operations, and explain some advanced tricks to add polish to your tunes.



Manual
only
£8.95

The manual also contains comprehensive sections on starting up, recording and editing tracks, recording more sequences, assembling a song sequence and song mode on-screen controls and modes.

For more information on Harmoni call 0295 252524.

Send this form to Amiga Computing Harmoni offers, Immediat, B3 Edison Road, St Ives, Huntingdon PE17 4LF, or if you are paying by credit card you can telephone 0480 496688. Allow 28 days for delivery.

Harmoni order form

Please send me...

- ☐ The Harmoni manual at £8.95 including postage and packing (UK)

* Overseas readers need to pay an extra £2 towards postage
* Australian readers can buy the manual for \$25. Cheques should be made payable to Activision, 10 Agnes Street, Meadow Bank, Sydney, NSW 2114

I wish to pay by:

- ☐ Cheque / postal order payable to The Disk Company
- ☐ Credit card (Access/Visa/MasterCard) expiry date ____/____

Card No.

Deliver my order to:

Name (Mr/Mrs/Miss) _____

Address _____

Postcode _____ Daytime phone _____

Allow 28 days for delivery

☐ Tick this box if you do not wish to receive promotional material from other companies

EGVP

AMIGA

500 OWNERS POWER UP!

NEW

LOW

PRICES

SAVE

UP TO

£100

AS500-HDB+

PICTURE SHOWS GVP HDB+ THE AS500 FEATURES SIMILAR DESIGNER STYLING

Power up your A500 with the very best in Amiga peripherals. Give your computer a new lease of life with a hard drive or accelerator plus hard drive from GVP.

These powerful, award-winning products plug neatly into your A500 or A500PLUS, giving you more storage and more speed. The improvements don't stop there! In almost every area of Amiga operations these GVP peripherals can enhance the performance of your A500 or A500PLUS. Both models can upgrade your Amiga's RAM, making operations run even faster. You can add a PC emulator, (featured below left), which enables you to run thousands of PC software titles. Further hard drives, back-up systems and CD-ROM HDB+ and AS300 are the undisputed premier Amiga peripherals available.

If you were thinking about upgrading to an A1200 or A4000, think again. With an A500 AS300 Accelerator upgrade, your A500 will be 14 times faster than a normal A500, almost nine times faster than an A1200 and over one and a half times faster than the mighty A4000 030 (see chart below).

AT NEW LOW PRICES!

MORE STORAGE

HARD DRIVES + RAM EXPANSION

A GVP HDB+ Hard Drive will have an immediate effect on your Amiga. Where you used to constantly swap disk, wait for files and programs to load and sit around waiting for disk accesses, you will now be pushed to keep up with the speed of your Amiga. Hard drives are used for the same storage purposes as floppy disks, but can hold a great deal more information and access this data much more quickly. The AS500 HDB+ (pictured above) provides the ultimate in hard drive performance. It can also increase the memory of your Amiga by up to 8Mb, support up to six SCSI devices and provide PC compatible emulation via its custom expansion slot (mini slot) see left.

COMPARISON CHART

FEATURES/MODEL	GVP HDB+	ICD TRAFECTA II	COMMODORE AS300 20mb	EYESHAW REFERENCE 100
*TRANSFER RATE: Kb per second	1096	1028	564	400
GVP DESIGNER STYLING	✓	-	-	-
RAM EXPANSION(MAX)	8Mb	2Mb	2Mb	4Mb
MINI SLOT (FOR FUTURE EXPANSION)	✓	✓	✓	✓
SCSI INTERFACE	✓	✓	✓	✓
GVP PERFORMANCE FASTEST RUN	✓	✓	✓	✓
DEDICATED POWER SUPPLY	✓	✓	✓	✓
PRICES FROM	£199	£295	£159	£329

* the undisputed fastest Amiga hard drive available in the world.

Computer Mart April '92
"Without doubt the best hard drive available for the A500." Amiga Format April '93

HDB+ 42mb HD 0mb RAM

PREVIOUS PRICE £249

£199

INC VAT - HAR 0640

HDB+ 80mb HD, 0mb RAM

PREVIOUS PRICE £349

£299

INC VAT - HAR 0640

HDB+ 120mb HD, 0mb RAM

PREVIOUS PRICE £449

£399

INC VAT - HAR 0640

MORE SPEED

40MHz ACCELERATOR + HARD DRIVE + RAM EXPANSION

The GVP AS300 is a unique combination of a Hard Drive, RAM upgrade and an Accelerator. Inside is a full Motorola 68030c processor running at 40MHz, making your AS300 faster than you thought possible - almost nine times faster than an A1200. And, fitting a PGA machine co-processor (40MHz 68882, ref. UPG 182, £129 inc vat) can improve this still further, with some operations being 300 times faster than an A500. In addition you can add up to 8Mb of 32-bit RAM, which further enhances performance.

FASTER THAN AN A1200 OR A4000 030

An AS300 with the GVP AS300 fitted will be considerably faster than either the A1200 or A4000. This is possible because the AS300 uses a 40MHz 68030c processor, whilst the A1200 uses the slower 14.19MHz 68020c processor and the A4000-030 uses the 25MHz 68030c processor.

Features include:

- 40MHz 68030c Processor (The A1200 has a slower 14.19MHz 68020c processor)
- Up to 8Mb of 32-bit Memory, 1Mb of 32-bit Fitted
- PLUS Same Features as HDB+
- Mini-slot for Future Expansions, see PC Emulator - far left
- Cut Off Switch for Game Compatibility
- Dedicated Power Supply and Fan Unit
- Factory Installed Hard Disk
- High Speed DMA SCSI Controller - Can Handle 7 Devices

FAST 9499

GVP's AS300 contains 2 32MB sockets for any fast RAM expansion. Also, the AS300 includes the RAM. Options are 2 x 16mb, 1 x 16 x 2 x 8mb or 2 x 8mb in the slot of 68030.

AS300 16mb HD, 16mb RAM

PREVIOUS PRICE £499

£499

INC VAT - HAR 0640

AS300 40MHz 68030C, 42mb HD, 16mb RAM

PREVIOUS PRICE £499

£599

INC VAT - HAR 0640

AS300 80mb HD, 16mb RAM

PREVIOUS PRICE £599

£699

INC VAT - HAR 0640

AS300 120mb HD, 16mb RAM

PREVIOUS PRICE £699

£799

INC VAT - HAR 0640

To: Silica Systems, AMCOM-1393-120, 1-4 The Mews, Hatfield Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND ME A GVP COLOUR BROCHURE

MAIL ORDER: 1-4 The Mews, Hatfield Rd, Sidcup, Kent, DA14 4DX Tel: 081-309 1111

LONDON SHOP: 52 Tottenham Court Road, London, W1P 0BS Tel: 071-586 0000

LONDON SHOP: 52 Tottenham Court Road, London, W1P 0BS Tel: 071-586 0000

SIDCUP SHOP: 1-4 The Mews, Hatfield Rd, Sidcup, Kent, DA14 4DX Tel: 081-309 1111

ESSEX SHOP: 52 Tottenham Court Road, London, W1P 0BS Tel: 071-586 0000

IPSWICH SHOP: 52 Tottenham Court Road, London, W1P 0BS Tel: 071-586 0000

To: Silica Systems, AMCOM-1393-120, 1-4 The Mews, Hatfield Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND ME A GVP COLOUR BROCHURE

Mr/Ms/Ms/Ms: Initials: Surname: Company Name (if applicable): Address: Postcode: Tel (Home): Tel (Work): Which computer(s), if any, do you own?

EGVP: Adjusted prices and specifications may change! Please return the coupon for the latest information.

PC EMULATOR

FOR USE WITH HDB+ or AS300

For extra power and flexibility you can also use GVP's custom expansion slot (mini slot) to fit a GVP PC emulator. This compact circuit board turns your Amiga 500 into a fully featured PC compatible computer, capable of running thousands of PC software titles, including Windows and MS-DOS 6.

- 80286 16mb+ processor
- Nonion SI index of 15
- Compatible with MS-DOS version 3.2 or later
- Windows 3.x compatible
- Includes 512K of FAST RAM
- Built-in video adapter emulates VGA/EGA (mon), and Hercules
- Socket for optional 80287 co-processor
- Hard drive compatible
- Emulation support of Parallel and Serial ports, sound, realtime clock, CMOS RAM and extended memory

PC EMULATOR

PREVIOUS PRICE £299

£199

INC VAT - EMU 0500

ALL PRICES INCLUDE VAT - DELIVERY IS FREE OF CHARGE IN THE UK MAINLAND

SILICA - THE AMIGA SPECIALISTS

Before you decide when to buy your Amiga computer, we suggest you first carefully check out 'SILICA' you will find a company where you can buy your Amiga computer at a price you can afford. And, with the company you may find a lot of other things you need for your Amiga.

At Silica, we ensure that you will have nothing to worry about. With our excellent reputation and our own staff, we can give you the assurance that you are getting a computer with an understanding which is second to none. But don't just take our word for it. Come and see for yourself the service that we can give. Free literature and begin to experience the "Silica Service".

COMMODORE APPROVED UPGRADER: Silica has been approved by Commodore to be the nearest.

FREE OVERNIGHT DELIVERY: Do all functions either in the UK or overseas.

TECHNICAL SUPPORT RELPINE: A team of Amiga specialists will be at your service.

PRICE MATCH: We match competitors on a "same price - same price" basis.

ESTABLISHED 15 YEARS: We have a proven track record in professional computer sales.

PART OF A £250K A YEAR COMPANY: We are now over 250 staff.

WE ARE: We are reliable, value and profitable.

BUSINESS + EDUCATION + GOVERNMENT: Volume discounts are available. Tel: 081-309 1111

- SHOWROOM: We have demonstration and training facilities at all our stores.
- THE FULL STOCK RANGE: All our Amiga requirements are available from one supplier.
- PRICE: CASH ALLOWANCES: We will be pleased to you, with special reduced price Amiga offers, as well as lots of other Amiga software and peripherals.
- PAYMENT: We accept most major credit cards, cash, cheque or monthly terms (APR 20.9% - written quotes on request).

Silica

HOT LINE 081-309 1111

EMULATOR

- | | | |
|--------------------------|-------|--|
| <input type="checkbox"/> | B997 | IBM EMULATOR FOR AS/400 |
| <input type="checkbox"/> | C465 | 2 SPECTRUM EMULATOR |
| <input type="checkbox"/> | C554 | PC TASK V2.03 (AGA)
C64 PACKAGE V2 |
| <input type="checkbox"/> | B979 | ATARI ST EMULATOR |
| <input type="checkbox"/> | C15-2 | QL EMULATOR |
| <input type="checkbox"/> | B897 | KICKSTART 2 EMULATOR |
| <input type="checkbox"/> | C495 | KICKSTART 3 EMULATOR
PC EMULATOR FOR AS/400 |
| <input type="checkbox"/> | C495 | KICKSTART 3 EMULATOR |
| <input type="checkbox"/> | C581 | SOFT AGA EMULATOR |

- ALSO IN STOCK...
DISKS DISKS...
MEMORY EXPANSIONS...
PRINTERS... AND MORE
- PC EMULATOR
PC TASK v2.xx
& Boot Disks

- Amiga 1200 Degrador**
Includes various tools to degrade your A1200 so it can run the oldest Amiga software.
Titles included: Kill A1202, 2, Kick 1.3, The Degrador, FakeMem etc.
Order code: ☐ C356
- XMAS CLIP-ART**
A three disk set of very high quality graphics, for use in any DTP package.
Deluxe package:
Order code: ☐ ART35.2

- DEMOS**
- ☐ B406 WET BLAVER MIX. A 1 meg of music demo. Great stuff.
 - ☐ B410-2 MR POTATO HEAD.
 - ☐ B491 "I'VE GOT THE POWER".
 - ☐ B493 THE BOUNCER. Kicks like a m... music track. Wow...
 - ☐ B683 LEMMINGS VS ROBOCO.
 - ☐ B692 R.A.F. "Software Failure".
 - ☐ B695 FRAXION "Future visions".
 - ☐ B725-3 ULTIMATE JABRE. Three disks full of art & music by Jare.
 - ☐ B736-4 PLAYSID "A-Z OF C64 TUNES".

- 8774-27 PARADISE.
8779 ALCAZAR/ALBUQUERQUE, Not
8800-03 THE GREAT ANIM!
8806-27 PROTECT TECHNI.
8825-5 ALCAZAR/ALBUQUERQUE, Not
8826-03 THE GREAT ANIM!
8827-03 THE GREAT ANIM!
8828-03 THE GREAT ANIM!
8829-03 THE GREAT ANIM!
8830-03 THE GREAT ANIM!
8831-03 THE GREAT ANIM!
8832-03 THE GREAT ANIM!
8833-03 THE GREAT ANIM!
8834-03 THE GREAT ANIM!
8835-03 THE GREAT ANIM!
8836-03 THE GREAT ANIM!
8837-03 THE GREAT ANIM!
8838-03 THE GREAT ANIM!
8839-03 THE GREAT ANIM!
8840-03 THE GREAT ANIM!
8841-03 THE GREAT ANIM!
8842-03 THE GREAT ANIM!
8843-03 THE GREAT ANIM!
8844-03 THE GREAT ANIM!
8845-03 THE GREAT ANIM!
8846-03 THE GREAT ANIM!
8847-03 THE GREAT ANIM!
8848-03 THE GREAT ANIM!
8849-03 THE GREAT ANIM!
8850-03 THE GREAT ANIM!
8851-03 THE GREAT ANIM!
8852-03 THE GREAT ANIM!
8853-03 THE GREAT ANIM!
8854-03 THE GREAT ANIM!
8855-03 THE GREAT ANIM!
8856-03 THE GREAT ANIM!
8857-03 THE GREAT ANIM!
8858-03 THE GREAT ANIM!
8859-03 THE GREAT ANIM!
8860-03 THE GREAT ANIM!
8861-03 THE GREAT ANIM!
8862-03 THE GREAT ANIM!
8863-03 THE GREAT ANIM!
8864-03 THE GREAT ANIM!
8865-03 THE GREAT ANIM!
8866-03 THE GREAT ANIM!
8867-03 THE GREAT ANIM!
8868-03 THE GREAT ANIM!
8869-03 THE GREAT ANIM!
8870-03 THE GREAT ANIM!
8871-03 THE GREAT ANIM!
8872-03 THE GREAT ANIM!
8873-03 THE GREAT ANIM!
8874-03 THE GREAT ANIM!
8875-03 THE GREAT ANIM!
8876-03 THE GREAT ANIM!
8877-03 THE GREAT ANIM!
8878-03 THE GREAT ANIM!
8879-03 THE GREAT ANIM!
8880-03 THE GREAT ANIM!
8881-03 THE GREAT ANIM!
8882-03 THE GREAT ANIM!
8883-03 THE GREAT ANIM!
8884-03 THE GREAT ANIM!
8885-03 THE GREAT ANIM!
8886-03 THE GREAT ANIM!
8887-03 THE GREAT ANIM!
8888-03 THE GREAT ANIM!
8889-03 THE GREAT ANIM!
8890-03 THE GREAT ANIM!
8891-03 THE GREAT ANIM!
8892-03 THE GREAT ANIM!
8893-03 THE GREAT ANIM!
8894-03 THE GREAT ANIM!
8895-03 THE GREAT ANIM!
8896-03 THE GREAT ANIM!
8897-03 THE GREAT ANIM!
8898-03 THE GREAT ANIM!
8899-03 THE GREAT ANIM!
8900-03 THE GREAT ANIM!

- ☐ C096-10 BADBOYZ AGA SLIDES. 75 disks crammed with loads of pictures.
- ☐ C173 UCHNESS AGA 4 MEG. A 4 me chess game for AGA machines.
- ☐ C208 VIEWTEK 1.02. Displays any picture format.
- ☐ C209 WH3 RAINBOW. Put a pretty rainbow behind your wordend.
- ☐ C211-5 WERD SCIENCE AGA ART. disks of very impressive graphics.
- ☐ C216-9 MEG AGA IMAGES. Another

- ☐ C280 H01 AGA MEGADADD. The worlds first AGA demo.
- ☐ C287 AI200 TETRIS. Impressive AI, tetris game, very addictive.
- ☐ C288 AI200 VIRUS KILLERS. An essential collection of killers.
- ☐ C289 AI200 UTILITIES. A selection miscellaneous utilities.
- ☐ C293 PCX DATATYPE ETC. Put it in your clonesets drive, and you can view PC pic pictures.
- ☐ C304 WB3 HACKS. Over 50.
- ☐ C355 NEW WB3 SUPER KILLERS.
- ☐ C356 AI200 DEGRADERS. Every

- ☐ C375 Allows you to run older Amiga games. Kill AGA2 is great for 3rd party users as you don't have to have your Amiga to activate something that is not totally AGA compatible. S-KICK (DOS DRIVERS). Degrades your Amiga 1200 into Kickstart 1.3.
- ☐ C403 MORE W32 HACKS.
- ☐ C405 WINBLENDER. A 256 colour mouse/first generation.
- ☐ C418 NFA A1200 UTILS.
- ☐ C419-2 FET CHECKS. Stunning AGA

- ☐ C412 WHITE BRIDGE/AGA. Two-bit of scanning AGA art.
- ☐ C425 FREAKS BODYSHOP. More topless models.
- ☐ C428 ANDY'S WB3 UTILITY DSK. Possibly the best AGA utility dsk.
- ☐ C429 PLASMA CLOUDS 256.
- ☐ C432 ACTION REPLAY IV. Based on the hardware cartridge, you can freeze games, rip graphics, sound and more.
- ☐ C436 SPEED UTILITIES.
- ☐ C465-2 SPECTRUM EMULATOR. PS Spectrum games on your AGA.

- | | |
|--------|--|
| CS01 | MINDWARP. Here 2 AGA me-
mories with unusual picture effects. |
| CS01 | HEMME. Requires MMU. |
| CS56 | PANTA RHEI AGA. Another
AS100 megadrama. |
| CS53 | PC TASK 2.03. PC Emulator. |
| CS08 | OSCAR AGA 4 LEVELLEDS.
4 level preview of that stunning
AGA game "Oscar" as seen on
Amiga CD32. |
| 0001 | FRENCH AGA PROMO. Dis-
tasteful AGA promotional film
seen the best done in France or
anywhere else. |
| 0005-3 | FREAKS BODYSHOP 4. Just
released - the best selection of
pictures available. Stunning. |



order hotline. 793 490988 or 012073

MUSIC

- AS101-01 AMAZING TUNES 1. A rare classic music demo. Not 90s.
- AS102-02 "GAMMAY" 20 minutes of the best music we've heard, featuring vocals and it even has some "Thunder" coming in part of it.
- AS103-03 "A-Z OF CUB TUNES" 100% Cuban music.
- AS104-04 JENNIFER KAYE VINCE. CUBAN TRICIN.
- AS105-05 PARADE TRICIN.
- AS106-06 "ALCATRAZ" "MUSEUM X". Nice music, with some new tunes.
- AS107-07 BOW RAYE DEMO. SKETCH A TUNE.
- AS108-08 SOUNDING OF SCIENCE. A very popular title.
- AS109-09 2X UNBATED (51 minutes). Get ready for possibly the longest music track to the Amiga.
- AS110-10 INTERACTIV DANCE. TRASH. British new demo.
- AS111-11 SANCY JESTERMAN. New powerful tracks.
- AS112-12 JELLY "GLOBAL CHACO". HEADLINE "Black Throat".
- AS113-13 "FLORIAL" "PERFECT X". COMPLEX "TULIDRAM". Another one not to be missed.
- AS114-14 PREC OF THE NIGHT. ANDROMEDA "POINT BREAK".
- AS115-15 CONTINENTAL TECH DEMO. Very good new demo.
- AS116-16 HIS MASTER'S VOICE. A 2 disk collection of 50 tracks. Not A1000.
- AS117-17 "FALIGHT" "Normal Demos". Meaning new video type track, great music & great animation.

PRINTERS

- PC320 STAR PRINTER DRIVERS. A collection of printer drivers for the range of Star printers including 800 dpi.
- PC351 PANASONIC DRIVERS. Supports 24 pin & 24 pin printers.
- PC421 PROFESSIONAL DRIVERS. A collection of printer drivers for the more professional end in Laser.
- PC451 EPI. Like all our driver disks, easy to install.
- PC532 CITIZEN DRIVERS. Enhance the quality of your print with the canon on this disk.
- PC532 CANON DRIVERS. Essentially for the 80 series of Canon printers, including the new 8010s & the classic 8010s.
- PC608 HP SSC PRINTER DRIVER. At last a driver for the HP550.
- PC609 SIEGOWIA DRIVERS. For 9 pin & 24 pin printers.
- PC610 HP PRINTER DRIVERS. A comprehensive collection of HP drivers, including the 500 & 500x.
- PC613 DYNATECH DRIVERS. Over 70 miscellaneous printer drivers.

JURASSIC PARK THE COMPUTER GAME Available Amiga, Amiga 1200

Order code: [] Jurassic Park for ()

TOP TEN PD TITLES

We'll send you our top ten mystery PD titles for your Amiga.

A perfect Xmas present. Order code: [] Top 10 for (A)

100 GAMES

100 of the best PD games available. Most worth a try. Amiga.

Order ref: [] PAK100 Only £9.95

ANIMATION PACK

A collection of animation in 16 disks. But will work on any Amiga with 2mb or more.

Order code: [] ANIMPAK - IS ONLY £15

COPIERS

- PC404 MAXVERCO Copier. Ramona copy protection from hundreds of games.
- PC409 TITRACOPY Powerful disk copier. That can copy 1000's of disks while copying a disk.
- PC410 COPY PC'S 3.5. Ramona copy protection from over 4000 games.
- PC415 CDS. MATE. Simple, fast, fast disk copier.
- PC416 FLY. Ramona copy protection from over 4000 games.
- PC417 COPY II. Very powerful, fast disk copier.
- PC418 COPY III. Very powerful, fast disk copier.
- PC419 COPY IV. Very powerful, fast disk copier.
- PC420 COPY V. Very powerful, fast disk copier.
- PC421 COPY VI. Very powerful, fast disk copier.
- PC422 COPY VII. Very powerful, fast disk copier.
- PC423 COPY VIII. Very powerful, fast disk copier.
- PC424 COPY IX. Very powerful, fast disk copier.
- PC425 COPY X. Very powerful, fast disk copier.
- PC426 COPY XI. Very powerful, fast disk copier.
- PC427 COPY XII. Very powerful, fast disk copier.
- PC428 COPY XIII. Very powerful, fast disk copier.
- PC429 COPY XIV. Very powerful, fast disk copier.
- PC430 COPY XV. Very powerful, fast disk copier.
- PC431 COPY XVI. Very powerful, fast disk copier.
- PC432 COPY XVII. Very powerful, fast disk copier.
- PC433 COPY XVIII. Very powerful, fast disk copier.
- PC434 COPY XIX. Very powerful, fast disk copier.
- PC435 COPY XX. Very powerful, fast disk copier.
- PC436 COPY XXI. Very powerful, fast disk copier.
- PC437 COPY XXII. Very powerful, fast disk copier.
- PC438 COPY XXIII. Very powerful, fast disk copier.
- PC439 COPY XXIV. Very powerful, fast disk copier.
- PC440 COPY XXV. Very powerful, fast disk copier.
- PC441 COPY XXVI. Very powerful, fast disk copier.
- PC442 COPY XXVII. Very powerful, fast disk copier.
- PC443 COPY XXVIII. Very powerful, fast disk copier.
- PC444 COPY XXIX. Very powerful, fast disk copier.
- PC445 COPY XXX. Very powerful, fast disk copier.

DCOPY 3.1 BACKUP POWER

Very powerful new disk copier. Includes a number of copy modes, so you can copy almost anything.

An essential disk. Order code: [] C376

PLAY N' RAVE II

Powerful music module. Includes a number of copy modes, so you can copy almost anything.

Only £4.50 for the 2 disk set. Order code: [] PNR2-2

Page Stream Structured Clipart

Six disks of the highest quality clipart we've ever seen. Subjects include: Animals, stars, food, 3D houses, maps, music, electronics, holidays, office, transport, boats, sports, etc.

Order code: [] C360 6, 6 disks

BUDGET GAMES

- VL007 BATTLESHIP £2.00
- VL008 COLLOUS BRIDGE £4.00
- VL010 COLLOUS CROSS X £2.00
- VL018 CROSS MASTER 2500 £12.00
- VL019 CURSE OF INCHANTA £16.00
- VL020 CURSE OF INCHANTA £16.00
- VL021 CURSE OF INCHANTA £16.00
- VL022 CURSE OF INCHANTA £16.00
- VL023 CURSE OF INCHANTA £16.00
- VL024 CURSE OF INCHANTA £16.00
- VL025 CURSE OF INCHANTA £16.00
- VL026 CURSE OF INCHANTA £16.00
- VL027 CURSE OF INCHANTA £16.00
- VL028 CURSE OF INCHANTA £16.00
- VL029 CURSE OF INCHANTA £16.00
- VL030 CURSE OF INCHANTA £16.00
- VL031 CURSE OF INCHANTA £16.00
- VL032 CURSE OF INCHANTA £16.00
- VL033 CURSE OF INCHANTA £16.00
- VL034 CURSE OF INCHANTA £16.00
- VL035 CURSE OF INCHANTA £16.00
- VL036 CURSE OF INCHANTA £16.00
- VL037 CURSE OF INCHANTA £16.00
- VL038 CURSE OF INCHANTA £16.00
- VL039 CURSE OF INCHANTA £16.00
- VL040 CURSE OF INCHANTA £16.00
- VL041 CURSE OF INCHANTA £16.00
- VL042 CURSE OF INCHANTA £16.00
- VL043 CURSE OF INCHANTA £16.00
- VL044 CURSE OF INCHANTA £16.00
- VL045 CURSE OF INCHANTA £16.00
- VL046 CURSE OF INCHANTA £16.00
- VL047 CURSE OF INCHANTA £16.00
- VL048 CURSE OF INCHANTA £16.00
- VL049 CURSE OF INCHANTA £16.00
- VL050 CURSE OF INCHANTA £16.00
- VL051 CURSE OF INCHANTA £16.00
- VL052 CURSE OF INCHANTA £16.00
- VL053 CURSE OF INCHANTA £16.00
- VL054 CURSE OF INCHANTA £16.00
- VL055 CURSE OF INCHANTA £16.00
- VL056 CURSE OF INCHANTA £16.00
- VL057 CURSE OF INCHANTA £16.00
- VL058 CURSE OF INCHANTA £16.00
- VL059 CURSE OF INCHANTA £16.00
- VL060 CURSE OF INCHANTA £16.00
- VL061 CURSE OF INCHANTA £16.00
- VL062 CURSE OF INCHANTA £16.00
- VL063 CURSE OF INCHANTA £16.00
- VL064 CURSE OF INCHANTA £16.00
- VL065 CURSE OF INCHANTA £16.00
- VL066 CURSE OF INCHANTA £16.00
- VL067 CURSE OF INCHANTA £16.00
- VL068 CURSE OF INCHANTA £16.00
- VL069 CURSE OF INCHANTA £16.00
- VL070 CURSE OF INCHANTA £16.00
- VL071 CURSE OF INCHANTA £16.00
- VL072 CURSE OF INCHANTA £16.00
- VL073 CURSE OF INCHANTA £16.00
- VL074 CURSE OF INCHANTA £16.00
- VL075 CURSE OF INCHANTA £16.00
- VL076 CURSE OF INCHANTA £16.00
- VL077 CURSE OF INCHANTA £16.00
- VL078 CURSE OF INCHANTA £16.00
- VL079 CURSE OF INCHANTA £16.00
- VL080 CURSE OF INCHANTA £16.00
- VL081 CURSE OF INCHANTA £16.00
- VL082 CURSE OF INCHANTA £16.00
- VL083 CURSE OF INCHANTA £16.00
- VL084 CURSE OF INCHANTA £16.00
- VL085 CURSE OF INCHANTA £16.00
- VL086 CURSE OF INCHANTA £16.00
- VL087 CURSE OF INCHANTA £16.00
- VL088 CURSE OF INCHANTA £16.00
- VL089 CURSE OF INCHANTA £16.00
- VL090 CURSE OF INCHANTA £16.00
- VL091 CURSE OF INCHANTA £16.00
- VL092 CURSE OF INCHANTA £16.00
- VL093 CURSE OF INCHANTA £16.00
- VL094 CURSE OF INCHANTA £16.00
- VL095 CURSE OF INCHANTA £16.00
- VL096 CURSE OF INCHANTA £16.00
- VL097 CURSE OF INCHANTA £16.00
- VL098 CURSE OF INCHANTA £16.00
- VL099 CURSE OF INCHANTA £16.00
- VL100 CURSE OF INCHANTA £16.00

VISITORS WELCOME

WE'RE OPEN FOR VISITORS 6 DAYS A WEEK, 9.30AM - 5.30PM

CALL YOUR ORDER THROUGH AND COLLECT SAME DAY.

FREE MYSTERY GIFT WITH EVERY ORDER

10th day of December or while stock lasts

Amiga 1200 Insiders guide

If you're new to the Amiga then this great book will help you get up to speed. It's written for complete beginners, and takes you through the Amiga step by step.

Only £14.95 a 40p page.

LATEST

- PC507 AMIGA V2.1
- PC511 BOP N' PLOT
- PC512 ADORES POINT 3.1
- PC513 OUTRIM V2
- PC514 3-BLOCK DOW DRIVERS. Switch between 1.5 and 3.5 floppies.
- PC515 ASTRO 2 V.1
- PC516 SOLTARE
- PC517 ARES V2. System testing.
- PC518 OCTAMBER PRO SAMPLES
- PC519 LEGAL TALKS #99. Loads of useful info.
- PC520 DRAFT TITERS
- PC521 HP PRINTER DRIVERS
- PC522 CANON PRINTER DRIVERS
- PC523 LOKUPACK
- PC524 TITANIUM CREATS
- PC525 DAVIS' FAVORITES
- PC526 CANON PRINTER DRIVERS
- PC527 SIKOSHIA PRINTER DRIVERS
- PC528 LOKUPACK
- PC529 TITANIUM CREATS
- PC530 DAVIS' FAVORITES
- PC531 TITANIUM CREATS
- PC532 DAVIS' FAVORITES
- PC533 TITANIUM CREATS
- PC534 DAVIS' FAVORITES
- PC535 TITANIUM CREATS
- PC536 DAVIS' FAVORITES
- PC537 TITANIUM CREATS
- PC538 DAVIS' FAVORITES
- PC539 TITANIUM CREATS
- PC540 DAVIS' FAVORITES
- PC541 TITANIUM CREATS
- PC542 DAVIS' FAVORITES
- PC543 TITANIUM CREATS
- PC544 DAVIS' FAVORITES
- PC545 TITANIUM CREATS
- PC546 DAVIS' FAVORITES
- PC547 TITANIUM CREATS
- PC548 DAVIS' FAVORITES
- PC549 TITANIUM CREATS
- PC550 DAVIS' FAVORITES
- PC551 TITANIUM CREATS
- PC552 DAVIS' FAVORITES
- PC553 TITANIUM CREATS
- PC554 DAVIS' FAVORITES
- PC555 TITANIUM CREATS
- PC556 DAVIS' FAVORITES
- PC557 TITANIUM CREATS
- PC558 DAVIS' FAVORITES
- PC559 TITANIUM CREATS
- PC560 DAVIS' FAVORITES
- PC561 TITANIUM CREATS
- PC562 DAVIS' FAVORITES
- PC563 TITANIUM CREATS
- PC564 DAVIS' FAVORITES
- PC565 TITANIUM CREATS
- PC566 DAVIS' FAVORITES
- PC567 TITANIUM CREATS
- PC568 DAVIS' FAVORITES
- PC569 TITANIUM CREATS
- PC570 DAVIS' FAVORITES
- PC571 TITANIUM CREATS
- PC572 DAVIS' FAVORITES
- PC573 TITANIUM CREATS
- PC574 DAVIS' FAVORITES
- PC575 TITANIUM CREATS
- PC576 DAVIS' FAVORITES
- PC577 TITANIUM CREATS
- PC578 DAVIS' FAVORITES
- PC579 TITANIUM CREATS
- PC580 DAVIS' FAVORITES
- PC581 TITANIUM CREATS
- PC582 DAVIS' FAVORITES
- PC583 TITANIUM CREATS
- PC584 DAVIS' FAVORITES
- PC585 TITANIUM CREATS
- PC586 DAVIS' FAVORITES
- PC587 TITANIUM CREATS
- PC588 DAVIS' FAVORITES
- PC589 TITANIUM CREATS
- PC590 DAVIS' FAVORITES
- PC591 TITANIUM CREATS
- PC592 DAVIS' FAVORITES
- PC593 TITANIUM CREATS
- PC594 DAVIS' FAVORITES
- PC595 TITANIUM CREATS
- PC596 DAVIS' FAVORITES
- PC597 TITANIUM CREATS
- PC598 DAVIS' FAVORITES
- PC599 TITANIUM CREATS
- PC600 DAVIS' FAVORITES
- PC601 TITANIUM CREATS
- PC602 DAVIS' FAVORITES
- PC603 TITANIUM CREATS
- PC604 DAVIS' FAVORITES
- PC605 TITANIUM CREATS
- PC606 DAVIS' FAVORITES
- PC607 TITANIUM CREATS
- PC608 DAVIS' FAVORITES
- PC609 TITANIUM CREATS
- PC610 DAVIS' FAVORITES
- PC611 TITANIUM CREATS
- PC612 DAVIS' FAVORITES
- PC613 TITANIUM CREATS
- PC614 DAVIS' FAVORITES
- PC615 TITANIUM CREATS
- PC616 DAVIS' FAVORITES
- PC617 TITANIUM CREATS
- PC618 DAVIS' FAVORITES
- PC619 TITANIUM CREATS
- PC620 DAVIS' FAVORITES
- PC621 TITANIUM CREATS
- PC622 DAVIS' FAVORITES
- PC623 TITANIUM CREATS
- PC624 DAVIS' FAVORITES
- PC625 TITANIUM CREATS
- PC626 DAVIS' FAVORITES
- PC627 TITANIUM CREATS
- PC628 DAVIS' FAVORITES
- PC629 TITANIUM CREATS
- PC630 DAVIS' FAVORITES
- PC631 TITANIUM CREATS
- PC632 DAVIS' FAVORITES
- PC633 TITANIUM CREATS
- PC634 DAVIS' FAVORITES
- PC635 TITANIUM CREATS
- PC636 DAVIS' FAVORITES
- PC637 TITANIUM CREATS
- PC638 DAVIS' FAVORITES
- PC639 TITANIUM CREATS
- PC640 DAVIS' FAVORITES
- PC641 TITANIUM CREATS
- PC642 DAVIS' FAVORITES
- PC643 TITANIUM CREATS
- PC644 DAVIS' FAVORITES
- PC645 TITANIUM CREATS
- PC646 DAVIS' FAVORITES
- PC647 TITANIUM CREATS
- PC648 DAVIS' FAVORITES
- PC649 TITANIUM CREATS
- PC650 DAVIS' FAVORITES
- PC651 TITANIUM CREATS
- PC652 DAVIS' FAVORITES
- PC653 TITANIUM CREATS
- PC654 DAVIS' FAVORITES
- PC655 TITANIUM CREATS
- PC656 DAVIS' FAVORITES
- PC657 TITANIUM CREATS
- PC658 DAVIS' FAVORITES
- PC659 TITANIUM CREATS
- PC660 DAVIS' FAVORITES
- PC661 TITANIUM CREATS
- PC662 DAVIS' FAVORITES
- PC663 TITANIUM CREATS
- PC664 DAVIS' FAVORITES
- PC665 TITANIUM CREATS
- PC666 DAVIS' FAVORITES
- PC667 TITANIUM CREATS
- PC668 DAVIS' FAVORITES
- PC669 TITANIUM CREATS
- PC670 DAVIS' FAVORITES
- PC671 TITANIUM CREATS
- PC672 DAVIS' FAVORITES
- PC673 TITANIUM CREATS
- PC674 DAVIS' FAVORITES
- PC675 TITANIUM CREATS
- PC676 DAVIS' FAVORITES
- PC677 TITANIUM CREATS
- PC678 DAVIS' FAVORITES
- PC679 TITANIUM CREATS
- PC680 DAVIS' FAVORITES
- PC681 TITANIUM CREATS
- PC682 DAVIS' FAVORITES
- PC683 TITANIUM CREATS
- PC684 DAVIS' FAVORITES
- PC685 TITANIUM CREATS
- PC686 DAVIS' FAVORITES
- PC687 TITANIUM CREATS
- PC688 DAVIS' FAVORITES
- PC689 TITANIUM CREATS
- PC690 DAVIS' FAVORITES
- PC691 TITANIUM CREATS
- PC692 DAVIS' FAVORITES
- PC693 TITANIUM CREATS
- PC694 DAVIS' FAVORITES
- PC695 TITANIUM CREATS
- PC696 DAVIS' FAVORITES
- PC697 TITANIUM CREATS
- PC698 DAVIS' FAVORITES
- PC699 TITANIUM CREATS
- PC700 DAVIS' FAVORITES

FREE!

To celebrate our first year in business we're giving thousands of blank disks away throughout the coming months. With every order of 10 or more PD titles we will send you a box of 10 quality blank disks.

NOW THAT CAN'T BE...!

UTILITIES GALORE

OVER 400 UTILITIES

Includes Virus Killers, Mouse Makers, Test Tools, Viewers, Antivirus, Pattern Showers, Text Viewers, Browsers and hundreds more.

Just over 100 per side.

Order code: [] PAK500 Only £7.00

SAMPLE PACK

OVER 200 PD SAMPLES ON 5 DISKS

Includes: Sound FX, Musical Instruments, Samples from films etc.

Order code: [] SAMPACK Only £8.00

PC TASK

The full version, with free boot disk

Order code: [] PC517 Our price £29.00

THUNDER BIRDS

"THE GAME"

Features the original soundtrack, perfect character animation, and superb graphics.

An excellent Xmas present. Compatible with Thunderbolt package.

Order code: [] VL813 Only £5.00

LATEST

- PC630 DYNAMITE PRINTERS
- PC631 NEW AMOS GAMES
- PC632 GIG BUSTERS
- PC633 ULTIMATE CHEATS
- PC634 A.C.E.S. DATABASE V2
- PC635 GRAMMAR CHECKER. Works with any wordprocessor.
- PC636 CLIMB X
- PC637 ACTION REPLAY for AMO
- PC638 BETTER BENCH
- PC639 GIP ALDRIDGE'S
- PC640 SLAM BALL
- PC641 KIDS CODE
- PC642 RACING HORMONS. Comical simulation.
- PC643 AMO FRUIT MACHINE II
- PC644 AS MULTIVISION
- PC645 CLEDO
- PC646 FILE-X
- PC647 THE LEAGUE
- PC648 ASTROBOTS V2
- PC649 DIZZY DIAMONDS. New Texas.
- PC650 CHICKEN CHECKERS
- PC651 ALIEN HUNT
- PC652 SPECTRA POINT 3.2
- PC653 ARAB V2.1 (HILLI) Very
- PC654 KING JAMES BIBLE. The Bible?
- PC655 BPO ADVENTURE CREATOR
- PC656 PRINCE VALD
- PC657 SCRAMBLER. Fast paced
- PC658 AMIGA BEGINNERS GUIDE. A perfect companion for the new Amiga.
- PC659 CASH FRUIT
- PC660 DAVIS' FAVORITES
- PC661 ESCAPE FROM A CAVE
- PC662 AMPHIB
- PC663 CASTLE NOMES. Great narrative game, and graphics.
- PC664 AMO PRO LIPUPITS V2
- PC665 EXTENSIVE. The most up to date collection of cities in England available.
- PC666 QUALITY TIME. Moral story.
- PC667 THE STARS OF STANLEY ST.
- PC668 STAR PRINTER DRIVERS
- PC669 PANASONIC PRINTER DRIVERS
- PC670 CANON A CITIZEN DRIVERS
- PC671 POLYED 3D object editor
- PC672 SHOOTING. New requires 2mb of chip memory. Causes stunning
- PC673 THE GATHERING GFX.
- PC674 BOMBER
- PC675 BENCH II. New
- PC676 REPLACEMENT Workbooks disk
- PC677 UNDER COVER BIBLE I
- PC678 UNDER COVER BIBLE II
- PC679 UNDER COVER BIBLE III
- PC680 UNDER COVER BIBLE IV
- PC681 UNDER COVER BIBLE V
- PC682 UNDER COVER BIBLE VI
- PC683 UNDER COVER BIBLE VII
- PC684 UNDER COVER BIBLE VIII
- PC685 UNDER COVER BIBLE IX
- PC686 UNDER COVER BIBLE X
- PC687 UNDER COVER BIBLE XI
- PC688 UNDER COVER BIBLE XII
- PC689 UNDER COVER BIBLE XIII
- PC690 UNDER COVER BIBLE XIV
- PC691 UNDER COVER BIBLE XV
- PC692 UNDER COVER BIBLE XVI
- PC693 UNDER COVER BIBLE XVII
- PC694 UNDER COVER BIBLE XVIII
- PC695 UNDER COVER BIBLE XIX
- PC696 UNDER COVER BIBLE XX
- PC697 UNDER COVER BIBLE XXI
- PC698 UNDER COVER BIBLE XXII
- PC699 UNDER COVER BIBLE XXIII
- PC700 UNDER COVER BIBLE XXIV

LATEST

- PC701 THE DARK MAG BIBLE I
- PC702 THE DARK MAG BIBLE II
- PC703 THE DARK MAG BIBLE III
- PC704 THE DARK MAG BIBLE IV
- PC705 THE DARK MAG BIBLE V
- PC706 THE DARK MAG BIBLE VI
- PC707 THE DARK MAG BIBLE VII
- PC708 THE DARK MAG BIBLE VIII
- PC709 THE DARK MAG BIBLE IX
- PC710 THE DARK MAG BIBLE X
- PC711 THE DARK MAG BIBLE XI
- PC712 THE DARK MAG BIBLE XII
- PC713 THE DARK MAG BIBLE XIII
- PC714 THE DARK MAG BIBLE XIV
- PC715 THE DARK MAG BIBLE XV
- PC716 THE DARK MAG BIBLE XVI
- PC717 THE DARK MAG BIBLE XVII
- PC718 THE DARK MAG BIBLE XVIII
- PC719 THE DARK MAG BIBLE XIX
- PC720 THE DARK MAG BIBLE XX
- PC721 THE DARK MAG BIBLE XXI
- PC722 THE DARK MAG BIBLE XXII
- PC723 THE DARK MAG BIBLE XXIII
- PC724 THE DARK MAG BIBLE XXIV
- PC725 THE DARK MAG BIBLE XXV
- PC726 THE DARK MAG BIBLE XXVI
- PC727 THE DARK MAG BIBLE XXVII
- PC728 THE DARK MAG BIBLE XXVIII
- PC729 THE DARK MAG BIBLE XXIX
- PC730 THE DARK MAG BIBLE XXX
- PC731 THE DARK MAG BIBLE XXXI
- PC732 THE DARK MAG BIBLE XXXII
- PC733 THE DARK MAG BIBLE XXXIII
- PC734 THE DARK MAG BIBLE XXXIV
- PC735 THE DARK MAG BIBLE XXXV
- PC736 THE DARK MAG BIBLE XXXVI
- PC737 THE DARK MAG BIBLE XXXVII
- PC738 THE DARK MAG BIBLE XXXVIII
- PC739 THE DARK MAG BIBLE XXXIX
- PC740 THE DARK MAG BIBLE XXXX
- PC741 THE DARK MAG BIBLE XXXXI
- PC742 THE DARK MAG BIBLE XXXXII
- PC743 THE DARK MAG BIBLE XXXXIII
- PC744 THE DARK MAG BIBLE XXXXIV
- PC745 THE DARK MAG BIBLE XXXXV
- PC746 THE DARK MAG BIBLE XXXXVI
- PC747 THE DARK MAG BIBLE XXXXVII
- PC748 THE DARK MAG BIBLE XXXXVIII
- PC749 THE DARK MAG BIBLE XXXXIX
- PC750 THE DARK MAG BIBLE XXXXX
- PC751 THE DARK MAG BIBLE XXXXXI
- PC752 THE DARK MAG BIBLE XXXXXII
- PC753 THE DARK MAG BIBLE XXXXXIII
- PC754 THE DARK MAG BIBLE XXXXXIV
- PC755 THE DARK MAG BIBLE XXXXXV
- PC756 THE DARK MAG BIBLE XXXXXVI
- PC757 THE DARK MAG BIBLE XXXXXVII
- PC758 THE DARK MAG BIBLE XXXXXVIII
- PC759 THE DARK MAG BIBLE XXXXXIX
- PC760 THE DARK MAG BIBLE XXXXXX
- PC761 THE DARK MAG BIBLE XXXXXI
- PC762 THE DARK MAG BIBLE XXXXXII
- PC763 THE DARK MAG BIBLE XXXXXIII
- PC764 THE DARK MAG BIBLE XXXXXIV
- PC765 THE DARK MAG BIBLE XXXXXV
- PC766 THE DARK MAG BIBLE XXXXXVI
- PC767 THE DARK MAG BIBLE XXXXXVII
- PC768 THE DARK MAG BIBLE XXXXXVIII
- PC769 THE DARK MAG BIBLE XXXXXIX
- PC770 THE DARK MAG BIBLE XXXXXX
- PC771 THE DARK MAG BIBLE XXXXXI
- PC772 THE DARK MAG BIBLE XXXXXII
- PC773 THE DARK MAG BIBLE XXXXXIII
- PC774 THE DARK MAG BIBLE XXXXXIV
- PC775 THE DARK MAG BIBLE XXXXXV
- PC776 THE DARK MAG BIBLE XXXXXVI
- PC777 THE DARK MAG BIBLE XXXXXVII
- PC778 THE DARK MAG BIBLE XXXXXVIII
- PC779 THE DARK MAG BIBLE XXXXXIX
- PC780 THE DARK MAG BIBLE XXXXXX
- PC781 THE DARK MAG BIBLE XXXXXI
- PC782 THE DARK MAG BIBLE XXXXXII
-

Reviewers may come and go but no matter what computer there is and always will be a public domain that churns out titles at an amazing rate to satisfy the constant appetite of software-hungry punters.

To all the PD libraries who send this wealth of material in, please keep it rolling through our letterbox and if it's any good, we'll do our damnest to review it.

Amiga 3 Holmes Bros

Amiga 3 is a tasty magazine disk containing both games and utilities. It's been pulled together by the Holmes brothers (PD's answer to the Mario lads) and offers great value for money.

When booted in, the user is presented with a menu of the different programs on offer – games on the left, utilities and full instructions (what a nice change) on the right. Click on the desired title and you're off...

Alien Bash

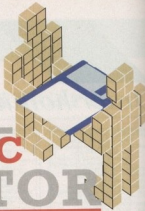
The film Aliens has influenced many games from Xenomorph to Alien Breed. Its mixture of suspense and action has obviously caught software developers' imaginations.

Enter Alien Bash, the public domain's answer to the epic Jim Cameron flick. Viewed from above, the player has to guide his gun-wielding man round 50 scrolling levels of mayhem, rescuing prisoners captured by the aliens of the title.

These extra-terrestrials are no walk over – it took me a while to get off level one due to the constant bombardment of bouncing masses of brains inside bubbles

Adam Phillips takes over from that guru of the public domain, Phil Morse, hoping to fill his demi god-like shoes with this first crop of reviews

PUBLIC SECTOR



(that's what they look like anyway). I regularly found myself being pushed into a corner and swamped to death by these creatures.

Having said this though, once you've killed one of them, you are rewarded by a huge splattering of blood on the floor. Quite soon the game screen begins to take on the look of a prison movie.

To aid and abet you in the struggle for human supremacy are a number of meaty power-ups including more speed, shields, triple firer, missile launcher and a smart

bomb that clears the screen you're on.

The prisoners that need saving are found surrounded by a shield, so frantic bashing on the Fire button ensues while all around the aliens close in. Once destroyed, simply touch the hostage and move on to the next one.

Although being the weakest game on the disk, it's still good fun. It can be extremely frustrating at times when you simply can't run quick enough to get

away from the xenomorphs and end up dying horribly.

A500 owners will have to put up with the occasional juddery scrolling but A1200 owners need not worry.

As it stands, Alien Bash is quite a jolly game and does have that "one more go" feel – a good reason to take a look at Amiga 3.

Bomb Jacky

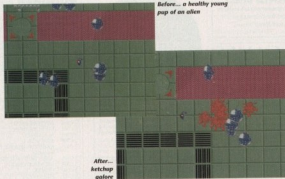
I remember in the old days going down to the software shop in Macclesfield, buying Bomb Jack on my Spectrum and playing the little bopper to death.

As you've guessed even with the naming use of a Y on the end of the name, this is a souped-up, multi-screened, scrolling, power-up totting version of the arcade classic.

The scenario hasn't changed – jump and run your way through each level collecting all the bombs before their fuses run out and blow you to kingdom come.

Enemies are in ample supply and come in various guises ranging from snails and melons to mutated pacmen. Some simply follow a set path while others constantly chase and annoy the hell out of you.

The graphics are fun if a little bit



Motorola Invaders 2

Pathfinder PD

We've already had variants of Alien Breed and Bomb Jack this month and now with Motorola Invaders 2 for the A1200 only, we step back in time to the very creation of the arcade game itself – Space Invaders.

That game happened to revolutionise the entertainment and leisure industry as we know it. Mi 2 is a title which dangerously veers towards that vague idea of a cult classic taking elements from Galaxians and Space Invaders and using them in a stylistic and bold way.

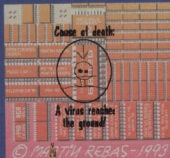
The first thing I noticed when I booted up is one of the longest and dearest samples I've heard from an Amiga. If you're a Metallica fan, then the delight is doubled as the thrash group hammer out the chords.

The actual gameplay is a case of shooting up the viruses living inside your computer. They come in various formations from massive crowds of the blighters to the organised ranks as seen in Space Invaders.

When shot, the diseased bytes don't blow up, they drop to the ground like dead flies and if they hit you on the way down, a life is lost. This can make the program quite difficult to play and

requires careful shooting and some tactical manoeuvring.

Motorola 2 has eight levels and four "differing playing styles" and is worth a look if only to see something as old as the hills done with style, instant appeal and panache.



The past masters of a failed attempt



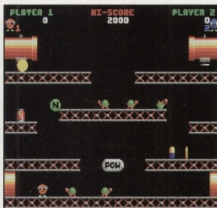
Collect the bombs with your T1000 man before the time runs out

Calling all PD libraries...

...and individuals with anything remotely worth my while having a peek at. If you want something released as PD, or you're a library with stacks of hot new stuff that you haven't seen reviewed in these pages yet, why not drop me a line with a copy, full documentation and everything clearly labelled. I promise I'll at least look at your work.

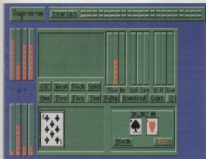
From music to education, business to utilities – anything you felt deserved your showing onto a floppy disk, let me at it and I'll do the rest. Address?

Adam Phillips, PD submissions, Amiga Computing
Europa House, Adlington Park,
Macclesfield SK10 4NP



If you go down to the sewer today...

Lay your money down and clean out the book



Graphically, the game looks a little basic but there are nice touches with the animation – if you leave your character too long, he yawns and goes to sleep. The turtles, when changing colour, put on the new one as if it were a jacket. These and others add a real feel of professionalism to the title.

A1200 owners will have to look out for screen corruption if they have a hard drive because it appears to interfere with the game coding in some way. The program is still playable though but it's a bit of a shame this can't be rectified in some way.

Doody is a cracking game which has

that Bubble Bobble/Rainbow Islands feel to it, making this title the most absorbing of all those on the disk.

Atoms

I've seen this kind of game on a couple of occasions and it has been said that this version is the slickest of the lot in terms of presentation.

The basic concept is this – each player (two to four) places a coloured atom each turn on the board which is basically a large grid. It's possible to place atoms in

defined in places but on the whole, they hang together well. Power ups are many and varied with speedup boots and keys to unlock the entrance just being a small offer of what's on offer.

The all-important gameplay is very addictive and falls safely on the side of challenging and not tedious.

this case, the computer).

For the gambling fanatics with no money among us, bets can be laid through the stakes columns. It's a touch unwieldy but practice makes perfect. The game is presented clearly and is easy to use if you like the card game, you'll love the computer version.

Vingt-et-Un

If you hadn't already guessed or you don't know French, Vingt-et-Un is a computer version of the card game pontoon. The objective is to get either as close as possible to or equal 21 points without going over and beat the other players effort (in

Doody

Make no mistake – Doody is a cutesy game; a saccharin-soaked, cuddly for the kiddies' kinda title set in a coke-and-pill-ridden sewer system.

The action centres around a single screen made up of platforms, the story being that you (and an optional second player) have fallen down into the system and must work your way up through 32 levels to escape, destroying all who stand in the way.

Your orange blob of a character starts at the bottom of the screen while the enemy pour out of the pipes at the top. These are usually turtles with gnom shells to begin with and in later levels, the program almost sets new standards in environmental simulators with the introduction of penguins.

By moving Doody underneath the platform that the turtle is walking along, it is possible to head-butt the floor and knock our amphibian friend off his feet. Next, it's a mad dash to get up onto the platform to kick him off into oblivion.

If left too long, the turtle will get up, change its colour and move even faster. To make life easier, there is a POW block at the bottom of the screen – hit it and all the creatures fall off their feet automatically and over, it's not possible to keep doing it over and over again; the player can only use it a certain amount of times.

Mr Men Olympics 1993

Virus Free Software

Everyone knows the Mr Men – Mr Tickle, Mr Happy, Mr Messy and Miss Single Parent. They played a part in most childhoods after the 60s, and Unity, the people behind this release, have obviously decided that they didn't want to squander such great material.

So they've produced a children's game that plays and looks like a commercial piece of software.

The actual game centres round five different sporting events – the 100 metres; weight lifting, the hammer, pole vault and javelin throwing. Like all sports

simulations, the majority of these events are performed by waggling the joystick frantically to gain speed or strength and then hitting the Fire button at the right moment to succeed.

The javelin, for instance, involves speeding Mr Tickle up via the joystick and when he reaches the throw line, hitting the Fire button.

It doesn't end there – the javelin in question is actually Mr Skinny who flies through the air and the player needs to help him further by flapping the characters arms with the controller.

At the levels with the exception of the hammer throwing section work well on a simplistic level and are ideal for young children.

More events would have been better but the presentation, ease of use and every character looking like it's been lifted off the page of the Roger Hargreaves classics, makes this title into something a little special.

If you want your young six-year-old kids to play something a little different from the usual beat-'em-up games then slip this into the disk drive – they're sure to have a good time.



Mr Tickle is running up the track as Mr Skinny prepares himself to be launched into orbit

Rags to Riches

Pathfinder PD

If Monopoly is your game then Rags to Riches is the ideal electronic companion. It's an original board game designed and produced on computer so you never have to worry about losing any of the pieces.

The basic idea is to make as many hotels as possible and amass large amounts of wedge. This is not a simply as it sounds - there are only a certain amount available to be built in certain locations so the players (two to four) have to rush to outdo each other.

On the path to successful building, plans, planning approval, electricity, plumbing brickwork and other factors have to be bought.

There are plenty of variables such as windfalls and gambling and the whole package works well, but unfortunately I couldn't help feeling that everything was just too random and not enough skill based. Having said that though, if you're a board game nut then this could be just up your Park Lane.



Move around that board and amass your riches

the squares together, making them unstable.

Once a certain number of atoms are grouped together, they explode across the board, changing everything that gets in the way to their colour.

There are various rules affecting the gameplay such as chain reactions caused by other players' atoms reacting off yours. This can lead to situations where you think the game is in the bag but the opposition's single atom is in an ideal spot to completely wipe out all your colours.

A one-on-one against the computer option would have given the game more levity but as it stands, it's a good laugh especially with four people involved.

Boot Intro Construction Set

When the magazine firsts boots in, the user is presented with an intro screen containing information inside coloured strips.

BICS is the program that does this and now the same can be done to a disk of your choice. By selecting the construction set, the user is presented with a screen where it is possible to enter text and the



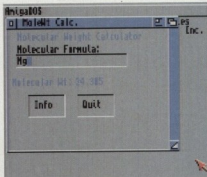
colour of the strips themselves.

From there, install on a disk and when used next, it will flash up the desired text. This useful for sending messages and instructions to friends on disk or simply to make the front end of a game look more attractive to the eye.

The only downer is the lack of hard disk installation but as the Boot Intro Construction Set stands, it's an effective piece of software.

Molecular Weight Calculator

A brief review here - MWC is a program that accepts a chemical formula and returns the molecular weight. It works and if you're a scientist or anybody else with a desperate need for weighing molecules then many a merry evening



A molecular weight calculator. What does it stand for? Answers on a postcard and remember it's just for fun...

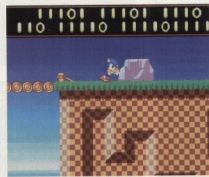
can be spent with this smooth operator. Overall if the Holmes Bros can keep this standard up over the next few months then Amiga disk magazine is well worthy of investment on a regular basis.

With its professionalism, fun and real value for money, Amiga 3 is a must buy.

Sonic

Virus Free PD

Exclusive! Sonic the Hedgehog is making his debut in the Amiga PD. Well, so it's not true, the reality of the situation is that



The fully playable, post-apocalyptic mega game... not

this is a non-playable demo showing Sonic strutting his stuff on the Commodore.

The results, while not up to the Mega Drive standards, show the game could most likely be well implemented on your favourite computer but let's face it, unless someone, somewhere out there in the world fancies a huge lawsuit and case with Sega on their doorstep then ain't never gonna happen.

The disk is worth getting for novelty value and the speed of Sonic's movements alone, but it'll only keep your interest for a couple of minutes.

The Beginning of the Earth

Pathfinder PD

Designed as a children's educational program, this title is a slide show tracing the origins of the big bang and the subsequent forming and creation of the planet and its wildlife.

There are about 20 slides in all containing information and reasonable looking pictures of what happened all those millions of years ago.

By the end of the show, which doesn't last for very long, I wanted to see more which is a good sign but I hope the publishers intend to release more disks to bundle package which go into more depth.

If you have children or indeed if you're a kid and are interested in the planet and dinosaurs then take a look at this.

Contact addresses

Pathfinder PD

41 Marion Street, Bingley BD16 4NQ
Tel: 0274 565205

Virus Free PD

31 Faringdon Road, Swindon SN1 5AR
Tel: 0793 512321

Holmes Brothers

23 Rochester Avenue, Wednesfield
Wolverhampton WV11 3AU
Tel: 0902 733418

GROUND ZERO

SOFTWARE

NEW TITLES

PUBLIC DOMAIN
SOFTWARE
ONLY

EDUCATION

ORDERING PD DISKS

PRICE PER PD DISK	£0.85
CATALOGUE DISK VOL.1 ...	£0.50
CATALOGUE DISK VOL.2 ...	£0.50
POSTAGE & PACKING	£0.75

Overseas orders. Use the above prices, then add 25% of that total, to cover the extra postage costs. Thank you.

PLEASE MAKE ALLCHEQUES/POSTAL
ORDERS IN STERLING PAYABLE TO
GROUND ZERO SOFTWARE

SEND ORDERS TO :

GROUND ZERO SOFTWARE
4 CHANDOS RD
REDLAND
BRISTOL BS6 6PE
ENGLAND

ALL TITLES ARE COMPATIBLE WITH
ALL AMIGA'S UNLESS STATED
OTHERWISE

IMES

USEFUL UTILITIES

DEM

GRAPHICS UTILITIES

G224 OBLIVION - Super fast defender clone.

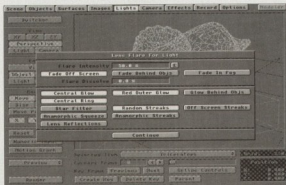
FINAL FRONTIER

ISSUE # 5

We also stock the Final Frontier
disk magazine at
only \$6.00 inc P&P.Four action

packed disks full of news, reviews. Everything on Star Trek and The Next Generation. Interviews with the stars and convention news. Loads of features. Plus exclusive artwork from Tobias Richter.

THIS IS NOT PUBLIC DOMAIN. THIS DISC
MAGAZINE COMES WITH IT'S OWN
PERSONALISED LABELS. AND AUTHORS
GET PAID ROYALTIES FOR THEIR WORK



Independent lens flare control for every light on the scene

If you're relatively new to the Amiga, the importance of the Video Toaster and its accompanying suite of software can't be overstated. In short, the Video Toaster is the only thing that's kept the Amiga alive in the US for years.

Even more ironic than the prospect of a third party peripheral keeping a computer afloat is the fact that the software bundled with the Toaster is the only thing that's kept the card itself from a pedal bin already full of long forgotten third-party peripherals.

If you managed to follow any of the above the upshot is that without Lightwave the Amiga would probably have been crushed underfoot by the relentless onslaught of IBM in the American market long ago.

NOT ALONE

Although Lightwave is not alone when it comes to Toaster software, it's widely regarded as the most important element of the entire hardware/software combination.

Due to the Toaster's strictly composite-only output, the card itself has been rather superseded over recent years by dedicated broadcast systems when it comes to TV and satellite – although it is still the workhorse behind countless US cable stations providing character generation, digital video effects and of course Lightwave images and animation.

Although the Toaster itself is no longer considered sufficient for broadcast applications Lightwave still provides rendering quality on a par with anything on the market.

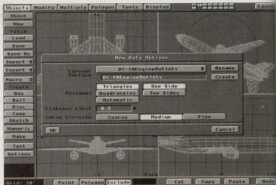
A perfect illustration of this can be seen gazing our screens right now in the form of Babylon 5 and Sea Quest DSV – both of which make extensive use of Lightwave's incredible modelling power.

To put things into perspective Lightwave has proved so popular with professional broadcasters in the States that

complete toaster systems have been bought purely as a means of accessing the potential of the package – as a result the Toaster itself probably qualifies as the world's most expensive dongle.

Although this may sound unbelievable it's worth bearing in mind the cost of alternative systems like the Silicon Graphics Indigo workstations. Although

**Paul Austin
reveals another
exclusive as
Lightwave finally
brings arguably
the Amiga's
greatest ever ray
tracer to Europe**



Selecting individual elements within a huge model couldn't be simpler

truly impressive, the machines can cost up to £35,000 plus another £40,000 for the associated ray tracing and animation software – add an optional £2,000 a year for tech support and upgrades and you'll see why Lightwave remains so popular.

With the extra appeal of the software over its accompanying hardware, the question has to be: Why not buy a stand-alone version of Lightwave and leave the Toaster for those who specifically want its additional multimedia abilities.

Unfortunately as you've probably guessed the connection between the Toaster and Lightwave isn't simply a matter of loyalty. In fact Lightwave minus the Toaster equals no Lightwave whatsoever...

As a consequence that's why the ultimate in Amiga ray tracing has never appeared in Europe. Thanks to the enforced symbiosis it has remained strictly on the wrong side of the pond.

Due to the basic design of Lightwave it insists on the presence of a Toaster – which is not only expensive but also impossible to use in a PAL environment up until recently. Why the authors of

Lightwave never released the package to other boards is probably a matter of contractual obligation rather than indifference but whatever the reason the end result remains the same.

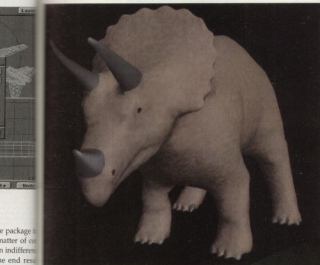
What Europe needed was some way of duping Lightwave into believing a Toaster was on-board, when in fact it wasn't. Enter LightRave, the dongle that does the impossible and brings Lightwave to its PAL Amiga without burning up extra cash on the somewhat mediocre and expensive talents of the PAL Toaster.

GRATIFYING

Considering the asking price associated with the LightRave and Lightwave combination it's gratifying to know there's more to it than just plugging the dongle into the serial port.

Along with the aforementioned plastic accessory – which for some bizarre reason smells of soap – you also receive a floppy which contains the LightRave control software, an element which must be resident before you can enter the wonderful world of Lightwave. In addition to the dongle

Trippin' the Light



Dinosaurs at its best - simply add bones and make him move

the package is
rather of con
in indifference
the end result

some way
ing a Toaster
ect it was
that does
tivate to
ing up ext
edior and
Toaster.

NG
ce associa
wave comb
there's mo
ngle into t

ioned plas
izarre reaso
ive a floppy
ontrol so
be reside
derful work
the doge

and its accompanying software the only other essential is Workbench 2.04 or above and at least 512k or chip and fast RAM respectively - although at least 3Mb or more is required to achieve any real functionality.

Thanks to the control software the output of the program isn't just destined for the hard disk - in fact thanks to LightRave, Lightwave is no longer limited to the composite only output offered by the Toaster as the program's output is now automatically redirected to the board or Amiga display of your choice.

In fact thanks to the intervention of the control software Lightwave will now render direct to the IV24, Retina, Opalvision, DCTV, Firecracker and EGS Spectrum in addition to standard and AGA Amiga displays.

Depending on your particular set-up you can configure Lightwave's preview output medium of your choice, although for optimum speed it's also possible to forego the preview entirely in order to save a little more rendering time.

If the assorted graphic cards and Amiga modes are not enough LightRave also offers the option to render direct to GVP's ImageFX image processing software. This has two advantages. Firstly you can take advantage of any additional

display devices supported either now or in the future by the software.

In addition the option also allows post-processing of the 3D images even before the file is saved to disk. On the down-side, running Lightwave and ImageFX simultaneously will require a huge amount of free RAM which will no doubt negate its use for the vast majority.

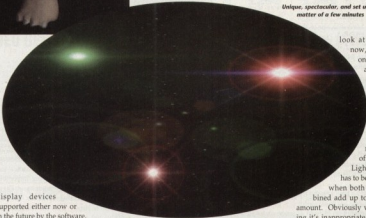
In addition to simply slapping graphics onto the chosen device, the LightRave software also provides time-out control for the static image preview. Better still it's even possible to play back animation rendered directly from LightRave - a feature only previously available through the Toaster 4000 hardware.

At the moment anim5 is the only anim format available but others are promised for the future. The animation itself can



Total camera control, adaptive sampling, field rendering, motion blur, depth of field and much more from the friendly camera requester

Unique, spectacular, and set up in a matter of a few minutes



look at the package. For now, however, we'll go on a brief guided tour and spotlight what makes the package so special.

Aside from the impressive features list which we'll look at in a moment one of the most notable aspects of the Lightwave and LightRave combination has to be the price tag which when both elements are combined add up to a rather terrifying amount. Obviously without proper testing it's inappropriate to talk about value for money - you'll have to wait for next month for that. However the price tag does at least point to the market the new duet will be targeting.

SERIOUS

In fact, even to install Lighters and more importantly Lightwave you will either need to be very serious about your modelling and animation or have an almost unbelievable excess of disposable cash.

According to the LightRave manual the software and dongle require the complete installation of the entire Toaster software collection. OK, not an unreasonable request - until you realise that the collection comes on 45 disks which in total require 110Mb of storage space.

If you're unfortunate enough to be installing on an A4000 all 46 disks are required where as only a measly 29 are essential for non-AGA machines.

Due to the rather annoying and archaic design of the Toaster installer you're only given the option to install all or nothing, a factor which is made even more infuriating when you realise that LightRave,

appear as either Ham or Ham8 display or alternatively as a DCTV 3 or 4 bitplane image/anim.

With such a big build up, it's only fair to offer at least a whistle stop tour of what all the fuss is about. However as you can probably guess, Lightwave is simply too big a package to cover in just a couple of pages.

In addition AC - unlike certain magazines - has a tradition of not only actual having a product before reviewing it, but also thoroughly testing it prior to offering a so-called exclusive.

With this in mind coverage of Lightwave will be carried onto next month in the form of a full and in-depth

fantastic

Lightwave and Modeler total to less than 1Mb. In fact even if all the support files, objects and essential fonts are copied over you still only need about 7Mb of hard disk space.

Over the next few weeks I'll try to unearth a more cost-effective method of installation by perhaps aborting installation after the essential Lightwave elements have been added.

Unfortunately even if it is possible to abort the install prematurely the installer interrogates your system before starting-up and will refuse to install on anything less than an 80Mb hard disk.

Even if the correct size of disk is located you will be instructed to delete a predetermined number of files to make up the shortfall. As a result at the moment the only option is to back-up your entire hard disk, install the software, delete the necessary Toaster software and re-install your system.

In addition to the potential problem of acquiring the extra hard disk space the authors and creators of the LightWave dongle have also officially stated – again via the manual – that tech support and imminent free upgrades to the LightWave driver software will only be available to those who can prove ownership of a Toaster.

UPGRADES

In order to do this the registration card has an area marked Video Toaster serial number. If you do not supply the number you also won't receive information on upgrades to LightWave dongle – which may occur due to upgrades to Lightwave or the Toaster itself.

Although this isn't the kind of news the European buying public are looking for it's probably a vain attempt on the part of LightWave's developers to appease the great god NewTek – who for obvious reasons won't be too pleased at the prospect of losing their prize milk-cow to an interloper.

In fact, so keen are Warm and Fuzzy Logic to avoid offence that one of the primary selling points of LightWave is to offer

additional freedom to existing Toaster users.

This indeed is one of the benefits of the LightWave system, however telling a customer that he or she can't have tech support and upgrades for something you've sold them simply because they don't own the very thing is the ultimate in hypocrisy.

And don't think the fault lies with Warm and Fuzzy Logic – it doesn't. The cause of all this confusion falls squarely at the feet of NewTek who through outright greed have forced would-be LightWave users to such bizarre lengths.

Given the fact that NewTek must have made an ab-solute mint on the Toaster in recent years, why not release Lightwave – under licence – for use with other boards? That way they still receive a handsome royalty and we the underprivileged Europeans would finally get the software we want – no strings attached.

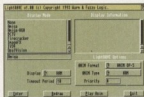
Although the word Lightwave gives the impression of a single entity the package is in fact split into two distinct parts, namely Layout and Modeler – Uncle Sam's spelling, not ours.

On entering the software you arrive at the layout screen complete with its mandatory camera and Caligari style Cartesian plane, providing the essential feeling of perspective.

Again Caligari-esque double button mouse controls allow the viewer to zoom in and orientate the display, however this basic perspective view is only the beginning of the program's truly excellent interface.

As you can no doubt see from the screenshots, buttons are also available for the usual XY and Z views, but better still you can also view the scene from the camera's point of view or that of any lights which may have been added to the scene.

The beauty of the last two options is only really revealed when the chosen view is combined with the programs edit



Simple but effective, the LightWave interface in all its glory



A simple frame from a stunning demo animation

options. Again you'll see that the various View buttons are repeated in the edit section with the addition of bones and objects.

As a result you can for example select the view point of a light and also select the same light as the element to be edited. As a consequence, when you now orientate your new view the object mimics the changes in real-time allowing incredibly easy and accurate adjustment and alignment of the various elements.

If you're happy with the changes you simply click on create key and the alterations are recorded. Each element has its own set of keys which during animation are tweened automatically by the software using splines.

And joy of joys, each object also has its own motion graph to control speed along its individual path. In a rather dramatic and pleasant variation from the norm, characterisation of the various elements within a scene are handled during scene development, and as a result there's no need to jump between modeller and layout to adjust texture maps, backdrops and so on.

Moving on to the layout screen, where you're confronted with an image/Real Classic-style tri or quad view depending on your particular preference. In a slight break from tradition, the various edit controls on the left of the screen evolve according to choice of mode selected at the top.

As a result there're no tedious treks through pull-down menus to find the appropriate feature and perhaps more importantly scene refresh is kept to an absolute minimum.

When it comes to model design and handling, the format is very similar to

Imagine/Real Classic with the only major exception being the ability to use multiple layers each of which can hold different objects.

These layers can then be freely exchanged to update the screen with a new object and more importantly layers can interact to perform various merge and Boolean operations with one object being used as a cutting tool on another. Although not essential, the optional quad view has a particularly nice touch in the form of a fourth perspective view.

Unlike Imagine you're not forced to use sliders to orientate the fourth window – in fact you can grab the object and manipulate the model in real-time, and if that's not enough you can even choose to have the object constantly swept from left to right to enhance the 3D effect.

As for looks and edit options, the available selection is nothing short of breathtaking with seemingly everything that Imagine 3.0 promise and seemingly all that Real3D v2 provides at present – with the only possible exceptions being collision detection and gravitational effects.

Although a rather sweeping statement considering my limited exposure to the package it only proves the infectious enthusiasm that Lightwave generates.

MASSIVE

It's by no means an accident that Lightwave has become massive right across the US and beyond. Although several years of ray tracing experience do help, I've hardly ever needed to resort to the manual for advice – even when exploring features that are totally new to me.

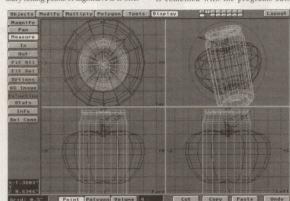
During Amiga reviews, the phrase intuitive is used with gay abandon – sometimes without cause. In the case of Lightwave 3.0 the word couldn't be more at home. Nine times out of ten using a new feature is simply a matter of picking the most obvious approach – and nine times out of ten you'll be right.

Like many Amiga enthusiasts I've become thoroughly sick of the synchrotron coverage that the Toaster and Lightwave have received over the years in many European magazines – given the fact that none of them have ever even seen it in action.

However after only a brief exposure to this package I'm already hooked. Tune in next month for the in-depth review. By then my initial rush of enthusiasm should have worn off and we'll reveal if all of the expense and hassle is worth the effort.



Product: LightWave dongle and software driver
Supplier: Ramiga International
Price: £399
Tel: 0782 398840
Product: Toaster software collection
Supplier: Ramiga International
Price: £700
Tel: 0782 398840



Modeler multi layers in action

Although the Jpeg file format has brought unrivalled image compression to the hard pressed Amiga, it's largely remained the domain of power users with the financial muscle to afford expensive Jpeg compatible software such as ADPro, ImageX and ImageMaster.

With the arrival of the AGA chipset the battle between space and quality did improve, however even with the assistance of HiRes interlaced Ham's some quality is still sacrificed for a space saving of roughly 50 per cent over the average IFF 24.

In addition to expense associated with Jpeg, accessibility was and still remains a problem with the vast majority only accepting 24-bit data in an IFF form. Once again the need for expensive image processing software is reaffirmed with its inevitable demands on system resources and - as each Jpeg is forced through the sometimes lengthy processing procedure every time an image was stored or decompressed.

Thankfully Pegger should finally put both the financial and time constraints associated with Jpeg to the sword, thanks to a degree of automation which is unsurpassed by any other Amiga graphics utility.

Like the majority of recent releases, Workbench 2.0 or above is an essential for anyone planning to use Pegger. In addition at least 2Mb of RAM are required, along with a hard disk.

The need for Workbench 2 is soon apparent on boot-up as the program leaps into action with three Applications offering compression, decompression and the essential

snoop. For those unfamiliar with the term Applcon it simply means that the program waits in the background while a small window remains on the Workbench screen ready to be double clicked into life or fire up automatically as files are dropped over the icon.

Unfortunately the version on test did show the odd bug when it came to dumping files directly onto the icon, however a bug fix is promised prior to shipping in the UK.

Whether you prefer to double click or drop, the end result is much the same with the main program screen opening ready to accept various details concerning the name, format and placement of the file or files in question.

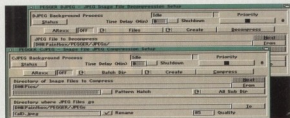
DIRECTORIES

In the case of both compression and expansion, source and target directories are defined, a name applied and the compression ratio or decompressed file format specified.

Although this sounds a lengthy process, 90 per cent of the information is added by a series of pop-up requesters necessitating simple point and click decision making.

Like most file intensive software, pattern matching is well supported in addition to fairly extensive ARexx support. As for the processing options, you're given the opportunity to process either individual preselected files or batch process complete directories - with the options to include sub directories.

Once defined, another click initiates processing with the end results being created in



Single files or batch processing couldn't be simpler

addition to the original file or as a direct replacement. Thankfully file replacement is far more subtle than simply loading converting and overwriting the original file within its parent directory.

In fact, Replace will even delete the original file while copying the newly compressed Jpeg into a completely different directory - adding a new name or append in the process. In the case of compression this will obviously mean Jpeg files, however when it comes to decompression the end results can be either DCTV 3/4 - with or without an optional filtering, IFF 24s, Ham's or the Video Toasters very own Framestore format. Regardless of which direction the file is heading, the aforementioned pattern matching can be employed to filter the wheat from the chaff while optional smoothing can be applied to decompressed Jpegs if necessary.

Although both standalone elements offer relatively painless file processing, there's a distinct lack of automation as at least some input is still required from the user whether

compression or decompression is required.

Fortunately the third Applcon in the Pegger collection provides the ability to assign automatic processing to specific directories. As a result any software can load Jpeg files regardless of whether the package supports the format.

Better still, the same software will now also have developed the ability to write Jpeg files. In truth the software is exactly as before, but thanks to Snoop set-up, Pegger will now keep a constant watch on a predefined compression directory.

INTERCEPT

As a result any IFF 24s heading for this directory will be intercepted by Pegger and automatically compressed with a predefined ratio and saved out with the appropriate file appenda.

As for decompression, the format is pretty similar, with Pegger jumping in to convert a Jpeg into any one of the formats mentioned above whenever a file is requested - regardless of which package is trying to load the file.

It's even possible to assign the automatic compression and decompression to the same directory. As a result programs like Image could save 24 bits to the directory - which would then be intercepted and converted to Jpegs - while DPaint could load the newly created Jpeg file, at which point Pegger would intercept once more transforming the Jpeg to a Ham's, DCTV or IFF 24.

Aside from a brief pause during the conversion process, Pegger's intervention is completely transparent. And courtesy of its fairly minimal system requirements it can be left in the background to convert the output of ray tracers and modelers automatically.

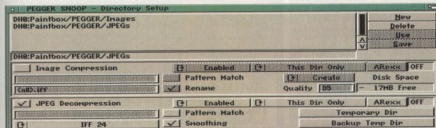
As for a final analysis, it's hard to complain about a unique package which offers a fast and reliable cure for the problem of 24-bit storage. Aside from the slight bug which is already under repair Pegger is the ideal utility for the Amiga's 24-bit generation of artists and animators.



Expand and deliver

Automatic Jpeg compression and expansion courtesy of Pegger.

Paul Austin reveals the graphics utility no Amiga artist should be without



Automation at its best, just sit back and let snoop take care of business.

Product: Pegger
Supplier: Ramiga International
Price: £75.95
Tel: 0782 388840

Ease of use: 8
Implementation: 8
Value for money: 6
Overall: 7

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 with the rabble. You'll be snug and warm, 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 save money and get an extra issue each year.

Direct Debit Subscriptions ONLY £8.49

SUBSCRIPTION ORDER FORM

Choose either a 12 issue or a quarterly subscription, which will start from the earliest possible issue

● I would like the following 12 issue subscription:

New	Renewal		
<input type="checkbox"/> 9642	<input type="checkbox"/> 9643	UK Subscription	£39.95
<input type="checkbox"/> 9644	<input type="checkbox"/> 9645	EEC Subscription	£54.95
<input type="checkbox"/> 9646	<input type="checkbox"/> 9647	Rest Of World Subscription	£74.95
		Canada/USA *	\$98

* Canada & USA subscribers send to: Europress (North America), Unit 14, Bysham Drive, Woodstock, Ontario, N74 1P1, Canada. Tel: 519-539-0200, Fax: 519-539-9725

● I wish to pay by:

Cheque/Eurocheque/Postal Order payable to Europress Enterprise Ltd

☐ Credit Card Expiry Date /

Card No.

● Deliver my magazine to:

Name (Mr/Mrs Miss)

Address

Postcode Daytime phone no.

- I would like a UK quarterly direct debit ongoing subscription
9648 ☐ £8.49 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

Address

Sort code

Your account no.

Name of account

Signature(s)

Date

FOR OFFICE USE ONLY

Originator's identification No.

Ref No.

Your instructions to the bank/building society:

● I instruct you to pay Direct Debits from my account at the request of Europress Ltd.

● The amounts are variable and may be debited on various dates.

● No acknowledgement required.

● I understand that Europress 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.

● Tick which option you want:

- 9583 ☐ Children In Need donation
9576 ☐ Two free issues and a magazine binder
9584 ☐ Alpha Data Mega Mouse and Logic 3 mouse mat

● Send this form to:

Europress Direct, FREEPOST, Ellesmere Port L65 3EA. (No stamp needed if posted in UK.)

the guide to your Amiga!

Take out a subscription and you have two options...

Option 1

Choose one of these free gifts

● Two extra issues plus an elegant Amiga Computing magazine binder

Save
£13.93



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. Your 12 issue order is extended up to 14 issues, at no extra cost, so you get 14 fact-packed issues for the price of only 12.

● Alpha Data Mega Mouse and Logic 3 Mouse Mat

Save
£18.99

The well known Alpha Data Mega Mouse has ultra high 260dpi resolution with optomechanical encoder. The reliable micro-switch buttons provide effortless finger-tip operation. You can have all this and a high quality Logic 3 mouse mat absolutely free when you subscribe.



Option 2

We'll donate £5 to Children In Need on your behalf



Friday November 26, will be Children In Need Day - you probably don't need reminding. This year, here at Amiga Computing, we've decided to do something a bit different. We will donate £5 for every reader who either takes out or renews their subscrip-

tion and chooses this option.

So, why don't you help us to raise as much as we can? We'll send each reader a certificate to verify each donation. It's the easy way for you to help this registered charity - you spend our money!



SUBSCRIPTION HOTLINE
Tel: 051-357 1275
Fax: 051-357 2813

Children In Need is a registered charity. This opportunity to make a donation is organised by Europress Enterprise Ltd, publishers of Amiga Computing. It is not an event directly organised by the Children In Need charity.

**OUT
NOW**

OSCAR

**DANGEROUS
STREETS**

**SURE
NINJAS**

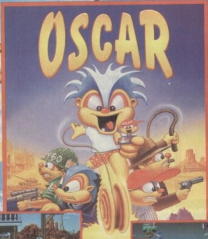
JOYSTICK "THE BEST GAME IN THE WORLD"

**DANGEROUS
STREETS**



WHEN THE GOING GETS TOUGH THE GANGS HEAD FOR THE DANGEROUS STREETS - THE NEW BREED OF FIGHTING GAME, WITH EIGHT OF THE BIGGEST AND BEST FIGHTERS FROM THE NEW YORK BROOKLYN, 256 COLORS WITH SUPER SMOOTH SCROLL, DANGEROUS STREETS IS THE GAME WHICH LEAVES OTHER BEAT EM UPS IN THE UNDERWORLD SHADOWS. DON'T MISS IT!

OSCAR



IT'S HERE AT LAST! THE GAME YOU'VE ALL BEEN WAITING FOR - OSCAR - THE ARCADE GAME OF THE YEAR. EXPLORE THE WORLD OF THE CINEMA AND PLAY THE STAR ROLE AS OSCAR CHANGES HIS DISGUISES TO TAKE PART IN EACH MOVIE HE VISITS. THE PLATFORMER OF ALL PLATFORMERS. HEAVENS SAY IT ALL - READ THEM & BUY IT - YOU WON'T BE DISAPPOINTED!

FLAIR
S.O.F.T.W.A.R.E

EVERYTHING WE DO - IS PLAYED BY YOU

Bah! Humbug, it's...

GAMER



Deck the Hulk
with lots of holly



Plus

REVIEWS... MICRO MACHINES • ALFRED CHICKEN • SPACE HULK
COMBAT AIR PATROL • STARDUST • CARDIAXX • WONDER DOG • OVERKILL

ALSO... CD32 XMAS UPDATE • DAZE DREAMLANDS 3 TITLE COMPILATION
ON THE DRAWING BOARD: ZOOL 2 • CHEAT MODE • LOTS OF BUDGETS REVIEWED
AND ALL THE LATEST NEWS FROM THE AMIGA GAMES WORLD



It has taken the combined talents of a top comic book author and award-winning artist, and a leading development team responsible for a revolutionary and critically acclaimed adventure, to

Gamer GLOBE

Keeping on top of the fast-moving Amiga games world

Viva revolution!

create Virgin's *Beneath a Steel Sky*. Dave Gibbons of *Watchmen* and *Batman vs Predator* fame, and *Revolution*, the people behind the innovative *Lure of the Temptress*, are the two talents concerned, and are jointly responsible for the world's first computer-based animated comic book adventure.

Revolution have rewritten the virtual theatre engine used to drive *Lure of the Temptress*. As a result, *Beneath a Steel Sky's* interface is less

menu driven and simplicity itself to use. Characters in the game have believable personalities and react to events depending upon the situation.

With over 100 different locations, *Steel Sky* is more than twice the size of *Lure of the Temptress*. Dave Gibbons has provided the carefully crafted, digitised comic art which sets the game apart from other adventures.

His decades of experience in the comic book field have helped *Revolution* create a feel unlike any other adventure. Dave has also written and illustrated a scene-setting comic book to accompany the package.

Dave commented on his link with Virgin's adventure: "I'm always interested in telling stories in words and pictures and *Beneath a Steel Sky* is like an interactive story with animated pictures. It seems to be a very logical evolution of storytelling."

Said *Revolution* Director Charles Cecil: "With *Beneath a Steel Sky* we spent a year designing it before any programming was done. During that year Dave Gibbons taught us a lot.

"We believed that combining our skills could produce something really special, something ground-breaking, and it has. *Beneath a*



Some of Dave's finished artwork

Steel Sky incorporates techniques and game play design that no-one has done before. We're not trying to create reality. We're creating a style."

Beneath a Steel Sky is available now for all 1Mb Amigas, although a special A1200 version is also on the cards.



Dave Gibbons busy at work on *Steel Sky* artwork

Edutainment Express

Mindscape have just released a new Mario title on the Amiga. *Mario is Missing* combines the much-loved world of the Super Mario Bros (although Amiga owners won't admit it) with essential educational principles.

Mindscape say that it's a truly interactive video game that enquiring young minds will just love! Yes, despite Mindscape's apparent lack of knowledge about "kids" today, *Mario is Missing* is designed to help kids aged seven and upward to explore and understand world geography in a fresh, fun and fascinating way.

The evil Bowser has kidnapped Mario and his lizard henchmen are stealing the world's treasured artefacts. In their quest to rescue the stocky Italian plumber, kids will travel the world, explore exotic locations, learn to master maps, compass directions, follow routes and collect vital clues.

Mario is Missing contains a magical mix of music, animation, 2D and 3D graphics and a feast of interactive photos, facts, maps and data. It provides an excellent introduction to the skills recommended within the National Curriculum for Geography.

You will need a minimum of 1Mb to run *Mario is Missing*, it'll cost you £29.99 and should be on the shop shelves now.

Cutey cools out

Cool Spot is in town and according to Virgin he is the coolest, most controllable and slickest animated character ever seen on any computer or console system.

Cool Spot's friends have been caught and caged by a bad dude with a stupid haircut called, when *Wild Wicked Willy Will*. The red and round spot must of course rescue all his chums - cue a cutey platform romp.

The star of the show walks, runs, leaps, hangs loose, bounces, climbs and still finds time to dust himself down, clean his shades and play with his yo-yo.

The weird characters that attack *Cool Spot* on his travels are no less well drawn and animated - hellm! crabs that go wild when they lose their shells and manic mice who chuck chalky cheese at the rotund platform hero to mention just two.

The game features 11 stunning levels plus 6 bonus stages set inside a big bottle of Fizzy pop. The parallax scrolling scenery is so huge, smooth, detailed and colourful that your eyes will find it hard to believe that they haven't died and gone to heaven.

That's what Virgin reckon anyway, but find out for yourselves, as *Cool Spot* is out now.

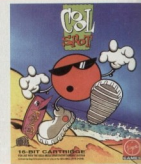


Going for Gold

US Gold have beaten the industry's top players to win sole rights to produce and distribute worldwide the only official computer game for the 17th Olympic Winter Games Lillehammer 1994 in Norway.

The Birmingham-based firm, part of the CerniGold home entertainment empire, secured this - one of the industry's most sought after contracts - following the success of *Olympic Gold*, their official game of the Barcelona '92 Summer Olympics, which recently topped £30 million worth of sales.

The new game will be for up to four players and



will be available in eight languages. It will show full opening and closing ceremonies, authentic course and venue designs, three difficulty levels, Olympic/world records, male/female opponents, map screens and animation sequences linking events.

Winter Games '94 will feature ten events including downhill, slalom, super slalom, biathlon, short track, super G, ski jump, bobsleigh and luge. The box's Christmas release date and is expected to be a hot seller throughout 1994, mirroring the success of *Olympic Gold*.

INNARDS

Ho-ho-ho! More stuff-in than your Christmas roast

REVIEWS • REVIEWS • REVIEWS

Micro-Machines 128

Simon puts on his Santa suit and goes Micro mini chasing in this table top race caper from Codemasters

Space Hulk 130

In space no one can hear you scream, well that's what they said in Alien... will the same be true of Electronic Arts sci-fi RPG conversion?

Stardust 132

No not Ziggy, it's an all dancing, all singing new version of that arcade rock classic Asteroids

Combat Air Patrol 134

Jonathan gives his helmet a scrub with the old wire brush, jumps aboard his spangly jet and flies right into occupied territory

Wanderdog 136

Woof, bark, growl and pant. Jonathan gives old sheep a bone of his own in Core Design's latest canine caper

Dreamlands 138

Storm Master, Ishar and Transarctica have all been bundled together, and await you under a pine tree in your local games emporium

Overkill 140

More Mindscape mindless mayhem as defender gets the 90s treatment

Alfred Chicken 142

He's not the Christmas roast, and he certainly isn't a member of parliament, but he is the chicken whose kickin'

Cardixxx 144

Sheer heart attack in another budget stocking filler from Team 17

CD32 Update 148

What's fresh in the world of Commodore's new love child for the festive period

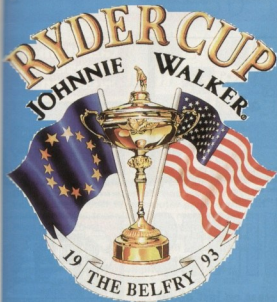
REGULARS • REGULARS • REGULARS

Drawing board: Zool 2 146

the ninja from the nth dimension's getting ready for his comeback, on this time he's got a chick

Cheat Mode: Ishar II - Messenger of Doom 150

The first part of this complete guide to hacking and maiming your way around lands of old in the snow



Fore!

Ocean are about to tee off with Ryder Cup Golf, the officially licensed game of one of the most famous tournaments on the golfing calendar.

The gameplay is fast and you must skillfully control your team of 12 players to ensure that you get your hands on the esteemed Ryder Cup.

Ryder Cup Golf brings you as close as you can get to the real thing without wearing a colourful jumper and getting very wet.

The Gourad graphics are supposed to be so real that you can almost smell the freshly mown grass and hear the rustle of branches in the wind as your ball sweeps smoothly across the 3D landscape.

Realism is ensured using a sophisticated ball control system which allows pinpoint accuracy for every swing. This doesn't mean that play is easy and the three courses are packed full of bunkers and various other tough hazards.

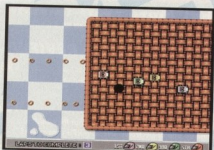
Ryder Cup Golf will arrive on your shop shelves very soon and there will be A1200 and CD32 versions too.

GET IT BEFORE IT GETS YOU!!

ALIEN BREED 2 - NOW AVAILABLE

TEAM 17

TEL: 0924 201846



Race around the tablecloth, jump the waffle and be careful not to leave your skidmarks on mum's favourite piece of Gingham



Who says Heinz Bultids Brits? Silly things just get in your way when you're racing

MICRO MACHINES

Anyone who watches their box to any great extent can't possibly help watching the adverts that accompany your dose of soaps.

Last Christmas one of the many toys to take the British public by storm were the Micro Machines. This range of miniature vehicles were billed as detailed models of the genuine article yet small enough to fit on your little finger.

These days where there's any scope to market a product further, you can bet your bottom dollar that the companies responsible will. Guess what, this is precisely what happened with the Micro range.

They first appeared with jubilation applause on formats like the Sega Mega Drive. Now after a long wait MM has decided to materialise on the Amiga.

Being a product originally designed for formats like the Mega Drive, Micro has a very console style to it. When you first glance at it, Micro Machines looks fairly poor in relation to what the Amiga is capable of.

However, just because the graphics are of a fairly simple nature it doesn't mean to say that the game isn't highly playable. This is definitely the case with this title. The sprites are small and the sound doesn't stretch the Amiga at all, but it is damn playable.

Micro Machines is one of those games that really doesn't have much of a plot or much background; it's theme is very simple.

So having to write about it is quite tough. I mean I could sum up the entire scenario in about five words. It's a racing game featuring the Micro

It's been a storming success on just about every console format and now it's making its racing debut on an Amiga near you

Machines (well OK, so it was eight words). But I can't do this because it would be a very blank page and yours truly would be back in the queue with the other millions!

All right, there is slightly more to it than has been mentioned thus far, so without any further digression let's split it out.

Micro Machines puts you in the tiny driving seat of a wide variety of different miniature vehicles. These vary from power boats through to combat tanks, Formula One Grand Prix cars and helicopters.

Now straight away you're probably jumping to the same conclusion most do, that this is nothing new; a race around the old tarmac in cars and boats viewed from the top.

But this is where you're wrong because the main novelty aspect to Micro Machines are the tracks. Rather than your typical road scenario, the courses are set over such things as breakfast tables, bathtubs, warbenches and patches.

Sounds odd but it works a treat. It's really very entertaining having to guide your dune buggy around a track composed of five Kravies, avoiding the beans and trying your hardest not to skid off the table cloth into oblivion. In total there are 27 tracks and they're all made up of as silly things as this above.

As far as who you race against on these varied

(surreal - get it folks?) tracks, there's a full complement of cartoony style characters to choose from.

There are two types of races you can compete in. The first is a four competitor-first-around-the-track affair and the second is a two player head-to-head.

Obviously in both types of race you race against either computer opponents or a chum of your choice.

Ready no amount of words will ever be able to justify Micro Machines - the proof is in the playing. It's simple in design, simple in the graphic department, but highly playable and highly addictive.

SIMON CLAYS

Gentlemen, choose your weapons...



Fun and frolics in the tub with Power Boats



Turbo Buggies are just the ticket for tough terrains like pencil cases



The Ruff Trux will get you through anything



Skid off the track on the school desk in your sports car and it's hard lines



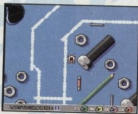
Helicopters are excellent for trimming your Mum's herbaceous borders



The Dune Buggy's are great when life's a beach



Row, row, row yer boats merrily down the bathtub...



Steer skillfully or you'll bang your nuts and bolts

VISION	●●●●●●●●
AUDIO	●●●●●●●●
DIFFICULTY	●●●●●●●●
LASTABILITY	●●●●●●●●
Micro Machines is one of the few console cross-overs worth getting served up about for the Amiga. Don't be fooled by its simple appearance, it's really pretty good.	80%
Publisher ▶ Codemasters Developer ▶ In house Disk ▶ 1 Price ▶ £25.99 HD Intel ▶ N/A Size ▶ 1 meg	

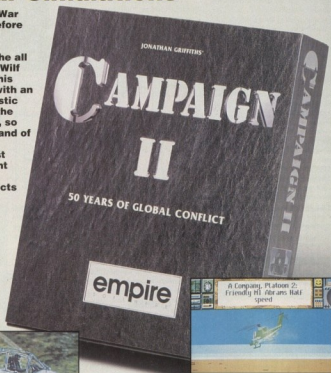
50 YEARS OF GLOBAL CONFLICT

Campaign II heralds a new generation of War Simulations

Campaign II heralds a new generation of War Simulations with more depth than ever before and fabulous real-time 3D action.

The depth to Campaign II is provided by the all new strategy. Expert Military consultant, Wilf Owen, from recent conflicts has brought his knowledge to bear on computer gaming with an end result that looks and feels more realistic than ever before. All aspects involved in the running of an army have been considered, so that now you can place yourself in command of either side, at any level in the chain of command. Over 130 templates of the most significant military forces from 56 different nations of the last 50 years have been included to gain an insight into real conflicts such as Korea, Vietnam and Operation Desert Storm.

The action takes the form of fast 3D graphics if you choose to enter the battlefield in one of the 152 types of military vehicles. APCs and Mobile Artillery, utilise weapons ranging from wire-guided missiles, rockets, homing missiles, and machine-guns supported by laser rangefinders to tracer rangefinders, night vision, and gun stabilizers.



- Campaign II has emerged as the most comprehensive simulation with new improved strategy, at any level in the Chain of Command (C.o.C.), closely resembling that of a real military situation.
- Hands-on action as you fly helicopters in air-to-ground or air-to-air attacks.
- Deploy the animated infantry during fierce battlefield action in a new improved 3D environment.
- Featuring all the modern weapons systems: guided missiles, rockets, homing missiles, laser rangefinders, gun stabilizers and night sights.

empire
SOFTWARE

**CAMPAIGN WAS BIG — CAMPAIGN WAS GOOD
CAMPAIGN II IS BIGGER, BETTER AND QUITE SIMPLY
THE MILITARY SIMULATION OF THE YEAR!**

Since Space Hulk drifted its way into the Gamer igloo (it's grin this time of year up north), it's received a fair amount of attention.

As we crowded around the fire the other night discussing tactics, I drifted into a slumber and dreamed we were all space marines...

There we were, a lethal squad of terminators aboard the Space Hulk, our mission to destroy the genestealers before deadline.

Our mission briefing commenced, with a morale-boosting message from the emperor, Bloomers:

"After you've carried those boxes over to the silo, I'd like you to infiltrate the Space Hulk and terminate the dreaded enemy."

BRIEFING

Sitting there, quaking in my oversized Burtons (spaceuit), my expression dropped further as our squad leader continued his briefing.

"Right, we've got no choice, it's our job. Anyone who complains I'll personally take out to the fighting tree and beat seven shades out of them, so no whining, let's get on with it! Any comments?"

From the corner of the room a timid hand slowly broke the line of stooped heads. It was technical officer Colon, trembling as he spoke.

"I think it would be a good idea if we were all a bit quieter..." he stuttered, adjusting his fluorescent shoulder band.

Before anyone could comment he was floored.

Gladiators are you ready?



Terminators

Almost all Marine Chapters have Terminator squads. Usually a/d, they've been passed down the ages and are covered in the scars of battle. Only the best marines are bestowed the honour of using the armour.

Along with this honour comes extra training and effective technology for battle. All suits contain life support systems, bio-scanners, energy scanners, auto sensors and targeters.



Genestealers

A horror of teeth and claws, the Genestealer is the perfect biological killer. They know no fear and feel no remorse and have one prime directive; to multiply and survive.

one fatal blow from hard ex-con Dazza Biggs. I gulped hard and quickly started moving boxes with my Gamer colleague Biff.

I don't recall how long we lumped parcels into the silo, but that's dreams for you. Time seemed an impossible quantity to measure, everything became translucent and before I knew it we were assembled at the main entrance to the Hulk.

The hardest, finest set of marines this side of Macclesfield and me. I eyed them one by one, looking into the steely grit of their vacant pupils.

Squad leader Ste-Vee, a veteran with psychopathic tendencies. Big Ozzie, second in command, a huge beast of a man and not to be trifled with. Butrix, a brutal individual with masochistic tendencies towards the young or infirm.

Then came Dazza Biggs, wanted in four spe-

SPACE HULK

rate star systems for felonies against the state. Next in line Ochoos Morse, who wears a sound system in battle and goes into a blood-letting frenzy to the sound of a bone-crunching piano line. Following him, A-Dum, whose voyeuristic desires had led him to take vid-shots of all the carnage - friend or foe.

As Biff (who's by far the youngest) and myself took our places in line, we exchanged a nervous glance and waited.

DARK RECESSES

The silence was abruptly broken by the dulcet bark of Ste-Vee.

"Biff, Clays, lead the assault!"

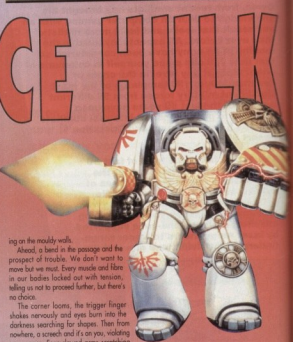
I swallowed hard and nervously cocked the firing pin on my Bolter. Its sound resonated around the Hulk like the drop of the hangman's noose, cold and final.

The doors of the hulk slid open and a cold wind blew at our visors. Simultaneously we both gulped, then stepped forward into the gloomy hall light, shoking. Seeing the light in our petrified eyes the others laughed, and taunted us as we switched to radio contact only.

Amid the noise of the intercom abuse, the others fell back and we explored the dark recesses of the corridor. It smelled, the stench of death linger-



Meet the Chippendales in their own latex body armour

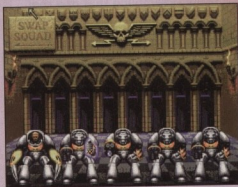


ing on the mouldy walls.

Ahead, a band in the passage and the prospect of trouble. We didn't want to move but we must. Every muscle and fibre in our bodies locked out with tension, telling us not to proceed further, but there's no choice.

The corner looms, the trigger finger shakes nervously and eyes burn into the darkness searching for shapes. Then from nowhere, a scream and it's on you, violating your space. Four clawed arms scratching and tearing with no remorse. We scream but it's to no avail.

A red hue deepens over my sleep and suddenly I'm drawn from Lady Morphine's world, slumped in front of a frosty monitor in the Gamer igloo.



Here's your set of likely lads, tooled up to the teeth

Rising to my feet I'm suddenly filled with a cold and the realisation that this dream has given birth to an introduction which both sets the scene and shows some of the atmosphere that Space Hulk generates.

Based loosely on the role-playing game, Space Hulk is set in a future world, long after man has developed warp drive and explored the frontiers of the void.

The game gets its name from the battleships, for all the missions, the Space Hulks. These floating ghost ships are the result of cross currents in the warp drive which left them trapped.

These abandoned nightmares have long been the bane of the Empire as they have become a breeding ground for the Genestealers.

The first thing to say about Space Hulk is that it's a very in-depth game. In the normal "eager to get into the action" fashion I jumped straight into one of the mission settings. Needless to say our campaign lasted about 15 seconds, with all five of the Terminators having eaten space vacuum as they staring blankly at the screen, listening to the haunting loading tune.

Never has it been so imperative to sit down

et the
pend
their
ex body
mour

with the manual and study it. In fact, in Space Hulk there are two to peruse and they're well worth a thorough.

The game also contains an in-depth tutorial menu which comprehensively guides you through each aspect of control and tactics.

Basically, it runs off two main screens, both of which are accessed by your favourite pal the mouse. The main screen contains 3D windows of your team and an overhead scanner view.

CHANGING CURSOR

There are five windows in all, the largest being the central one which normally contains the character you wish to control. This isn't to say that control isn't possible within the four smaller windows, it's just that due to the size, control is easier to negotiate in the central one.

Movement and firing within the graphic window is via a cursor which alters depending upon its position within the window. At the edges of the window it moves you in the relative direction to its position and in a more central position it changes into a crosshair and fires your weapons.

Due to the nature of Space Hulk and the speed at which the Genestealers attack, a number of tactical options have been implemented.

Clicking on the right mouse button when the cursor is on the overhead scanner transfers you to

a control screen, where team orders can be given. Here icons allow you to order your squad members to move, open and close doors, and most importantly, put down fire.

Another feature is overwatch mode. This adds an extra dimension of intelligence to your team and should be treated as a default mode for moving.

For example, when one of your marines is following your orders and something attacks him, it would be quite natural for him to react - overwatch implements this for you automatically.

Obviously with five or even ten marines at your disposal, planning and orders can take quite a while, so a freeze time facility is included.

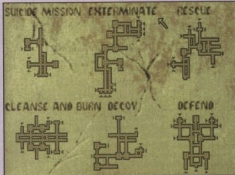
Unfortunately for you, freeze time is limited so you can't take a light year deliberating over strategy. However, the longer you play in real time, the quicker your freeze time builds up again.

Once you've completed the tutorial, there are over 30 missions to pit your wits against, including the ominous Deathwing campaign.

In the Deathwing campaign you can make the decision over which squad to take into battle and which type of weaponry you fancy kitting your Terminators out with.

There are 12 in total and they vary from the rocket-shelled Bolter through to the highly effective Heavy Flamer.

Here's a set of well dodgy missions



Help! There's a Genestealer trying to clip me helmet

Once you've established how to control Space Hulk, it becomes a fairly straightforward, addictive title. All right, it drops most of its inspiration from Aliens, but it's for you to decide whether that's a good thing or not.

Most of the Hulks are very similar in style and the graphics aren't that well rendered. However, they're effective enough and coupled with the moody soundtrack give enough of an overall effect.

The main problem with Space Hulk is that it really is difficult. The Genestealers move quicker than Scooby would do if Harry Corbett's hand was cryogenically frozen. This makes for long periods of depression and desperation, until you master how to defeat them effectively.

For worse though is the amount of disk accessing you have to go through and the fact that the program isn't hard drive installable.

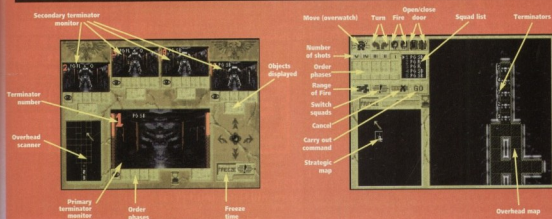
You might think I'm being pedantic, but after the seventh mission failure it starts to grate a little. You've spent a total of 45 seconds getting annihilated and 35 minutes disk swapping to the sound of something off Scooby Doo.

This aside though, once you've mastered the control you'll really get into Space Hulk and find it additively challenging for a long while.

SIMON CLAYS

VISION	●●●●●●●●●●
AUDIO	●●●●●●●●●●
DIFFICULTY	●●●●●●●●●●
LASTABILITY	●●●●●●●●●●
Space Hulk might well be a remake of a famous film about Aliens, but it doesn't stop it being a very difficult strategy-cum-3D dungeon-esque title with plenty of action and gripping play.	85%
Publisher ▶ Electronic Arts Developer ▶ In house Discs ▶ 3 Price ▶ \$34.99 HD install ▶ No Size ▶ 1 meg	

Those controls in full



with col
given bur
screen en
space Hul

me, Space
mon has
rankers o

background
floating
ents in the

long been
come the

Hulk is the
eager to
right into
say each
all five o
sum and
ing to the

sit down

Do you remember the early days of computer games? Do you remember a particular wire-framed arcade-cum-pub classic, *Asteroids*?

There won't be many who haven't seen some or other version of this landmark in the annals of software history. I have vivid memories of entering my local tavern in an attempt to do battle with wire-framed UFOs and the outlines of large chunks of rock.

This was no mean feat as to play my favourite stand-alone piece of high technology, I had to get past the disconcerting eyes of the landlord.

The lengths to which this reviewer went to as a young man just to satiate his desire for electronic mayhem were quite disturbing.

Preparation would begin some five days before my sticky coinage got anywhere near the slot of the machine. The golden rule was to appear mature; this was perfected by exercising a tight regime of not showing.

No matter how much the scratching and licking persisted, showing must be avoided. With this in mind, it was imperative to avoid the cat who would inevitably lick my bum full of it.

Preparation also involved stealing Dad's after-shave, saving school dinner money (expenses) and giving my boyish anatomy as much room as possible to keep my voice as low as was hearily achievable – tight pants were definitely a no-no.

Before all the planning felt in place, the big night would be upon me. Approaching the bar surreptitiously, with all the swagger and poise of someone at least 18, I would order my pint of insipid bitter, then disappear off to the arcade machine, not even touch the beer and regress to the mental age of a four-year-old, blasting to my heart's content.

But that was then and this is now, and the industry has come a long way. However, it seems that the Amiga is about to be pulled that little bit further by French programmers Bloodhouse.

Published under the Daze umbrella, *Stardust* is a spectacular version of the old *Asteroids* theme. The basic object is to clear the screen of asteroids and enemies while collecting all the bonuses and power-ups.

While it's a very simple game in essence, there is a tiny sub-plot. An evil professor has taken it upon himself to destroy the galaxy in its entirety and kidnap the beautiful princess Voi.

To this end he has cunningly disguised his top agents as meteoroids which he's dispatched to go on the rampage.

You play the do-gooding chivalrous hero in your top men's party space ship, whose task it is to blow everything to pieces.

OK, so there's the plot which really is purely incidental; the main thing



If you're wondering where the spaceship is, it's under that grey blob which acts as your shield



Oh dear, it's a death flying robot drone thing. Misty looking things, but wonderfully ray-traced!



By jabbing the spacebar during gameplay you can call up the weapons selection screen

STARDUST

Let's take a stroll down memory lane and look at this Swedish *Asteroids* clone which has received a complete lick of 90s paint

the Bloodies (as we shall now call them) have been screaming about is that *Stardust* pushes the Amiga through new boundaries in graphical capabilities. They've employed a ray tracing technique as

yet unknown in the world of home computers. *Stardust* also uses 32 colours in the overscan mode. The programme has taken a full year to complete and much of its tech development is down to Bloodhouse's chief programmer. He was formerly responsible for the development of *Real 3D*, possibly the best ray tracing packages available on the Amiga.

Playwise, there are dozens of *Asteroids*-like levels to do battle in. After the successful clearance of each planet, you play a sub-game as you travel to your next destination.

This is one of the most impressive routines ever to run on the Amiga and really does push its circuits to the limit.

It's a fast rolling, mega-scrolling shoot-'em-up blitz which left all of us completely gaga. Really the screenshots don't do this aspect of *Stardust* any justice – playing is believing.

The other great thing is that it comes at the bargain price of £14.99, though it's not a budget title by any means.

Stardust is going to go down as the definitive *Asteroids* clone for the Amiga. It's visually brilliant, sounds great and plays superbly.

The idea's a simple one, but works very effectively and at this bargain price, *Stardust* is irresistible. Now, you really can show off to all your mates who own consoles...

SIMON CLAYS



Having conquered the first six stages you face the end-of-level guardian

GAMER GOLD

VISION	●●●●●●●●
AUDIO	●●●●●●●●
DIFFICULTY	●●●●●●●●
LASTABILITY	●●●●●●●●
A classic, there's no two ways about it. I just can't stress enough the merits of this title. It's brilliant, has fantastic graphics and is really playable. Total arcade quality - miss it at your peril.	
92%	
Publisher ▶ Daze Developer ▶ Bloodhouse Disks ▶ 1 Price ▶ £14.99 HD Install ▶ No Size ▶ 1 meg	

Logic 3

Logic3

...Bringing the best out of computing!

Commodore & Atari Controllers



Logipad

The world's first fully microswitched Control Pad.

- Six fire buttons
- Eight-direction thumb control
- Autofire
- Six foot connector cable.

Model No. JT 160
£18.99 inc. VAT.

SpeedMouse

- Switchable mouse for both the Amiga and Atari ST
- Feather-touch button control
- 300 dpi
- Smooth and accurate movement
- Comfortable to use.

Model No. LG 2RG
£16.99 inc. VAT.



Quatro

Classic arcade-style design

- Six heavy-duty microswitches
- Two fire buttons
- Extra-long connector cable.
- Steel shaft

Model No. JT 154 £12.99 inc. VAT.

Pinto

Miniature version of Quatro.

Suitable for younger gamesplayers or hand-held play.

Model No. JT 151 £12.99 inc. VAT.



Quatro GT

Classic arcade-style design

- Six heavy-duty microswitches
- 3-way autofire facility
- Extra-long connector cable
- Slow-motion facility
- Independent rapid-fire button
- Two fire buttons
- Steel shaft

Model No. JT 155 £16.99 inc. VAT.

Pinto GT

Miniature version of Quatro GT but without rapid-fire and slow-motion. Suitable for younger gamesplayers or hand-held play.

Model No. JT 152 £16.99 inc. VAT.



Delta-Ray

New 'Comfort-Grip' handle

- Nine high-quality microswitches
- Extra-long connector cable
- Five fire buttons
- Autofire plus rapid-fire function
- Suction cups for extra stability.

Model No. JT 156
£15.99 inc. VAT.



FreeWheel

Can you imagine Nigel Mansell using a joystick to control his car around a high-speed track? Probably not. That's why we came up with the FreeWheel. Just plug it into your computer joystick port and experience the real sensation of driving!

- Suitable for all types of driving and flying games
- Uses unique angle-sensitive switches
- Extra-long connector cable
- Does not need to be mounted or fixed to a surface.

Model No. FW 111 - Digital FreeWheel for Amiga/ST/C64 etc.

£29.99 inc. VAT.

Model No. FW 123 - Analog FreeWheel for Amiga £39.99 inc. VAT.



AVAILABLE FROM MOST COMPUTER STOCKISTS OR CALL OUR
TELEPHONE HOTLINE: 081-902 2211.

POST AND PACKAGING £3.00 PER ORDER.

SPECTRAVIDEO, UNIT 27, NORTHFIELD INDUSTRIAL ESTATE, BEREFSFORD AVENUE, WEMBLEY, MIDDLESEX HA9 1NW, ENGLAND
TELEPHONE: 081-900 0024 ● FACSIMILE: 081-903 9625.



**SPECTRA
VIDEO**
TEL. 081-902 2211

Sit down and chill, while you view the aftermath of your mission



COMBAT AIR PATROL

Pygnosis's new flight sim looks like their best product for a long while. Jonathan Maddock adjusts his flaps and takes a look

If you utter the word *Pygnosis* then you'll more often than not get someone saying "oh, that company from Liverpool who did *Lemmings*". *Lemmings* is a classic piece of software, but unfortunately it has dwarfed *Pygnosis* as a company.

Over the years, *Pygnosis* has produced some of the best and most ground-breaking games you're ever likely to see: *Shadow of the Beast*, *The Killing Game Show*, *Armour-Geddon*, *Lemmings*, *Hired Guns* - the list is endless.

For a while though, everything went a bit astray with the releases of *Ork*, *Leander*, *Cytron*, *Aquaventure*, and *Air Support*. Every single one was a bit of a stinker and it looked as though the *Pygnosis* were simply biding their time until the release of *Lemmings 2*.

I am now proud to announce the re-launch of Liverpool's finest software house.

In production at the moment are *Second Samara*, *Macracon* and *Armour-geddon 2*. The first off the production line is *Combat Air Patrol*.

Sharp-eyed readers will notice that we actually reviewed it almost seven months ago, but then it was stuck by production problems and the game designers decided to make some improvements.

Combat Air Patrol is now in the shops, so we felt it was only fair to re-review it for new readers and those who might have missed it first time around.

The game is a flight simulation accurately based around the F-14 *Tomcat* and the F-18 *Hornet*, and to top it all off it's set in the time of the Gulf War.

The primary objective is the explosion of enemy forces from within the pre-invasion boundaries of Kuwait. This where the game starts to mix reality with fantasy as you take control of the coalition forces. It's up to you just how important any follow-



Normally it's the locker room, but here in the hangar's where the lads adjust their weaponry

up measures will be once the Iraqis have pulled out of Kuwait - if you manage to get that far!

You may decide that the coalition forces should continue the retaliation up to the point where Iraq itself is invaded and the fleeing forces "neutralised". It is entirely up to the individual.

Another objective in any re-invasion scenario would have to be Saddam Hussein himself and *Combat Air Patrol* includes points where you might just have a chance to end his life.

Before you start the Gulf war campaign you must familiarise yourself with the two planes you'll be using, depending upon which mission you happen to be flying.

This can be done in two ways. The first is to select a training mode, which allows novice and experienced pilots to fine-tune their skills in a large number of areas. Flight training and weapons training against both air and ground targets are offered to test and practise your skills in all areas of combat.

The second way is the single mission option which allows an individual plane against a single selected target. Both air and ground attacks are available although your role on a mission will depend on which type of mission you selected.

There are 13 missions to choose from to test out your skills as a pilot. These range from train-

GAMER GOLD

busting to runway strafing to Scud strikes. Whichever you decide upon you can guarantee that it's packed full of action.

Once you've mastered the flying technique you can start the full campaign which is what *Combat Air Patrol* is all about. The campaign section is too lengthy to go into major details about, but we basically take over the role of Norman Schwartzkopf as well as flying your two planes in battle. This section is terrifyingly realistic and will keep you going for months on end!

But the best part of the game has to be the actual flight simulation where you get the chance to leap into a F-18 or F-14 and declare war on the enemy.

As you enter the cockpit, you see the controls and instrument panels, the outside world, through the cockpit windows, and the HUD (Head up Display) upon which some flight and all combat information is displayed.

Because there are two planes, you have to learn what they do. Both the *Tomcat* and the *Hornet* share a number of controls and instruments which



Ooh! What a pretty helmet you've got



Sitting on the deck of the (Aircraft Carrier) Bay...

No, it's not a weather map. It's a strategic view of the Gulf war, or have they changed it to conflict, or did it happen at all?



Stunning view of your cockpit



I wonder why it's called the combed view - is it because the pilot brushes it before he looks at it?



One of the many stunning-external shots - always a lot better than an internal view!

are essential for any aircraft. These instruments, such as altimeters and speed indicators, may however be displayed in a slightly different manner, often using a variation upon a standard instrument.

I won't bore you with hundreds of fiddly little details about the game, but will instead answer this question: What makes Combat Air Patrol different and better than all the other flight sims available on the market?

Well, for starters Combat Air Patrol doesn't play or feel like another flight sim. Even after just one go it seems fresh, new and exciting and puts some others to shame.

There are many nice touches, such as the radio. This allows contact with the airbase and other friendly units who keep you informed of campaign events as they unfold. This is very well done and highly realistic and it's all thanks to a few samples.

The graphics are particularly impressive with some brilliant views, such as the fly-past view which literally takes your breath away every time you turn it on.

The views are worth mentioning because you seem to be able to look at your aircraft and others from just about any angle imaginable.

The outside graphics are perhaps a bit sparse, but I suppose that's because they're fighting in the desert where only canals and huts exist.

I personally think that some flight sims are a bit

stuffy and far too technical for their own good, but Combat Air Patrol has been a pleasant surprise.

The manual is nice and easy to read and comes complete with a sheet with numbered instructions on how to fight in the air, shoot things

on the ground and more importantly how to take off! One of the most impressive factors has to be the speed and smoothness at which Combat Air Patrol runs. I played it on the A1200, but it was just as impressive on the A500. I couldn't find

fault with it, and as a reviewer it's not often that I find a "perfect" game. I could drone on and on for hours about Combat Air Patrol, especially as I'm not normally the sort of person to really be impressed by this sort of game, but suffice to say that Combat Air Patrol is a bit special, and flight fanatics should check it out immediately.

Psygnosis have started on the road to recovery and this is just the kind of game that will make the likes of MicroProse shake in their boots.

JONATHAN MADDOCK



Flight roster or our stewardess' address book, who knows?



Float to earth precariously on technicoloured bin lid

It's plane to see...

F-14 Tomcat ▶

The Grumman F-14, or Tomcat, was developed as a no-compromise multi-purpose fighter aircraft. During years of service throughout the world, it has become the backbone of the US Navy fighter capability because of its outstanding performance in all areas of aerial combat.

It is powered by two General Electric F110 engines which accelerate the aircraft up to a speed of 1,560 mph (mach 2.3), making "straight-line" performance comparable to any fighter aircraft in the world.



◀ F-18 Hornet

The McDonnell Douglas/Northrop F/a-18 Hornet (to give it its full title) was conceived to fulfil a multi-purpose attack/fighter role which could also meet US Navy specifications.

It utilises two General Electric specifications augmented turbofans which output 32,000lbs thrust offering maximum speed capabilities of 1,200 mph at altitude.

The large wing area, strengthened and widened fuselage following for a larger fuel payload and redesigned avionics pay tribute to the naval origins of the F-18, meaning increased range and take off/landing capabilities.

It also allows the F-18 greater self-sufficiency in the field and ability to carry an extensive missile payload.



VISION

GGGGGGGGGG

AUDIO

GGGGGGGGGG

DIFFICULTY

GGGGGGGGGG

LASTABILITY

GGGGGGGGGG

Combat Air Patrol is the tight sim of the year and comes recommended for light sim expert and beginner alike. It's fast, fun and highly addictive. A worthy Gamer Gold winner!

91%

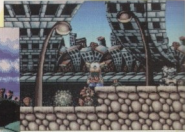
Publisher ▶ Psygnosis
Developer ▶ Maverick Simulations
Disks ▶ 3
Price ▶ £
HD Install ▶ Yes
Size ▶ 1 meg



Wonder Dog jumps around with the bunnies at the beginning of his adventure



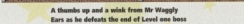
By-up Chuck! WD practices a bit of rolling pin jumping on the second level



Fancy getting beaten up by a cat! No wonder he's shocked!



By-up Chuck! WD practices a bit of rolling pin jumping on the second level



A thumbs up and a wink from Mr Waggy Ears as he defeats the end of Level one boss

Conclusive proof! The moon is made of cheese and little green men do exist!



WONDER DOG

Woof Bark!
Doggy platform fun courtesy of Core Design. Get down, Shep!

If you had to name your top ten cutsey platformers, I can bet that you'd scribble down Chuck Rock as one of your favourites. Chuck Rock, which was created by Core Design, was a playful romp through the prehistoric ages.

The game's graphics shone out. They were drawn in a very cartoon-like style, but still managed to look good on the monitor screen. The animation was top-notch and you found yourself displaying cheesy grin after cheesy grin at the slapstick antics of Chuck and his enemies.

Mr Rock proved to be a big seller for Core Design, and they are pinning their hopes on their next game to do the same. Wonder Dog is a conversion CD (hence the name!), but don't let that put you off.

This is the point of the review where we turn into Jackanory for a few brief paragraphs. Are you sitting comfortably children? Good, then I shall begin.

General Von Ruffbone and his loyal army of vicious dog troopers are sweeping, achieving total galactic domination in their wake.

As the enemy approaches the tranquil planet K9, a young pup is hastily injected with the top secret "wonder" serum and launched into space in a bone capsule.

Crashing to earth light years later, Wonder Dog must mature and develop his fighting skills by completing the seven perilous levels, gaining the required combat skills and defeating adversaries in order to return and save his planet from annihilation.

That concludes Gomer Jackanory for today, but we'll be back next week with the second part to the story, to be read by top TV funny man and game show host Les Dennis...

The action starts at Bunny Hop Meadow. The meadow is full of green pastures, clear skies and

crystal blue waters and this is where Wonder Dog must begin his basic training. On this first level our doggy chum is plagued by all manner of dangerous creatures. Fluffy bunnies, swooping ducks, spiky hedgehogs and wily foxes are all out to stop him in his prime.

The pup with the floppy ears must collect as many of the bonuses and power-ups as possible in order to increase his score and more importantly gain extra lives.

On his "walkies", Wonder Dog will find various items that he can pick up. These include wings for energy, jewels that will give him extra points, bones (if he collects 100 he will get an extra life), whirlwinds for shorter invincibility and smellys which reveal hidden platforms that lead to secret bonus levels.

Wonder Dog is a good little platformer, but is by no means a classic. The graphics are magnificent, wonderfully drawn and well animated.

The mid and end-of-level bosses are massive and again have been sketched to perfection.

The tunes are heavily loaded with a tremendous bit of bass playing and at no point do you feel like reaching for the volume switch to turn it down. Actual in-game sound effects are very sparse, but those which are in there are more than sufficient.

Wonder Dog is going to be one of those platformers that will either interest or infuriate you. Some gamers might not like the control system because as times it's quite finicky and you seem to fall off platforms through no fault of your own. The controls for me though were just fine and simply added to the challenge of the game.

Core's platformer is extremely hard and the later levels are not for the faint-hearted or the beginner. Wonder Dog will last you quite a while, but it is not fan-

tastically different from any other cutsey platformer.


So in the end, recommended for dedicated platform followers only, which is a shame because this is the best looking platformer I've played in ages.

Maybe with a bit of extra thought placed in the gameplay department it could've appealed more, but it turns out nothing more than an average romp.

JONATHAN MADDOCK

VISION	
●●●●●●●●●●	
AUDIO	
●●●●●●●●●●	
DIFFICULTY	
●●●●●●●●●●	
LASTABILITY	
●●●●●●●●●●	
Cute to look at it may be, but if playability isn't there then all the graphics in the world won't save the day. One for the dedicated platform freaks only, I think.	72%
Publisher > Core Design Developer > In-house Disk > 2 Price > £25.99 HD Install > N/A Size > 1 meg	



NETWORK Q  RALLY

CHECK OUT THE LATEST FLIGHT SIMULATOR



Get your
FREE
Rally Souvenir
Poster by telephoning
0625 859333
NOW.
Limited Edition.

This rally sim's so lifelike you can almost smell the high-octane fumes. **"We have lift off!"** Just what you **don't** want to hear from your computer co-driver...

He's screaming pace notes above the shriek of the engine... you're pushing it to the edge in the final thrilling stages of the Network Q RAC Rally.

You're strapped into one of the five rally-bred supercars, speeding in the exact tracks of the '93 Rally leaders. Each car handles differently. Each tests your driving skills flat out.

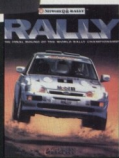
You're picking up vital seconds when you hang a bend late, clip a bank and flip into a roll – damage your car and you dent your chances.

It's the sequel to the top-selling RAC Rally game. But the sound's even more deafening, the digitised video graphics even more in your face for an atmosphere that's totally turbo-charged.

Flying around the world's toughest rally course is one thing. Staying on earth is another.

WARNING: CRASH HELMETS NOT PROVIDED.

Available for PC, Amiga. PC screen shots shown.



EUROPRESS
SOFTWARE
CREATIVE LEISURE

Europress Software, Europa House,
Adlington Park, Macclesfield SK10 4NP
Tel: 0625 859333 Fax: 0625 879062

DREAMLANDS

Do you play full pricers all the time? Well, now you can just wash and go with this marvellous three-in-one compilation bundle from Silmarils



Storm Master

This is perhaps the weakest title in the compilation and somewhat pales when compared to its bundle partners. In this arcade/strategy game you get to harness the power of the winds that's begging for a schoolboy-type pun in the land of Eolia as you strive to become the Storm Master.

Eolia is in constant conflict with its twin island, Sharkaania, where the winds are the masters of natural harmony. The reason for the war has been forgotten long ago, so you'd think they'd just shake and make up, but that wouldn't really make a good

computer product.

You have been appointed by the Council of Seven to take upon the task of Grand Magister of Eolia who previous applicant was viciously murdered only

days ago. Your goal is to loot and destroy the seven enemy cities and thus cause the fall of Sharkaania, but the only snag is that your enemy is trying to do the same to you.

Although it is an arcade and a strategy game, the emphasis is on the latter. The graphics are adequate enough and the sound is reasonable. If you like this type of game then I suppose you might have already bought it, but if you haven't then you'll be satisfied with it as the compilation.

If you don't like this type of thing then there's no harm in chucking it straight in the bin and concentrating on the other two for superior products.

VISION	●●●●●●●●
AUDIO	●●●●●●●●
DIFFICULTY	●●●●●●●●
LASTABILITY	●●●●●●●●
OVERALL	65%

Ishar

Ishar is regarded by many as one of the finest RPGs you can buy for the Amiga and was given generous marks by various computer magazines. This Silmarils adventure is heavily influenced by Dungeon Master, but that isn't such a bad thing.

The graphics are perhaps some of the finest seen in an RPG and really give the whole product a polished and professional look.

The action centres around the exploits of a band of five brave and heroic adventures as they try to kill a shady and powerful figure called Krough.

Krough, who has slowly grown rich

and powerful and built a temple (the Ishar) on the Kingdom's borders, threatens the world of Kandoria. The world has decided that you and your band of warriors should rightfully dispose of him.

Ishar - Legend of the Fortress boasts over 100,000 locations and hundreds of enemies and characters. The game uses a flexible, uncomplicated and user friendly control system which makes it simple and fun to use.

This is a truly great adventure and one that any half-decent RPG fan could not do without. It may look and play like Dungeon Master, but Ishar is terrific in its



own right and is by far the best piece of software in this Dreamlands compilation. Ignore it at your peril!

Transarctica

It's not every day you get up out of bed and find that the planet Earth has been completely frozen over! Well, that is what has happened in Transarctica. The sun can no longer be seen and has become a mystical heavenly body.

Apart from the re-emergence of the woolly mammoth, the only means of transport is the steam train. The Viking Union have complete control over the immense railway network and thus they monopolise all means of transport, giving them unquestionable authority.

You play the part of Chief of the Ambivalents, a set of curious beings who seek out the old myths of the sun. Your mission is to find a way to restore the sun to the world.

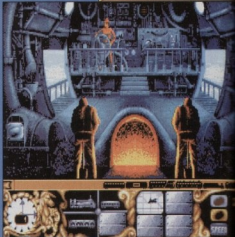
The Viking Union is none too pleased about this fact because if the sun reappears they'll lose power and a whole lot of money to boot. The Ambivalents' greatest victory to date is the theft of one of the Viking Union's greatest trains, the Transarctica.

To progress successfully you must build up the size and strength of the Transarctica. Additional wagons can be bought and extra money can be gained by trading. You must also avoid the bottle trains of the Viking Union and other hazards such as wolves.

Transarctica is really a trading game that contains only a small hint of arcade action. The graphics are excellent and the sound is adequate enough. I guess that if you like trading games then you'll love Transarctica. It is well worth spending a few hours on and is a worthy inclusion into this compilation.

VISION	●●●●●●●●
AUDIO	●●●●●●●●
DIFFICULTY	●●●●●●●●
LASTABILITY	●●●●●●●●
OVERALL	82%

Publisher ▶ Daze
Developer ▶ Silmarils
Disks ▶ 5
Price ▶ \$29.99
HD Install ▶ N/A
Size ▶ 4 meg



JONATHAN MADDOCK

Originality. A word that doesn't get used very much when describing the state of today's computer games. In just one year you might only get a handful of software that could call itself original.

Apart from a selected few, almost every game that is currently sitting on the shop shelves can be instantly compared to another product.

It now seems that game designers are looking back to when computers were new, fresh and waiting for ideas. Take a look at the evidence.

Overkill is a game so like Bubble Bobble that somebody somewhere should be suing somebody else, but it is also a brilliant piece of game design. It's gone right back to basics with simple gameplay and playability, enhancing the original idea via the use of improved graphics and sound.

The same goes for D-Hero, Granlin's latest shoot-'em-up extravaganza which more than places a nod and a wink in the direction of Z-Out and R-Type. The old style game is back in business and Mindscape are about to prove it with their latest release, Overkill.

Let's not beat about the bush. Overkill is Defender with knobs on. Defender, for those who don't know, is a game whereupon you piloted a spaceship around a screen which scrolls horizontally. You "defend" a number of men who are being accosted by several nasty looking aliens.

Overkill is along a similar theme, but has been updated and enhanced for the 90s thanks to the increase of quality in the graphics and sound departments.

You progress towards the centre of the solar system by eliminating all alien resistance on each planet. Your ultimate goal is the Enemies Fortress Planet, orbiting nearest the sun.

A number of Trilithium Crystals have been scattered about above each planet. Aliens will launch dangerous drones in an attempt to collect the crystals in order to transmute into even more deadly and menacing aliens.

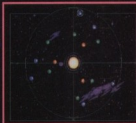
However, help is at hand in the form of support troops who are capable of blowing up the



The beginning of Overkill and your ship is dropped off by Space Astro-Taxis!

The return of the classic shoot-'em-up. Is that good or bad news? Mindscape obviously think it's good because they've just released one...

OVERKILL



The solar system map where you get to choose which planet you want to conquer



The second level and you encounter some wiggly snake-type things

The Overkill Stunt Team swings into action. First they jump out of a spacecraft at 1,500 mph, then they parachute into a war zone that comes complete with missiles and everything!



crystals using deadly Helium mines. Once a crystal has been destroyed, the trooper will await your return in order to be stocked with a new mine. To do this, you must fly your spaceship at the trooper as he leaps in the air.

Once he has caught hold of your ship he will be restocked with a new Helium mine and can continue his destruction run. All you have to do is simply return him to the ground and the nearer a Trilithium crystal, the better!

The joystick controls your direction of flight and the Fire button unleashes a variety of laser beams, all of which can be powered up at the enemy. In addition, you have a limited amount



Alien beasts at 52 o'clock! OK, Squadron Leader Squiffy Hatpants here! I'm going in for King and Country, see you back in Blighty for tea and cakes!

of Antimatter shield of your disposal. Hitting the spazzbar will activate and deactivate the shield. With the shield on you will be completely invulnerable to alien attacks.

Once a planet has been cleared, you are presented with a map of the solar system. By using the joystick you have to guide the cursor to the next planet you want to conquer. You start the game with five ships and a small amount of shield. An extra ship and extra shield are awarded every 25,000 points.

That's basically everything you need to know simply because Overkill is perhaps one of the most uncomplicated games you've ever likely to meet. For the moment forget about the comparison to Defender and let's concentrate on the actual game itself.

Overkill is an appropriate name for the game because there are loads of enemies to kill and at times there are perhaps just too many to cope with.

The graphics are particularly impressive with alien guts flying around the screen in abundance plus there are some psychedelic introduction screens to boot (yeah man!).

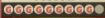
The sound is plentiful with loads of swooshes, blasts, explosions and a couple of sound samples placed here and there. Playability wise you can't go far wrong with this intense shoot-'em-up and it's no oddball that it should have a government health warning placed on it.

The only slight problem is the fact that it is a Defender clone and the people who like to keep an eye on those pennies might not want to splash out on it.

Overkill has great graphics, excellent sounds, a wealth of playability and a copious amount of addition. What more do you want from a piece of computer software? A highly recommended blast from the past updated for the 90s.

JONATHAN MADDOCK

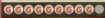
VISION



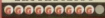
AUDIO



DIFFICULTY



LASTABILITY



Overkill leans a little too much towards Defender for my liking, but does contain superior graphics and sound. Mindscape have created an easy and fun to play blast-'em-up.

88%

Publisher > Mindscape

Developer > TWB

Disk > 2

Price > £25.99

HD Install > No

Size > 1 meg

BRUTAL FOOTBALL



FOOTBALL WITH A NEW SET OF RULES. NO RULES!

Do you like hard action but reckon that American Football is for granny's tea party? If you do, then Brutal Football is for you.

Grab that ball, stomp the other guy and run boy run cos you'll be lucky not to be skewered. The object: put the ball in the goal. Now you do it is up to you.

Enter the slambang world of Brutal Football where heads will roll and where injury time means just that.

- One or two player game
- Four breeds of rock hard player
- Head to head, all out combat
- Masses of pick ups
- Laughs. Blood.

90% AMIGA COMPUTING

"BRUTAL FOOTBALL IS FIRST RATE..."

A500/600/1200 & IBM PC

November 1993

Amiga CD32 1994



Millennium Interactive Ltd
Quern House
Mill Court
Great Shelford
Cambridge CB2 5LD
ENGLAND

The CHEAP seats

Skint? I bet you are, so why not take a peek at all these latest budgets, rounded up and reviewed for your deliberation...

The ancient castle of Nottingham has been taken over by the evil Sheriff. Higher taxes, harsh punishments and gold-hungry merchants are making life hell for the local peasants. You must take up the role of Robin Hood, and recruit and direct your band of Merry Men.

That's the low-down for this vastly underrated isometric adventure originally from Millennium. The game uses a unique real-time adventure

Robin Hood Kixx XL • £12.99



ture system which can all be controlled via the use of some icons and the mouse.

It is completely open-ended. You are free to do anything you like, whenever and whenever you want. If you're really lazy, you can simply do nothing, but hey that's not really the point of the game, is it?

The other characters all move

about independently and have little lives of their own. You can talk to these other people or just listen in on conversations, thanks to the real speech interaction feature.

I have always liked Robin Hood and am surprised that many software buyers didn't actually realise how good it was. The graphics are small, but well defined. The sound is atmospheric with a few choice sound effects dropped in here and there.

The gameplay is its best feature, though, and you can spend many hours just exploring Robin Hood's world and having fun at the same time. If Robin Hood passed you by when it was released in 1991, don't let it pass you by in 1993, especially at this bargain of a price.

Small icons but great gameplay

GAMER GOLD



Nowadays there isn't a day that goes by without the mention of a brand new all-singing, all-dancing modern hi-tech flight sim. Due to modern technology, wars are almost all fought via computers, especially where planes are concerned.

All you have to do is get in your cockpit, take off, press a few buttons and Bob's your uncle - you've blown up your enemy tar-

Knights of the Sky Kixx XL • £16.99



Dogfighting like it used to be

get from miles away. It didn't used to be like that, though. In ye olden times pilots depended on their flying skills to stay alive, as is very well demonstrated in Knights of the Sky.

You get the chance to fly every major fighter that was used in WWI (over 20, in fact!). There were no radars or missiles in those days; you were sat down in an old heap of a plane with a compass in one hand, the yoke in the other, your finger on the trigger and a pair of naff leather pants wrapped around your legs.

In Knights' you get the chance to play either the part of Tommy or Jerry. You can try your hand at one of the hundreds of missions available including ground support, bombing and escort duties, or you can take to the skies in a head-to-head

GAMER GOLD

dogfight with an opposing 'ace' pilot.

Graphically Knights is fantastic, with 13 dazzling 3D perspectives to choose from to watch your victory or failure in the air.

The gameplay is basic (as you'd might expect) but still retains a wonderful sense of playability and a freshness which makes the so-called modern flight sims look rather stale.

Flight fanatics looking for something different should seriously consider buying this brilliant sim.



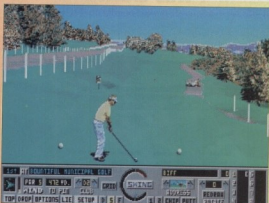
Links • Kixx XL • £16.99

Over the years there have been many golf games. Some have been very good while most have been bloody awful. One thing you can say about all of them is the standard of graphics has never been particularly good. Our PC-owning chums have had it good on that front with realistic digitised graphics and sound.

Links on the Amiga, just like its PC counterpart, contains some stunning graphics with actual digitised trees and buildings and an incredible 3D contoured terrain.

Game designers have tried to make it the most realistic golf game ever. Accurate physics of flight and impact of the golf ball have been included into the program. You can adjust the golfer's stance, swing plane and just about everything down to the colour of your tee.

That all sounds well and good, but unfortunately it is just too realistic and this makes the gameplay rather dull. The graphics, because they are digitised, take ages to update and this just creates boredom. I could recommend this to the dedicated golf fan, but everyone else should stay well clear.



Very realistic, but at the expense of speed

W hat can you say, we've had them all! Ninja ants from another dimension, frogs with superhero-caped powers, fish that are secret agents and now a bloody chicken. Life in the ever-surreal computer industry gets stranger still.

It's got to be the stage now where this reviewer is no longer surprised when the nutter sits next to him on the bus asking if you've seen his camel, because you probably have. You just nod and exclaim "dookey", without so much as a shrug of the shoulders.

What some would describe as hallucinations are passed off as normal day-to-day occurrences. A six foot squirrel? No worries. A crocodile in a morning suit? Doesn't raise a second glance. But a chicken called Alfred who enters a by-election?

Why is it called Alfred? To me that seems an odd name for a chicken. Never mind the fact that this chicken had political aspirations - why Alfred? Chickens are called Clucky or Chucky not Alf.

At the end of the day however, if we spent all day pondering over such dilemmas then nothing would get done and we'd all end up with fried brains, so without further ado let's get into the plot.

The plot's pretty simple. The Meka-Chickens have whisked off with Billy Egg and his brothers. The sole purpose of their headish egg napping is to carry out their devilish cloning experiment.

FEATHERED FRIEND

Only one man - well, chicken - can save the eggs, and that's Alf. As the only feathered friend with a bionic beak, Alf has to battle through 11 levels of platforming mayhem.

As Alf picks his way through the various levels he is rewarded for his bravery. For instance, releasing all the balloons on each level takes the feathered one to Mr Peck's space lab where he is given extra points.

Also, if Alfred keeps a beady eye out and collects a hundred of the many bonuses which lie around, Mr Peck rewards him with an extra life.

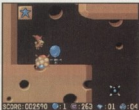
Not only does the tandoori one have bonuses to aid him, there are a series of devices to give him a hand. Springs, for example, propel Alf to a higher part of the stage - when he uses

ALFRED CHICKEN

Take control of the fowl on the prowl in Mindscape's latest cluck-tastic egg-stravaganza. Let's find out whether Alfie's a prime Bernard Matthews bird or a sparrow's ankle

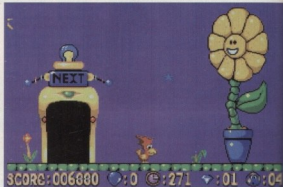


The Meka-Chickens steal the eggs in UFO egg-slushe



Why did the chicken cross the mouse? To get at the balloon, silly!

these you could call him a spring chicken (ooh, rotten egg pike - Ed). There are also buttons to peck which access other parts of the level, and ice blocks which can be pecked for similar outcomes. Unfortunately for Alfred, there are also quite a selection of enemies within the employ of the Meka-Chickens and most of them are pretty nasty. These include underwater whales, a Jack-



Alfred and the Vitalite sunflower decide to turn Alf into a butterball chicken

the-bomb who fires bombs out his mouth, a bitchy ladybird which can't be trusted and a whole host of others.

Looking on the plus side, Alfred has a fair few power-ups of his own to collect. Keep your eyes open for a can o' worms which gives Alf a spinning, monster-killing worm, and wrapped-up premiums which make the breasted one invincible for a while.

Of course we can't forget Alfie's own bionic beak which, when put into peck mode or used in a nose dive, is very effective against the foes.

As platformers go, Alfred Chicken ranks quite highly. He's definitely in the size-one-free-range-ranking. The graphics are slick, well animated and cartoonish rather than cutsey.

There's also a fair splattering of humour clucking around. For example, when Alfred meets an untimely roasting at the hand of the Meka-Chickens, he explodes into feathers which then proceed to float to the ground.

Alfred Chicken has a great deal to offer gamers whether platform fans or not. It's far better than most of the average chicken-run-of-the-mill stuff

that gets pumped at us daily. No-one can excuse the silly name, but don't be put off - it's a well-polished egg-strengthened addictive title that'll have you crowing and clucking until dawn. It's a rooster.

SIMON CLAYS

Wishin' I was clucky



Score

Number of balloons to collect

Bonus time remaining

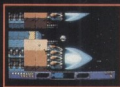
Number of diamonds remaining

Number of Alfreds remaining

VISION	●●●●●●●●●●
AUDIO	●●●●●●●●●●
DIFFICULTY	●●●●●●●●●●
LASTABILITY	●●●●●●●●●●
Alfred's the cock with the last, the chicken who's kickin'. Lots of platform fun and frolics for all budding Rhode Island Reds. Alfred's tastier than a McChicken and will last a lot longer.	86%
Publisher > Mindscape Developer > Twilight Disks > 1 Price > \$25.99 HD install > N/A Size > 1 meg	

Fresh from the vaults of total play-ability comes this unique reprise of the classic shoot 'em up. Featuring the fastest scrolling and most detailed graphics that the Amiga has ever seen, pit your wits and reflexes against fleets of Leviathan spaceships as your Manta swoops low and leaves a trail of mayhem in its wake.

URIDIUM II



"It's absolutely stunning with superb graphics, marvellous effects and simple-as-pie gameplay."
Amiga Action.

"Uridium II is fantastic. You can take our word for it... Smashing!"
Amiga Format.

"All in all, Uridium II is shaping up to be one helluva game."
CU Amiga.

GRAFTGOLD
Computer Software

**FOR THE AMIGA 500 (1 MEG), 600, 1200 ENHANCED.
UTILISES MOST MEMORY UPGRADES. SOON FOR THE AMIGA CD 32!**

C1, Metropolitan Wharf, Wapping Wall, London E1 9SB © 1993 GraftGold. Published by Renegade.





You can tell it's going to be one of those alien shoot-'em-up frenzy days when the sky is this grey

As marketing strategies go, Team 17 seem to have the gaming industry sound - take all your old products and, after listening to the criticism of the reviewers and gaming public, revamp them and toss them out at silly prices.

If you examine the budget charts of recent months, you'll see a whole stream of Team 17 products: an enhanced version of Project X, Alien Breed Special Edition and a remixed Assassin have all sold in big loads.

They've also found tremendous success with their selection of recent cheap priced new releases like F-17 Challenge and Qwak. Both of these products featured smart play at less than half the price of other software companies.

This is as neat a juncture as is necessary to meet their latest product to receive the Team 17 energy injection.

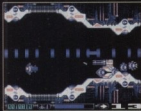
Cardixxx was originally released by Electronic Zoo some time ago, receiving mixed reviews and featuring life in the way of true game action, the boys from Wakefield saw potential and have given it the treatment.

Cardixxx is a no nonsense blaster set strangely enough in space in the future. Taking on the role of Pope (a hardened Han Solo type astro-jock), you blast off from the surface of the planet surface to take on the might of an alien fleet. The scales are tipped heavily out of your favour, but if anyone can perform miracles then it's you - or so the manual would have you believe.

After a short intro sequence, it's straight into the action. Cardixxx is an horizontal bi-directional scroller that moves at a fair old rate of



Good, these bloody worms get into every crack



You big bully in your end-of-level type tank. Why do you have to pick on me?

CARDIXXX

...no holds barred blasting as Team 17 revamp to good effect

knots - 50Hz to be technically correct.

You respond to the enemy via your on board droid who passes on audio messages informing you where the exactly the foe are. There's also a nice little graphical arrow which points you in the right direction in case you're like me and can't tell your right from your left.

Once you're in the thick of it, not only do you have to use your skill to knock those nasty, bulky 'gang up on an little space ship would you' aliens, but it's all against the clock.

If you take too long over the task in hand it's curtains for you and your ship is destroyed. Unlike many space shoot-'em-ups where your ship can absorb only one enemy shot or be involved in one collision, Cardixxx



Yes, I know it's paused. That's because I pressed 'P'

is made of sterner stuff.

Although your spaceship has a finite amount of energy, you can take a number of hits, the damage being reflected by an ever-diminishing energy bar.

Once you've seen off various types of comrade and other sucklike aliens, there's a mix of a level guardian to contend with.

Also at the end of each level there's a special Deep-Space bonus zone where the aim is to eradicate as many of the pesky vermin as possible in a given time.

Your ship also has the ability to have its weapon system upgraded,



And the final shot 'You only pause while you're winning'. The saga of the games but-on continues, but remember kids, keep your pants off



which is quite useful, as many of the nasties require special hits or large scale damage.

Along with the power ups, there are also bonuses in the shape of extra time which prove very handy as time is extremely tight throughout. On the whole, Cardixxx isn't a bad update into the nineties, although it's not the best thing to come out of the 17 stable. The graphics are presentable and pretty smooth, but they're never going to make you dust over your mother like Project X did.

However, for the budget price of a tod under a tenner I don't think anyone's got any grounds for complaint. Cardixxx plays fairly well and could never be described as a slow paced affair.

In fact, if there's one slight criticism it's a little too fast and the control never enables you to master your ship motionless. Attempting to slow results in it inverting to travel in the opposite direction, which can be quite annoying until you master your skill control.

Cardixxx reminds me very much of the shoot-'em-ups from the eighties; straightforward, no holds barred blasting with few complications and strategies. Though it's not their best effort of late, for a tenner it's got to be worth it.

SIMON CLAY

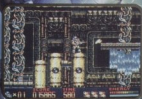


The big fight between your ship, the level guardian and the more infamous mean games ship

VISION	●●●●●●●●
AUDIO	●●●●●●●●
DIFFICULTY	●●●●●●●●
LASTABILITY	●●●●●●●●
Cardixxx is nothing new, but it never stood up and said it was.	70%
Very straightforward blasting mayhem frenzy and a decent cheapie to add to your shoot - 'em-ups handy when life becomes a drag and you're feeling psychotic.	
Publisher > Team 17	
Developer > Team 17	
Disk > 1	
Price > \$9.99	
HD install > N/A	
Size > 1 meg	

TURRICAN 3 WILL TAKE YOU ON A JOURNEY THROUGH THE MOST DEMANDING LEVELS OF ADRENALIN-CHARGED ACTION EVER SEEN ON THE AMIGA.

TURRICAN[®] 3



THE ULTIMATE ARCADE EXPERIENCE!

features include:

15 HUGE Levels

4 Difficulty Levels

All Amiga Graphics Modes Employed

50 Frames Per Second Scrolling

28 Tunes and 88 Sound Effects In Dolby Surround™

Multiple Weapons Systems And Power Ups

FOR ALL AMIGA'S (inc 512K). SOON FOR AMIGA CD³²

FAE03



©1 Metropolitan Wharf, Wapping Wall, London E1 5SS © Rainbow Arts 1993 / Factor 5 1993. Published by Renegade



Zool is perhaps one of the best platform characters that home computer gamers have seen for many a year. Just like Nintendo has Mario and Sega have Sonic, Zool has become the standard icon for the Amiga.

Zool arrived at just about the right time. Platformers were slowly losing their appeal and people were getting tired of cutsey game after cutsey game. The one in the black silk pyjamas then exploded onto the scene and changed everything for the better.

OK, so the game was hyped to oblivion and looking back it was perhaps a fairly bag-standard platformer, but it contained an copious amount of style and appeal of which the games buying public had not seen since the release of Rainbow Islands.

The ninja from the nth dimension has become increasingly more popular and the question of a sequel has never been in doubt. Having completed his journey through the six levels in the original, Zool has to travel through a further massive nine levels.

These include Swan Lake, Bulberry Hill, Tooling Cannon, Mount Koz, Smoking Pass and more. All of the levels are going to be much larger and will feature a number of different ways of completion.

The general feel of the gameplay is very similar to the first incarnation, but the time limits have been made even tighter so that players won't have time to dawdle.

There will also be mega boss items in some of the harder-to-reach areas of each level, these being worth maybe 20 times as much as a normal collectable and will be a genuine reward for the players who have skillfully negotiated the various hazards put in their way.

The enemies are once more related to the particular worlds they live in. For example, Swan Lake has a myriad of bird-like



ON THE Drawingboard

He's back! The ant-like hero who adorned many Amigas last year has returned and this time he's brought his woman and dog with him. Jonathan Maddock takes a second look at the alien with attitude

ZOOL 2



critters, all intent on your swift demise. This time, however, some of the enemies will need more than one hit.

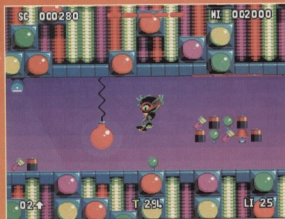
For example a puny sparrow on the Swan Lake level may only need to be zapped

once, but a manic eagle may need three or four strikes.

The level guardian will always be Zool's arch-enemy, Mental Black, and he'll appear at the end of the final level in each world. Starting off in his normal cube-like state, he'll transform into a

deadly killing machine that has some relevance to the level.

One such transformation sees Mental Black take the shape of a state-of-the-art jet fighter in Swan Lake World, whereby he showers Zool in a deadly hail of missiles and bullets. Many more



...informed people out there think that computers are just for rough life boys. Well this is neither case because girls are usually becoming part of the computer revolution and Gremlin have seen fit to include this fact in Zool 2.

You can either play as Zool or if you see a friend fancy a bit of a gender change you can take on the role of Zoon who is Zool's girlfriend. Zoon is able to spin and break through weakened floor coverings, but will perform almost identically to her alien boyfriend.

Zool has new and special abilities, including expert climbing skills. He can now shin up walls and leap from one vertical surface to another while performing death-defying stunts.

Another new character is Zool's pet dog called, ahem, Zoon. Being a dog of the alien variety, Zoon has two heads. One head is stupidly itself, always on the look out for food, dribbling everywhere and generally annoying everyone.

The other end of the creature is highly intelligent, if somewhat disgruntled at having been created at birth to such a half-wit. Gremlin's latest character is still under going changes, so god only knows how he'll be able to help and what he'll

turn out like. One suggestion is that Zool must rescue Zoon from a hidden area on each world. If Zoon is saved he joins Zool for the confrontation with Mental Block at the end of world. Whether or not this will be implemented is still up in the air.

There will also be bonus levels like the shoot-em-up section seen in Zool 1 which are going to be packed full to the brim with goodies and bonuses. Gremlin are still working on various ideas for the sequel. One idea being Zool or Zoon battling with Mental Block, maybe rolling around in a metal ball as seen in the Gladiators television programme.

As well as gameplay getting a re-hash, the graphics and sound have both received a thoroughly deserved make-over. The Zool sprite and other characters have been made a lot cuter and friendlier than those seen in the original.

For the forthcoming sequel there will be a different tune for each world rather than the just the one playing all the way through the platforming romp. Other new tunes will be added for the front and back end sequences. The option to choose between music and sound effects will remain.

Pat Phelan, the man responsible for the music featured in the first incarnation of Zool has once more taken over the reigns for the sequel. Pat who has worked on Lotus 3, Nigel Mansell and Premier Manager 1 and 2 explains how he came up with his musical masterpieces.

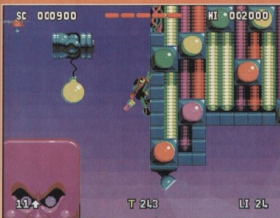
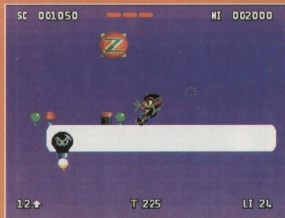
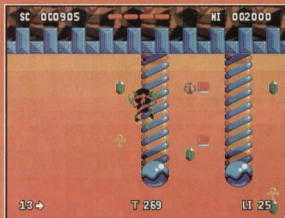
"The music is generally one of the last things to go in. I'll spend maybe a couple days playing the game to get a feel for it before talking to the programmers."

"I will then come up with a tune that I think will suit the character. It's usually the pulse that comes first and then that becomes the game's title track. I then bounce various ideas in and out of the first track to get some new, but similar pieces.



Eventually, I'll have an entire suite of music for the game."

So, there you have the low-down on Zool 2 which will become the number one game this Christmas (now there's a bold statement!). Forget about putting Jurassic Park on your list to Santa because the Amiga's best platform character is back with a vengeance.



About a year or so ago, D/Generation hit your Amiga with a puzzle game called *Thru*. Well, now the platina new word for puzzle game action concept - like it's back with enhanced colour and chunkier sound.

You play the part of a postman come delivery boy, who has the gross misfortune of handling a package for a certain Mr Derrida.

Now, Mr Derrida is a top boffin working for Genoa, an organisation specialising in artificial Neogen organisms - genetically engineered lifeforms.

Unfortunately for some unknown reason the Neogen lifeforms have gone hay-wire and are destroying all life within the building.

It's at this point that you enter the scenario. After a brief jet pack journey across Ireland, the Uralis and the entire length of Asia you arrive on the top of the office complex in Singapore - you've got a bloody good road map.

Landing on the roof of the building, you are surprised to find that nobody from the company is there to greet you. Entering the building your concern deepens when the security system tries to kill you and you find the mechanist covering behind her desk.

She tells you that the package you've been carrying is of grave importance to Derrida and that it could be of grave importance to the whole of mankind's future - pretty important

job on delivery boy's wages.

The main reason for this is the D/Generation. The A, B, and C generations are far simpler Neogens. However, the D/Generation project is an extremely advanced form of artificial life. It's capable of disguising itself as anything and has a hard dural layer which renders it practically indestructible.

Beginning with five lives it's your humble task to work your way from the 80th level up to floor 90, where Derrida is waiting. On your travels you encounter various forms of the generation which go together with such

things as security doors to compose the puzzle aspect. En route to find the professor you also find frightened employees who you must attempt to rescue.

D/Generation is a large and interesting title. The puzzles have a good mix to them so that you never become bored and because the logic involves using a laser, it'll keep kill frenzy which happy to.

As for as the CD32 enhancements are concerned, graphically the whole game has more clarity and looks brighter.

The sound definitely benefits

from compact disc quality

and gives the whole scenario a real mood.

D/Generation doesn't push the barriers of the CD32 that far, but at the end of the day it's a fairly polished, playable product

Overall:
82%

CD 32 roundup

Let's have a sheeny, shiney, digital see your face in it's reflection look at a couple of new releases for the CD32

Oscar • Flair Software

GAMER GOLD

acter definitely falls under the category of catty, although defining which area of the animal kingdom he hails from is beyond me. He resembles a chipmunk with bits of human in him.

Anyway, whatever Oscar is or isn't, he loves the cinema. The show starts on one particular visit to his local multi-screen. The movies that are showing are the various worlds that Oscar must explore.

The CD32 version of the title features nine levels, two more than its A1200 counterpart. These vary from a junior level through to a Horror Channel and a Sci-Fi Encounters level. Oscar has the extra level of the extra level, but does have a very little to do with movies, but does have a strong connection with Commodore.

The aim of each of the levels, which comprise of three stages, is for Oscar to collect a number of miniature Oscars.

Once he has completed this mission and collected the special letters which are scattered around he can move on to the bonus/buggy levels.

There are loads of nasties and power-ups which add to the fun and thrills. In many respects, Oscar has all the classic features of your platformer, but for one exception - it's better, both in graphics and playability, than the likes of Mario and Sonic could ever dream of becoming.

I could go on and on about the graphics, the samples and the sound in general. My advice to you is to go out and buy it. It looks and plays beautifully.

Overall:
91%

Oscar gets caught by the ghosts in Texas Chainsaw Massacre score

Along with Diggers, Oscar is the other title to appear in the launch bundle for the CD32. Now while Diggers set a president for size, sound and in-depth play, Oscar starts to show what the CD32 can do in the graphics department.

Strangely enough, in Oscar you play Oscar, and the plot centres around the film industry's own accolade to its own - the Oscars. Oscar is

Oh, I do like your carpet



Our hero gets frazzled while yet another employee sits down on the job

Oscar does his Noel Edmonds outfit in this gameshow "getcha" stage



....MERRY CHRISTMAS TO ALL OUR CUSTOMERS OLD & NEW....

SCALABLE FONTS

Extra Fonts For : Pre-Page 2.1, 3, 4,
 Copy III rel2, PageStream, Wordworth 2,



**Choose Your Own
Disks From Just
£2.50 a Disk**
Select Another 3 Disks FREE
For Every 10 Purchased

B&T Fonts
78, Foresters Tower
Woodfarm Road,
Headington,
Oxford,
OX3 8QA
Tel. or Fax

Choose Your Own Feet
From Our Catalogue
From Just 30p each
Each Disk Has Its Own Printed Label
Listing The Feet On The Disk

PLEASE RING OR WRITE FOR YOUR FREE CATALOGUE

EdWord Professional V4.1

The latest release of the user friendly shareware text editor is now available. It will run on ALL Amigas (IWB recommended) and has been specifically updated to take advantage of WorkBench 2.0; although it will still function under V1.2 and V1.3. The latest version offers the new facilities...

ONLY
£10.00
inc. VAT + P&H

- [illegible]

Please make all Cheques/Postal Orders payable to : M.Reddy
Martin Reddy, Lossiemouth House, 33 Clifton Road, Lossiemouth, Moray, IV31 6DP

Premier Mail Order

Titles marked * are not yet available and will be sent on date of release. Please send payment / PO (made out to Premier Mail Order / Access / Visa No. and expiry date to: Dept AC68, 10 Tinkler Side, Basildon, Essex SS14 1LE Tel: 0268-271172 Fax: 0268-271173

Telephone orders: Mon-Fri 9am-7pm and Sat & Sun 10am-4pm. **We Are Open 364 Days A Year**

P&P and VAT is included for all UK orders. Please add £2 P&P for Europe and £3.50 for the Rest of the World. Next day delivery service available £4 per item

[illegible]

cheat mode

Struggling with this excellent adventure game? Look no further than this, the first part of a two-part guide to Silmaril's raging RPG

THE GAMER GUIDE TO



Irvan's Island

You begin very close to a fight - avoid this because otherwise you'll end up dead before you know it. Go west, then north. Enter the village. Play with the pump-handle if you like. Then recruit Kudac, pick up his possessions and kill him (nice, eh?)

Visit the two inns to recruit four characters (preferably, pick a scholar - Elandar, a magician - Zalaran, an archer - Fandhir, and a warrior). Buy a sword, a bow and arrows from the armourer and food from the shopkeeper to recover physical strength after fights.

Then go to the harbour (S-SW) and try to force your way onto the boat. You'll be taken prisoner and handed over to the village chief who tells you your mission.

Return to your starting point: S then E. Kill the three thieves and find the dead woman. Pick up the pendant. Eat some food if necessary (for physical recovery) then return to the village to recruit, and buy helmets and shields.

Go extreme East into the forest, then north to pick up black and white mushrooms, then dandelions (surrounded by stones) to the extreme north. Fight the wisps. Enter the forest clearing on the south side, kill the arch and the thief (using arrows if possible). Pick up the necklace.

Return to the village, hand the necklace to the chief. Recover the boat. Eat, sleep, buy arrows, arms and food. Go to the harbour, select the town landing-stage.

Zach's Island

Go north through the town to the library at the extreme north. Pick up the fortress parchment. Kill as many enemies as possible (to gain money and experience).

Buy arms, helmets and food. Recruit if necessary, eat and sleep to recover physical strength, then return to the harbour in the direction of the fortress.

Akeer's Island

the wall on the right trying to keep moving east all the time. Fight the skeletons. There's a passage to the south - here you should pick up the treasure in

the cul-de-sac and the south end and the skull in the cul-de-sac to the east.

Leave the passage again, continue east, then south. You'll come to a large room. Take the extreme SE, then S, E, and follow the corridor to the north to activate two handles - one on the right-hand wall, one on the left.

Continue due north into the passage, follow the corridor into the large room. Activate the handle on the wall to the north. Leave the passage again, take the extreme SE, follow the corridor and pick up a skull in the cul-de-sac. Re-enter the corridor with the handles. Walk round the W wall.

On the other side, enter the room, and pick up the treasure, skull and arms. Return to the landing stage. Return to the town.

Zach's Island

Buy fighting gear, arrows and as much food as possible, because big fights are coming. Buy two monk's habits and five fur coats from the clothes shop (just far from the harbour, in a road leading to a little square to the north).

Go to the library. Examine a parchment on potatoes. Go to the bank (W of the library), enter the street with guards. You must kill all the guards in one go (you can't make a return trip), using arrows and spells. Take the door opposite. Pick up 100,000po. Deposit 10,000po in the bank (on the other side).

Go shopping. Buy a magpie, a monkey, an eagle and a parrot from the pet shop (between SE of the town). Opposite is a super-armourer;

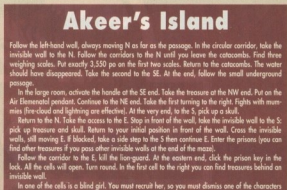
depending on your budget, buy arms, helmets and shields. Go down to the south, after the bend. Buy five ropes from the shopkeeper.

Move W, buy potions for the "troublesome priest" (Humbolg) and "Ent Reviver" (Jabblu). Continue to the W, and you'll come to three cross-roads. Go N, then W, then first E. Kill the giant guard (he's difficult to get rid of). If necessary, regain strength because there are more fights to come.

Enter the Blue Velvet night-club (only open at night). You'll get thrown in prison. Release the magpie through the bars. Pick up the key. Open the cell. Put on the five monk's habits. In the fortress take the passage (open between midnight and dawn).

Pass the monk. Enter the sacrifice. Recover the prison key from the monk's belt. Leave the passage





again. Find the invisible wall and cross it (where one of the characters notices a draught). Leave the prison. Fight the guards. Return to the harbour. You will need at least 10,000po and an iron shield. Take the boat for the island where you started.

a cut-de-sac. Prepare the Humbug potion and give it to him. Pick up the tree island parchment.

Return to the harbour. Select the tree island. If necessary, make a return trip to the town for "repairs".

Irvan's Island

Thorm's Island

Go extreme E. Follow the E coast. Find a magician. Give him 10,000po, then send out the eagle. Pick up the mountain parchment.

Return extreme W, along the coast. Find the standing stones, continue to the W end. Pick up the relic of the foot of the standing stone. Golem wakes up. Kill him (most spells won't work on him). Turn round and fight Golem a second time.

Return to the harbour. In the direction of the mountains, take the landing-stage to the S.

Pick up the pendant recovered from the dead woman. Take the crossroads to the left, then to the N, and second on the right. At the end, find an end. Prepare the "Xabbu" potion and give it him to drink, pick up the pendant.

Visit the huts; two open huts give various information. Return to the harbour, take the extreme E. Fight with Evoks. At the end, pick up the relic. Return towards the harbour. Take N-E-N-E, follow the road: at the end is the iron shield. Pick up the magic shield (protects against fire).

Turn round. At the crossing, go N then E and first N. Fight with trails and aggressive eagles, to arrive close to the dead woman at the end to the W. Collect the key to the town hall from around her neck. Return to the harbour. Hurry.

Jon's Island

Zach's Island

In the mountains you must put on the fur coats (take off armour) and attach the ropes to avoid falling. Move E. Pick up the cask in the snow. Set off again in the opposite direction following the mountain road along the precipice. Go into the mountains. Find a rhinoceros. Kill it and take its horn.

Return to the landing-stage. Select mountains, landing-stage to NW. If necessary, make a return trip to the town for "repairs".

On leaving the harbour, travel E. Follow the coast, then take the passage to the W. Fight the two giants. Pick up the living sword in a mountain hollow. Leave the passage again.

Continue northwards. At the end, find a priest in

Go to the town hall (extreme N-W). Enter the town hall and pick up the idol. Go to the temple (W of the bank) and give the idol back to the monk. Pick up the Air Elemental pendant.

Go on to the bank and draw out money. Buy arms and food. Eat and sleep... Keep 7,100po, then return to the harbour. Go to the fortress.





**WHEN THE STREET JUST AINT
TOUGH ENOUGH...
GO PLAY IN THE PARK**

IF IT'S NOT JURASSIC PARK IT'S EXTINCT

**JURASSIC PARK
GAMEPLAY HELPLINE**

FOR A COMPLETE LIST OF JURASSIC PARK GAMES, VISIT OUR WEBSITE AT WWW.OCEAN-UK.COM. IF YOU HAVE ANY QUESTIONS ABOUT OUR GAMES, PLEASE CONTACT US AT THE ADDRESS BELOW.

CALL 0800 045454

OR WRITE TO: OCEAN SOFTWARE LIMITED, 2 CASTLE STREET, CASTLEFIELD, MANCHESTER, M3 4LZ. TELEPHONE: 061 832 6633. FAX: 061 834 0650.



**PC COMPATIBLES
CDI AMIGA**

**GAME BOY
SUPER NINTENDO**

**Nintendo
ENTERTAINMENT
SYSTEM**

SHAREWARE AND PUBLIC DOMAIN

Available Through
Your
Local Retailer



THE VERY BEST & LATEST TITLES

- Games • Utilities • Sound & Music • Demos • Graphics •
- Home & Education • Business & Applications • Fonts •

Call For Details of your Local Stockist
(0702) 603967

32 Southchurch Road, Southend-on-Sea, Essex SS1 2ND, England.

AMIGA insight

Expert views
on the latest
applications



Alexx
Alexx Goss presents a newcomers
guide to this powerful and flexible
programming and scripting tool
for all Amigas

156



Video
Adam Phillips looks at recruiting
your crew in this, the second part
of his epic serialisation of the
video-making story

159



Music
As a prelude to the silly season,
Paul Austin provides a concise
buyer's guide to the best of the
Amiga music software

161



Comics
Phil South looks at what
life's like on the Internet,
and asks a few questions
about FTP

163



Amos
How to use the Amos Sort function
complete with examples, and some
more coding widgets, from
Phil South

165



Publishing
What is a template and why is
it so important? Ben Pointer
investigates and draws his
conclusions

167

This is the Christmas issue, and no doubt, as in Christmases past, many new Amiga owners will join the fold. Since it is now almost impossible to obtain an Amiga without hearing something about ARexx (unless the only thing you do with your machine is play games), I will take this opportunity to present a general overview of the language, its history and its basic principles.

Obviously, in a small space like this, I cannot hope to convey more than an impression of the language, and newcomers wanting a more detailed overview should obtain an introductory book on ARexx, such as the one reviewed below.

Several aspects of ARexx have also been discussed in these pages over the last two years, and the editor has even threatened to put them all on a CoverDisk, so if you think this would be of help, why not write in and tell him?

First, a bit of history. The earliest form of ARexx was a language called Rexx. It first appeared in 1983, created by IBM's Mike Cowlishaw. Its purpose was to provide a good general-purpose utility language for IBM's systems.

Rexx was not originally designed to run on micros, but on large mainframe machines. Its design criteria were simplicity, practicality and usability.

Rexx did indeed turn out to be very simple and intuitive to use, despite its power and versatility. Its commands were English-like, and its overall 'feel' was even easier to master than Basic. It was also very good at han-

dling data, especially data in text form. Rexx, incidentally, stands for Restructured eXtended eXecutor - just in case you wondered! This mouthful simply means that it is an executor (a control language), it is extended (has many new features), and it has been redesigned for better program structure.

This was in relation to Rexx's predecessors, among them a simple language called Exec, which, of course, should not be confused with the Amiga's 'Exec' kernel.

Now, quite a few programmers took to Rexx, won over by its ability to make tricky and tedious jobs easy, and it became popular on many platforms. Yet all this was happening in the world of large machines and their arcane operating systems, and was of little, if any, relevance to the world of personal computing.

However, the popularity of Rexx would not let it stay confined to its birthplace, and eventually a few versions started to appear for the MS-DOS platform.

One of them, Personal Rexx, managed to attract a fair following, but even so, it was hardly a mainstream language; more of a little gem for those 'in the know'.

However, the first appearance of Rexx on a multitasking micro was due to a programmer called Bill Hawes, who had the foresight to see how well the Amiga and this new language could integrate.

His implementation of ARexx on the Amiga, appearing in 1987, won a good following, especially among more serious programmers who appreciated its chore-lightening effects.

However, it was still some time before Commodore acknowl-

Bill's vision

edged the value of this contribution, and included ARexx in the Workbench 2.0 operating system. By then, enough software vendors had seen the advantages of ARexx to ensure that most major Amiga products had an ARexx interface.

In the meantime, IBM had not failed to notice the potential of Rexx either. Its popularity on the

Personal Rexx also provided an interface through which external applications could use the Rexx language as if it was their own.

This was probably the dawn of automation interfaces in the ARexx style. It meant that software applications could now share a common, powerful script language, and no longer had to supply their own, often inferior versions.

It also meant that software designers no longer had to reinvent the wheel each time they needed a script language for an application, and users didn't need to learn a different language for every different program they used.

LESS EXPERIENCED

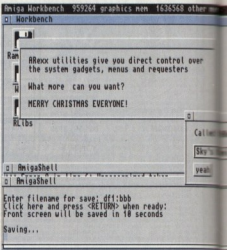
To get back to ARexx: I often cannot help feeling that one of the reasons that it still spooks less experienced users, is that it does so much.

After all it does four separate jobs, any one of which would be enough to rate it as a super-useful tool. ARexx does the jobs of a DOS enhancer, a typeless freemove utility language, a script language for applications and an interprocess communications system, all of which will now be examined in greater detail.

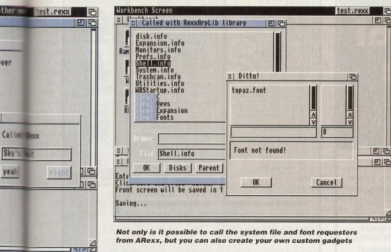
big machines led them to incorporate it into their OS/2 micro-computer operating system.

This is significant because OS/2 is a true multitasking system, like the Amiga's, and is in many ways superior to the hugely popular but awkward Windows.

In a sense, this justified Bill Hawes' vision of the language's potential. As OS/2 gains popularity, the Rexx family of languages could become quite important in the personal computing scene.



Speaking



Not only is it possible to call the system file and font requesters from ARExx, but you can also create your own custom gadgets



your language

Firstly, ARExx's job as a DOS enhancer. Have you ever needed an AmigaDOS command to do a special job, but all you could find was a very rough equivalent that didn't really meet your requirements?

Perhaps it didn't have the options you wanted, or only did half the things you needed? Maybe you tried to write an AmigaDOS batch file to automate a task, but turned grey trying to figure out the weird control structures? Did you wish there was a simpler way?

There is, and it is called ARExx! Because it can work together with AmigaDOS, it's easy to devise custom commands, based on existing ones. You do not have to duplicate effort, just add your specifications.

Should you want something flashier than the CLI interface, you can use special libraries to link to the graphical Intuition environment, and add your own custom requesters, menus and the like.

Also, unlike regular interpreters such as Basic, you do not have to load up the whole language every time you want to run a program; once loaded ARExx stays inconspicuously in the background ready to be used as needed.

But ultimately, the main reason for ARExx's success is our second task, its flexibility as a programming language. After all, the grammar of a language and its links to the host system are two separate issues, and any old script language could have been bolted on.

Several script languages are already in existence as part of software packages, and if you have used any of them, you will know how limiting they can be.

ARExx, on the other hand, has all the features of a modern high-level language, and supports modular and structured programming.

Let me stress here that ARExx is built for comfort, not for speed. The speed of ARExx lies, not in how fast it runs its programs, but in how fast it lets you write them.

ARExx does not have separate data types, so you do not have to declare integers, floating points or arrays at the beginning of your program.

Everything is treated as a string of characters, and this simplifies things no end – and not just for the beginner! ARExx also has outstanding facilities for handling tables and arrays, with minimal effort

on the user's part. Overall, it lets you approach all programming chores with a minimum of set-up requirements (for a detailed discussion of this, see the last two issues).

Some people feel that all this power can lead inexperienced users into pitfalls, but I think that this is far outweighed by the advantages.

Once they get into it, even people who have never programmed before are surprised at how much things they can do. ARExx will support rigorous programming just as well as "quick and dirty" hacks to get a job done.

Many applications can benefit from the addition of a script. If you have ever sat in front of a screen performing repetitive actions with a mouse, and wishing that you could go away and let the machine do the job, you can see the advantages.

CUSTOM COMMANDS

On the Amiga, the applications that make most use of ARExx are animation, graphics, modem communications and DTP. Obviously each application will specify its own custom commands – to simulate menu selections, for instance – and on the whole these will be different in each package and unrelated to ARExx. However, the control language that ties everything together (loops, IF statements, etc) is the same.

Finally, we have interprocess communication, which is the natural extension of scripts, and unique to the Amiga implementation. This allows programs to communicate with each other directly.

The best way to understand this is with some examples. A word-processor could control a DTP program, setting the text as soon as it is finished, a database could control some presentation software, giving impressive graphic updates of its contents, a modem could control a remote robot, and so on.

Well, I hope this has gone some way towards whetting your appetite about the ARExx beast, and maybe even given you some ideas for your own use. Thanks to the more seasoned ARExx users for bearing with me; we will recommence our more technical sorties from the next issue.

ARExx could be the Amiga's best kept secret. Alex Gian opens the lid on the language, its history and myriad of uses

All prices and manufacturers specifications are subject to change without notice. All goods are offered by use and not supplied on a full basis. Available on request. 15/02

The script is finished. Everyone whose read it has congratulated you on its originality and excellence. Questions fly back and forth across the neighbourhood – some cynical, oh, you fancy yourself as a hot shot director now do you? – some initiating, really, how interesting? How big did you say your budget was? – others ‘endearing’: will you remember me when you’re rich and famous?

Well maybe a touch exaggerated. Pre-production is the next vital link in the chain of production. Many films may start with a solid script but go wrong through lack of real preparation and oversight on the part of the makers.

The first obstacle to overcome is how you want to shoot the video. This introduces the director's bible – the storyboards. These are made up from a series of boxes where pictures are drawn depicting each shot of the feature.

Beside each of these are descriptions of the individual shot and whatever dialogue or action happens within them. You don't need to be an accomplished artist to make up the storyboards. Simple stick-men style drawings are sufficient for producing something that you and your future crew can work from.

If you're still not happy with the results, get a friend to do them or simply construct a written shot list giving a description of each one in the film so, at the very least, you'll go on a shoot knowing exactly what shots you want, not necessarily how you want them to look. While it is important to remember that a clear vision is needed for any film, the storyboard is a guide not the

final say. Due to the nature of a shoot where anything can happen, you'll find yourself making alterations whether it's due to weather, circumstances beyond your control or simply because you've changed your mind about how it is to be shot.

Don't be afraid to do this: The more research done at this stage, the better your instincts will serve you on the actual day and it will normally turn out to be right.

With the storyboard's finished, it's on to cast and crew hunting. If the production is small then yourself and a few friends can do it but if you're feeling brave and think that a more experienced crew and cast are needed then place adverts in the local newspaper for talent; try and get the local radio station to give you a little air time; contact amateur dramatic groups, drama schools and video clubs if there are any in the area.

It's always best to ask to see people's work via their showreels. A short interview to make sure they are enthusiastic and commit-



Behind the scenes

If you've ever wondered what all those masses of jobs were in the credits of your favourite film, then here is the list for a 'skeleton' crew.

Small crews generally work the fastest so keep numbers to a minimum by doubling people's roles up. It's best to take an extra person around with you as well to help lug gear and look after it when everyone is focused on their jobs, which are:

PRODUCER – In the real world, this guy or gal is the employer who hires and fires everyone including the director. They're the one who hunt money out of its hiding place to feed into the film.

DIRECTOR – Just the person who leads the team and calls the shots... easy life!

PRODUCTION ASSISTANT – The director's nanny. Helps with all the paperwork, drawing up schedules, crew lists and anything else which can be thought of.

Frequently seen standing round on the set with a clock casually saying 'two minutes left for this shot' while everyone else runs round like chickens with their heads cut off.

Can be doubled up as a location manager who finds the different settings for your film and then gets permission to use them for free with their superb negotiation skills.

LIGHTING CAMERA OPERATOR – The eyes of the director. Good camera operators can bring their own ideas to the director's vision without stepping on anyone's creative toes.

They can also double as lighting designer, a much underestimated job – it's not just a case of whacking a few lights up and making it look like Neighbours.

SOUND RECORDIST – One of the most important jobs on the crew and rarely receives any recognition because they don't have a funky piece of equipment to strut around with. They can often make the difference between a professional or amateur production.

Also rolls the videotape and performs spot checks, which is looking at the previously shot image to make sure that there is no distortion or breaking up of the picture.

EDITOR – The person who makes or breaks a film. A bad video can be made to look excellent and vice versa by editors working their cutting room magic.

Choosing your crew

ted should be enough to give you a fair idea of what kind of person they are.

The same principle applies to the acting; auditions are sometimes not that useful. Nerves of the moment can help to produce a bad performance that does not do their talent justice.

The most important element to the selection process is the interview. The kind of rapport struck up between the actor and yourself is very important with regards to how well they'll receive instruction and how confident they are on set. Look after your actors; decent ones are few and far between.

If this all sounds a little nightmarish, don't worry – its layout is for a large scale amateur production. For the first few films, you may well decide to follow a more simple route using friends for all the roles – an ideal way to start.

● Next month, we'll be taking a look at the creation of scheduling, call sheets and the first steps out with the camera.

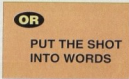
Adam Phillips
looks at recruiting
in the second part
of his epic
serialisation
of the video
making story



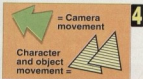
Full-blown pictures look good



Stick drawing can be effective...



PUT THE SHOT INTO WORDS



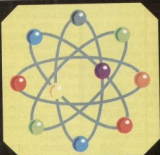
OR

Character and object movement =

Get it together with Fusion Paint!

Manual
only
£6.95

Push your Amiga Computing CoverDisk software to the limit - learn just how hard you can make it work with this excellent manual



Order form

Please send me Fusion Paint

- ☐ The Fusion Paint manual at £6.95 including p&p (UK only)
- ☐ Overseas readers need to pay an extra £2 towards postage
- ☐ Australian readers can buy the manual for \$26. Cheques should be made payable to Activation, 10 Agnes Street, Meadow Bank, Sydney, NSW 2114
- ☐ Cheque / postal order payable to The Disk Company
- ☐ Credit card (Visa or Mastercard) Expiry date
- Card No

Deliver my goods to...

Name

Address

Postcode Daytime phone

☐ Tick this box if you do not wish to receive promotional material from other companies

The Fusion Paint manual is both well written and comprehensive. The Quick Tutorial section takes you through every essential operation, from the Startup Window to Rubberbanding. This user friendly book also contains a detailed reference section, including paragraphs on menus and the collection of individual tools. The trouble shooting section provides invaluable assistance. It's a bargain at only £6.95.

Send to Amiga Computing Fusion Paint Offers, Imediat, B3 Edison Road, St Ives, Huntingdon PE17 4LF, or if you are paying by credit card you can telephone 0480 496688. Allow 28 days for delivery.

Now you can run top PC programs on the Amiga

PC Task, the ingenious emulator that lets you run PC disks on an Amiga, can be yours for the exclusive price of only £39.95 including VAT and postage and packing, saving £10 on the normal retail price.

PC Task does not take over control of the Amiga and is quite capable of multitasking, it just becomes another application screen to be switched to when wanted.

The emulator supports two floppy drives as well as two hard disks and pseudo hard



Only
£39.95
SAVE
£10

disks can be created as files on your hard disk. This feature allows the use of already created bridgeboard pseudo-hard disk files. You can also use a partition as a hard disk. And don't forget that the major advantage of software emulators like PC Task over hardware add-ons is that they don't invalidate your warranty.

PC Task comes with an excellent manual that keeps things easy to understand, plus more technical information for advanced users. There's also technical support.

The speed of PC Task is directly related to that of your Amiga, and the program includes EGA and VGA support. It is compatible with all Amigas running Kickstart/Workbench 1.2 or higher with at least 0.5Mb of RAM, although some features do need a minimum of 1Mb. MSDOS is not supplied. It is suggested that you use v5.0 or v3.3.

Order form

Please send me PC Task

- ☐ I wish to pay £39.95, which includes VAT and postage and packing by...
- ☐ Cheque / postal order payable to European Electronics Ltd
- ☐ Credit card Expiry date
- Card No

Deliver my goods to...

Name

Address

Postcode Daytime phone

☐ Tick this box if you do not wish to receive promotional material from other companies

To order your copy of PC Task just complete this order form and post it to PC Task Offers, Amiga Computing, Europa House, Adlington Park, Macclesfield SK10 4NP, or if you are paying by credit card you can phone 0428 878888. If you do not want to cut up the magazine you may send a photocopy of the form or send the details on plain paper. Allow 28 days for delivery.

S equencers

Product: Bar & Pipes Professional 2
 Manufacturer: The Blue Ribbon Soundworks Ltd.
 Price: £299.99
 Distributor: Meridian Distribution Ltd, 081-543 3500

Pro Midi product with unlimited tracks, built-in notation, software mixer, graphic editor plus an open-ended architecture which allows the addition of add-on sound processing tools, plus simple integration of complementary products from the Blue Ribbon range.

Comment: Highly recommended in all departments but especially useful for multimedia and DTV applications, with the release of Bar & Pipes Pro 2 making it the most flexible and arguably the most powerful package on the market.

Product: KCS Level II 3.5
 Manufacturer: Dr T's
 Price: £278.99
 Distributor: Micro-Pace UK Ltd, 0753 551888

Tap recorder-style main screen. Real-time Tiger graphic editing environment offering complete control over all Midi data. Quickscore notation system. Automix real-time software mixing plus programmable variation generator and master editor providing the most comprehensive variation generation available via 16 screens of editing tools and definable variation parameters.

Comment: An all-round pro product which offers the most powerful and accurate sequencing environment on the Amiga. However be warned: This is very serious software designed to meet the needs of the most demanding studio musician/engineer. An excellent investment for the experienced Midi musician but perhaps a bit too much for the average punter.

Product: Sequencer One Plus
 Manufacturer: Gajits Music Software
 Price: £59.90
 Distributor: Gajits Music Software, 061-236 2515

Offers a unique diamond editing system which means that all adjustment of Midi data whether it be note, control or program change can be achieved via a simple point and click system - making its editing environment extremely quick and easy to use.

Comment: A very good basic sequencer offering all the essentials if perhaps a little lacking in the frills. For the beginner or occasional user it's the perfect compromise between power and ease of use. However it does not offer the expandability and power features supplied by either B&PPro or KCS.

Product: TIGER Cub
 Manufacturer: Dr T's
 Price: £99.95
 Distributor: Micro-Pace Ltd, 0753 551888

Although limited to just 12 tracks, TIGER Cub is still a viable investment with a proven track record plus real-time graphic editing and Quickscore notation printing.

Comment: Although rather superseded by more recent releases, TIGER Cub nevertheless offers a good introduction to the Dr T's family at a price the beginner can afford - just...

Product: MusicX
 Manufacturer: Microlutions
 Price: £24.95
 Distributor: Silica Systems, 081-309 1111

Tracks run to 250, plus librarian, protocol, filter and keymap editors. Like all the sequencing packages mentioned, MusicX is happy to process Amiga samples in addition to normal midi data.

MUSIC

Comment: Although something of a golden oldie in Amiga sequencing terms, MusicX is undoubtedly the best value package on the market and offers a great opportunity for the beginner to test their musical ability prior to investing in a more modern package.

Patch editors/ librarians

Product: PatchMeister
 Manufacturer: Blue Ribbon Soundworks
 RRP: £79.95
 Distributor: Meridian Distribution Ltd,
 081-543 3500

A generic librarian package which can be appended to either Super Jam or Bars & Pipes professional as either a standalone or accessory. Boasts support for most modern



On your Xmas list

synths.

Comment: In relation to other packages Patchmeister offers a more accessible route into what can be a rather complex area. Due to its easy assimilation into the overall Bar & Pipes environment, it's the perfect complement to Blue Ribbon Midi system.

Product X-OR 1.1
 Manufacturer: Dr T's
 Price: £199.99
 Distributor: Micro-Pace UK Ltd, 0753 551888

Boasts the most comprehensive support on the market with over 120 Midi devices catered for. In addition the software is completely programmable and can learn and remember your entire Midi setup ready for instant editing when required.

Comment: As like its parent program KCS, X-OR 1.1 is not ideal for the beginner, being designed to fit the needs of the professional who wants and will use its powerful if rather complex options.

As a prelude to the silly season, Paul Austin provides a concise buyer's guide to Amiga music software

Miscellaneous

Product: SuperJAM 1.1
 Manufacturer: Blue Ribbon Soundworks
 RRP: £99.95
 Distributor: Meridian Distribution 081-543 3500

The musical talents of six virtual musicians combine to provide an automatic song generation system which produces instant backing tracks

with the band as a whole taking their lead from a selection of supplied and add-on styles.

Comment: Although perhaps not of great use to inspirational musicians, Super Jam can nevertheless be an invaluable tool for commercial musicians who are often called upon to produce large quantities of lift music quickly.

The Next Generation is Here

Quarterback Tools Deluxe

If the things you create with your Amiga are important to you, you need Quarterback Tools Deluxe. With Quarterback Tools Deluxe, you can quickly and easily recover your work should disaster strike.

Advanced Disk Recovery and Optimization

Quarterback Tools Deluxe includes the new Quarterback Tools 2.0, the most powerful data recovery tool available for the Amiga. Quarterback Tools can search for and repair just about any problem your disks may have. But Quarterback Tools goes beyond simple disk repair—with it you can restore files that have been accidentally deleted, find bad blocks on your disks and keep them from being used, and even salvage files from badly damaged disks. Quarterback Tools can also optimize the arrangement of files on your disks, speeding file access tremendously!

This new version of Quarterback Tools not only enhances these capabilities, but adds new features as well. It now includes a disk sector editor, for advanced users. With it you can directly modify the contents of any sector on your disks. There is also full support for new features of AmigaDOS 2.0 and 3.0, as well as extensive AREXX and macro support.

Powerful Disk and File Management

Quarterback Tools Deluxe includes much more than just a new version of Quarterback Tools. Numerous new utilities have been added to make maintaining your system even easier than ever. There's Replicator, a full-featured duplication system. Locator, to quickly locate your files. Encryptor, to secure your files from others. File Eraser and Disk Eraser, to completely eliminate all traces of your files. Keystroke Finder, to show you how to type special characters. System Mover, to make moving fonts and system files a snap. And Brain Cloud, which can protect your disks from accidental use by others.

Tools for Everyone

Quarterback Tools Deluxe is the most advanced disk recovery and file management package available for the Amiga, and the one program no Amiga user can afford to be without!

Call us today to find out how you can get your copy of Quarterback Tools Deluxe.



Central Coast Software

A Division of New Horizons Software, Inc.
206 Wild Basin Rd., Suite 109
Austin, Texas 78746

(512) 328-6650

Quarterback Tools Deluxe is a trademark of New Horizons Software, Inc.

Quarterback Tools

- Scans disks for a wide range of problems and repairs them automatically.
- Finds bad blocks on a disk and hides them from AmigaDOS.
- Searches for and recovers accidentally deleted files.
- Salvages files from badly damaged disks.
- Defragments files for optimized disk performance.
- Includes an advanced disk sector editor, for direct access to data on disk.
- Full macro and AREXX support.
- Full AmigaDOS 2.0 and 3.0 compatibility, including support for both hard and soft links.

Replicator

- Quickly makes multiple copies of floppy disks.
- Creates disk images and saves as AmigaDOS files.

Locator

- Searches disks for files that partially or fully match specified names.
- Displays location of files, information about files, and file contents.

Encryptor

- Encrypts and decrypts files to prevent unauthorized access.
- File decryption is password protected.

File Eraser

- Completely erases and deletes files to make their contents unrecoverable.
- Uses standard or US Government erasure methods.

Disk Eraser

- Completely erases all traces of just deleted files, or of all files on a disk.
- Uses standard or US Government erasure methods.

Keystroke Finder

- Displays keystrokes necessary to generate any character.

System Mover

- Quickly and easily moves fonts, printer drivers, and system files between disks.
- Displays version information for printer drivers and system files.

Brain Cloud

- Makes a floppy disk inaccessible to AmigaDOS.
- Not even the Amiga's "Format" command will work on a disk with a "Brain Cloud".

General

- Workbench 2.0 style "3-D" user interface.
- Requires Kickstart 1.2 or later (Kickstart 2.0 or later recommended).
- Suggested retail price: \$125.00.

If you're into comms then you'll be into the Internet. If not physically connected to it, like using CIX's feed, then you'll know about it, and will at least be able to send external mail over it.

But have you ever wanted to be more in touch with the Internet? I wanted to find out about setting up my own Internet node, and boy is it expensive. But there is a cheaper and much more enjoyable way to reach out and touch someone.

In the process of my investigations I heard that Demon Internet can connect you to the Internet with your own node for just £10 a month!

Yep, it's true and I got all the details. The minimum subscription period is just one month apart from the Mail Forwarding option (which I'll talk about in a sec) which is an annual contract.

The services include direct connection to the Internet, mail and Usenet news. A special comms program is needed for your Amiga, but this is downloadable from CIX or Demon.

The Standard Dialup service puts your computer on the Internet with your own Internet address. File transfer (ftp) directly to and from your computer, download/upload mail and news, telnet and ftp all at the same time, by a process called multiple sessions.

You get a full read/write Usenet news feed. You can also have multiple mail addresses from your machine too, like:

```
csnouthy@snouthy.demon.co.uk  
phil@snouthy.demon.co.uk  
postmaster@snouthy.demon.co.uk
```

Demon stipulate that even though you have multiple addresses, "mail must only be processed on the computer connected to us and not passed on to other computers for composing or reading." Gee, why not?

There is a once only set-up fee of £12.50, and from then on a fixed price of £10 a month. There are no on-line charges or charges for mail and the like. Once you are connected to your nearest Demon "Point of Presence" (PoP) you pay no extras.

Right now you can connect to PoPs in London, Warrington or Edinburgh. Payment for home users can be made monthly in advance by Access or Visa credit cards. You may pay annually by cash, cheque or credit card the yearly fee of £120, which is handy if you don't own a credit card, like me.

Oh yes and the best bit. Mail Forwarding is as I said - for an extra annual charge you can add a little something to the Standard Dialup Service, allowing you to use your own domain

COMMS

(like for example "snouthy.com").

This extra service costs a mere £200 per year, payable in advance. But think about it... phil@snouthy.com... damn, I like the sound of that. Oh yes, and technical support for Internet customers is available Monday to Friday between 9am and 9pm and Saturdays between 9am and 6pm. Just think, a mere £320 and you can have your own customised Internet address.

Many thanks to Giles Todd of Demon Internet for all the above information. Now all I've got to do is find a spare £200 to have my own domain...

● Demon Internet Ltd, 42 Hendon Lane, Finchley, London N3 1TT. Telephone: 081-349 0063/031-552 0344 or email internet@demo.net



Takes one to node one

Get online

If you have a comms question, then please write to Phil South, Amos Insight, Amiga Computing, Europa House, Adlington Park, Macclesfield, SK10 4NP. Or take the easy way and email Phil as:

snouthy@icx.computek.co.uk

Phil South looks at life on the Internet, and answers a few questions about FTP

Picking up from a satellite server

Q I'm open for enquiries on the Internet, CIX, and all matters BBS, so why not send me a note by snail mail or email? This month's question is from Christopher Rea on CIX. He wants to know how to get the satellite pictures from Imperial College via CIX. He said he'd tried to use a Gopher server but it didn't deliver the goods. Well, Chris, they rarely do. I always prefer to wade in manually and surf the Internet by hand. It's easy. From the MAIN prompt on CIX, simply type:

```
run internet
```

then at the ip> type:

```
ftp src.doc.fc.ac.uk
```

When Imperial College asks you to log in type:

```
ftp
```

and when it asks for your password type:

```
create@icx.computek.co.uk
```

and you're in. Use cd and dir to find your way to the weather/pics directory as described in the mag. Then when you find the gifs or jpeg files in the directory (I think it was mentioned in the mag) you type:

```
get uk1.gif
```

or whatever the file name is. This sends the file to CIX from IC. Then when you got all the files you want you QUIT out of the IP by typing:

```
quit
```

then you are at the ip> prompt again. Do a dir to see what files you got. Then SEND them from CIX to you by typing:

```
send *.*
```

which will send all the files to you one by one. You can use ADPro or ViewTek (on a Fish disk) to look at the pictures.

Q
and
A

Audio Gallery

Educational Software • Foreign Languages

Chinese



Japanese



English



Korean



French



Russian



German



Spanish



(Italian and Portuguese also available, Dutch in Nov. '93)

Testimonials from Audio Gallery Users

"It's really more than just a dictionary. I really have bought this much more than I knew how to do it is. As a Foreign Language teacher I really appreciate it. This is a very high quality product... one of the first computer FL programs to use current FL methods." *Andrew, 44*

"Wowser! The Spanish Audio Gallery Demo Disk is wonderful. Nobody can describe how pleased we were with the sample. What a great learning tool. Please let us know when you have available Spanish Audio Gallery #2. Thanks again for such a wonderful product. You have a winner on your hands." *Reinhold, 38*

Reviews from Amiga Magazines

"A truly original idea is a rare thing... Furthermore, its use in the US has apparently achieved the impossible by releasing a product that stands alone in this market, offering the answer to a question that's hitherto been ignored... the mastering of a foreign language... it could become the perfect learning tool for all ages." *Amiga Computing*

"There has been nothing like this on the market before and I recommend it for language teachers and anyone (who) wishes to add to their language skills." *Peter Fyfe, Western Australia Times*

"If you're just starting to learn a foreign language, the Audio Gallery series is indispensable as a learning tool... If you're planning a trip abroad, a good phrasebook and the appropriate Audio Gallery title will give you everything you need to know to survive in the language. I highly recommend the whole series." *Jag*

"The program makes use of the Amiga's excellent sound capabilities and provides digitized voices of native speakers - a most expensive way to learn a foreign language." *Amiga World*

- * All words and phrases Fully Digitised Speech.
- * Includes Dictionary, Pronunciation Guide, Quizzes
- * 25-30 Topics such as Weather, Numbers, Food, etc.
- * 7-8 Disk Set - For the Student, Traveller, Businessman

Coombe Valley Software

18 Nelson Close
Teignmouth
Devon TQ14 9NH
0626 779695

European Languages £29.95
Oriental Languages £34.95

Please specify language when ordering. The hardware available now is 640Kb. Hard 1.44mb is available on request for those that want it. Languages: Audio Gallery is copyright © 1990 by Frodo Software, Inc. 1000 E. 12th Street, Suite 200, Lincoln, NE 68502-1000. Tel: (402) 433-1994. Fax: (402) 433-4179. Distributed in Australia by Matrix Software, David G. Campbell, Distributed South Road, Unwin, Victoria 3085, Australia. Tel: 0393 360 300.

PRESENTS VGA FOR YOUR AMIGA

**DOUBLE YOUR SCREEN RESOLUTION
DOUBLE YOUR SCREEN RESOLUTION**

From 640 x 256 to 640 x 480 without Interface!! 640 x 960 Interface!!
THROUGH PORT CONNECTION FOR CGA - VERY EASY TO USE
ADVANCED SCREEN DRIVING SOFTWARE INCLUDED
FULL TECHNICAL SUPPORT TELEPHONE HOTLINE

INTRODUCTORY OFFER ONLY £24.99 INC VAT

UNIQUE HARDWARE ADAPTER
COMPATIBLE WITH 500, 500+, 486, 1200, 5500 AND 2000 AMIGAS
(Provided your machine has a super dense fitted and nearly all machines have)
COMPATIBLE WITH KICKSTARTS 1.3 2.04 AND 3.0

PHONE: FOR DETAILS ON 0703 511164, FAX ON 0703 771860
OR WRITE TO AMIGA, 292 SHIRLEY ROAD, SHIRLEY, SOUTHAMPTON, SO9 3HL.
(Please allow five working days for delivery)

Notwithstanding to whomsoever, we warrant that the software will perform in accordance with the description on the box and will be free from defects in materials and workmanship for a period of 12 months from the date of purchase.

BREAK THE SOUND BARRIER!

THE MUSIC STOP FOR YOUR AMIGA

MIDI/MUSICWARE © - AMIGA PD - HARD & SOFTWARE

For all your Music and MIDI needs.

Samples and Modules for Protracker, Octamidi, etc. Midi Sequencers, Patch editors

For more details please send clip for our catalogue

We are now dealers of:
DR T's & Blue Ribbon products
ARBITER
Editor / Librarian
FATAR
Master keyboards

We are also Amiga 1000/4000 Public Domain Specialists. Send SAE

Sector 16, 160 Hollow Way, Cowley, Oxford
Tel: (0865) 774472

BOOKS FOR THE AMIGA FROM DTBS

Amiga for Beginners	£14.95	Mastering Amiga Beginners	£19.95
Amiga BASIC Inside & Out	£19.95	Mastering AmigaDOS 2 Vol 1 (4)	£21.95
Understanding Imagine 2 (4)	£24.95	Mastering AmigaDOS 2 Vol 2	£19.95
Amiga 3D Graphics in BASIC	£14.95	Mastering Amiga C (4)	£19.95
Amiga Inter	£32.95	Mastering Amiga Printers (4)	£19.95
Amiga C for Beginners	£14.95	Mastering Amiga System (4)	£29.95
Mastering Amiga Workbook 2	£19.95	Amiga ROM Kernel: Libraries	£34.95
Amiga DOS Inside & Out (4)	£19.95	Amiga ROM Kernel: Devices	£25.95
Best Amiga Tricks & Tips (4)	£24.95	Amiga Hardware Ref. Manual	£25.95
Amiga ADOX Insider Guide	£14.95	Amiga ROM Kernel Includes	£34.95
Amiga 1200 Insider Guide	£14.95	Amiga Interface Style Guide	£19.95
Amiga Desktop Video Flow (4)	£24.95	Amiga DOS Desktop Guide	£14.95
Using Amiga on the Amiga (4)	£29.95	Amiga BASIC Desktop Guide	£15.95
AmigaDOS Reference Guide 4th Ed.	£19.95	On-line Manual from Amiga 11902 Ed.	£9.95
The AmigaDOS Manual 3rd Edition	£21.95	2 Companion Disks for Amiga	£4.00
Kids & The Amiga 2nd Edition	£14.95	Mastering Amiga Assembler	£24.95
Amiga Graphics Inside & Out	£29.95	Becoming an Amiga Artist	£16.95
Amiga Desktop Video 2nd Edition	£18.95	Amiga Real Time 3D Graphics	£14.95
Mastering AmigaDOS 3: Reference	£21.95	Amiga Game Makers Manual	£14.95
Mastering Amiga ADOX	£19.95	Amiga's Music & Music	£14.95
Amiga Music Easy	£12.95	Little Blue Workbook 2 Book	£14.95
Little Red Workbook 1 3 Book	£14.95	Program Design Techniques	£16.95
Insultion Practical Guide	£14.95	Mastering Amiga Assembler	£21.95
Official Amiga Vision Handbook	£20.95	Amiga World AmigaDOS 2 Companion	£22.95
Amiga Five O	£9.95	AmigaDOS in Action	£12.95
Amiga Designer's Guide	£14.95	Best Amiga Tips & Secrets	£14.95
Amiga Microsoft BASIC Prog. Guide	£10.00	Amiga Desktop Video (Complete)	£10.00
AmigaDOS Ref Guide 2nd Ed (Vol 1 & 2)	£5.00	Visionary Programmer's Handbook (4)	£24.95
Amiga Hardware Ref. Manual 2nd Ed.	£10.00	ROM Kernel Includes 2nd Ed.	£15.00
Mastering AmigaDOS 3: Tutorial	£21.95	Mastering Amiga Workbench 3	£19.95

Prices include postage in the UK. Add £1 per book in Europe. Annual outside Europe add 25% Access and Visa cards accepted. Tel/Fax 0706 715 028. Cheques/Postal Orders payable to DTBS. Descriptive catalogue available on request. Books normally available from stock.

SHOWROOM NOW OPEN - 413 Manchester Road, Rochdale, Lancashire OL11 3PG.
Monday Closed, Tuesday 10am-5pm, Wednesday 10am-5pm and 4pm-7pm, Thursday 9am-5pm, Friday 10am-5pm, Saturday 10am-5pm (plus is subject to change). All times are subject to change without notice. 24 hour storehouse when shop closed. Please for travel directions and to confirm opening hours. See order to

DTBS (Dept AC11), 18 Norwich Avenue, Rochdale, Lancs OL11 5JZ

One of the most common computing operations known to man is the sort. You take a list of numbers or letters and sort them into a specific order either first till last or last till first.

This doesn't take a great deal of artificial intelligence, as most of the things on these decisions are based is mechanical: Does this word start with an A or doesn't it? That kind of thing.

In the past we've had to construct our own sorts from other commands and make them do the job. But Amos is an exception yet again, as it has a built-in sort function.

OK so it's not very smart and in order to get it to sort anything in a fancy way you've still got to resort to some fancy programming, but nevertheless it works and it saves you a lot of time if all you want to do is stuff some strings in an array and belt them out the other end as soon as possible and in rank order.

Using SORT is easy, all you need is a variable for it to act upon. The variable it acts on is always an array. An array, in case you never studied Basic in college, is a variable which holds more than one value in a number of electronic pigeon holes. It does it like this:

```
Sort a(I)
Sort a(J)
```

like that. In these examples a and a\$ are arrays, the first obviously containing numeric data (numbers) and the second containing alphanumeric data (letters) otherwise known as strings.

The SORT function returns your array in a sorted form of ascending order. This means 1,2,3,4,5... rather than descending order which would be ...5,4,3,2,1. In the case of words or letters alphabetical order is the order of the day.

This function works in the same way in both Amos Pro and regular Amos. An allied function is MATCH, which searches an already sorted array for a specific value. When it finds the value it puts the index (the location in the array) into a variable which you can retrieve later.

So a basic array loader goes like this:

```
Dim i(10)
```

First DIMension the array, in this case ten numbers. Then set up a loop to fill the array with numbers which you input:

```
For i=1 To 10
  Input i(A)
Next i
```

When you get to the bottom of the list, the numbers you put in must be displayed. If you do this:

```
For i=1 To 10
  Print i(B)
Next i
```

then each number you put in will be printed in the order you put it in. Fine. But what if you wanted them sorted into numerical order? Simple:

```
Dim i(10)
For i=1 To 10
  Input i(A)
Next i
Sort i(B)
For i=1 To 10
  Print i(B)
Next i
```

Write stuff

If you have an Amos programming problem or need Amos trick you want to share with the world, then please write to Phil South, Amos Column, Amiga Computing, Europa House, Adlington Park, Macclesfield, SK10 4NP.

Same again really, but notice how SORT is used to arrange the array into order, no matter what wacky numbers you slap in. If you want to type in fractions you'll have to specify a floating point array with the # or 'hash' symbol, as in this more finished example:

```
Dim i2(10)
Screen Open 0,640,200,16,Wire
Flash Off : Curs Off : Paper 0 : Cls 0
Print "Please give me 10 numbers..."
For i=1 To 10
  Print "Number ";i; : Input i(A)
Next i
Sort i2(C)
Print : Print "The sorted figures are as follows..."
For i=1 To 10
  Print i2(C)
Next i
```

As for using MATCH, well it's very easy. MATCH fills a variable with the location of

Sort it aht!

an item in an array. If it finds the item then it loads the index into the variable:

```
%Match(i(10),4.5)
```

for example looks for a value of 4.5 in my array from the previous program. If it finds it at i(5) for example, it'll put the number 5 into X. I can then use:

```
Print i(C)
```

to refer to that location in the array. You could do a devilishly slow sort this way, by searching for lower and lower numbers and any numbers you find being put into another array in reverse order.

Incidentally if MATCH doesn't find a match for its searched for figure or letters, it'll return a minus figure, so this is easily scanned for and ignored.

To reverse the order of a sort more simply do this:

```
Dim i2(10)
Dim i2A(10)
Screen Open 0,640,200,16,Wire
Flash Off : Curs Off : Paper 0 : Cls 0
Print "Please give me 10 numbers..."
For i=1 To 10
  Print "Number ";i; : Input i(A)
Next i
Sort i2(C)
i=1
For i=10 To 1 Step -1
  i2A(i)=i2(C)
  Inc i
Next i
Print : Print "The re-sorted figures are as follows..."
For i=1 To 10
  Print i2A(i)
Next i
```

The magic occurs when we let i2A(i)=i2(C). What we are doing is counting down through the original i2(C) array with the FOR-NEXT loop, and feeding each figure into the i2A(i) array from 1 to 10 by INCRementing the array index as we go. Neat eh?



Phil South looks at the Amos Sort function, plus a few more coding widgets

Write a program!

This is the part where I set you a bit of homework. For starters, can you figure out a way to align the floating point numbers so the decimal points line up? I'll give you a clue - look into using LEN, and LEFTS, MIDS and RIGHTS. Wink.

For the big project how about this: Try to write a program which takes in a list of names and allows you to sort them, and also search for a particular name.

Use flags to attach a small text file to the name and load it from disk. Package it all together and you've got yourself a database program!

Nexus Pro™ Background Picture Sets

High Quality AGA Colour IFF Pictures, perfect for videotitling! Work in all Amiga Paint and Presentation Packages (DPaint, Scala, etc.)

(Also available for Pre-AGA Amigas on request)

Set One : Papers

Various paper types, including parchments, marbled, embossed.

Set Two : Fabrics

Varied fabric backgrounds including silks, cottons, leather etc.

Set Three : Textures

Various textures including woods, stonework, etc.

Set Four : Travel

Including famous landmarks from around the world, perfect for use as chromakeyed backgrounds or for holiday video title backgrounds.

Set Five : Weddings and First Communions

Including parchment, scrolls, flowers, romantic backgrounds, etc.

Set Six : Introduction Pack

A compilation from the previous sets, ideal for new users.

Each 10 disk set is available at a cost of only £29.99 inc. P&P, or buy the whole range for only £130.00.

Send cheque or postal order made payable to:
VIDEOWORLD, 8 Ardloch Gardens, Glasgow, G72 8HB.
Telephone 041 641 1142 for more information.



Credit Cards Welcome

Fonts



SPECIAL CHRISTMAS PRICES

PLEASE ORDER EARLY TO AVOID DISAPPOINTMENT

400 CG fonts – 8 volumes

Each volume includes 50 fonts

complete with installation instructions

only £10.99 per volume

Suitable for use with Pro-Page 3.0/4.0, Pro-Draw (all versions), PageSetter 2.0/3.0, Wordworth 3.0, Workbench 2.0/3.0, ProWrite 3.0, DPaint 4.1 & v4.5 AGA, OpalVision, ScalaPro.

600 Type1 fonts – 12 volumes

Each volume includes 50 fonts

complete with installation instructions

only £8.99 per volume

PageStream 2.1/2.2, Art Expression, FirstCopy 2(rev.2), The Publisher

EPS Structured clipart

3 Volumes – each over 100 clips on 6 full disks

Suitable for PageStream 2.0/2.2

only £12.99 per volume

SPECIAL OFFER – £32.00 for all 3 volumes

Sampler Disk – £4.00 – packed full of examples of our Type 1 fonts, CG fonts, ProDraw & EPS clipart (includes £2.00 Fonts discount voucher)

Payment by: VISA/ACCESS/MASTERCARD/EUROCHECK/ Cheques (with Bank card No. and Expiry Date on reverse), or Postal Order. Enquiries please send 9x6 inch S.A.E. for printed Type & Clipart examples. Post UK - FREE, Europe £1.50 per vol. Rest of World £2.50 per Vol.

Compugraphic Fonts

Adobe Type 1 Fonts

Fonts Dept (AC14)

22 Sincil Street, Lincoln, LN5 7ET

Tel: 0526 398403 Fax: 0522 546131



THE SOCCER EXPERT

Football Result Forecasting

FOR FIXED ODDS & POOLS
Covers all major English & Scottish divisions. League tables & bookmakers' handicap starting points. Database of 1993/94 fixtures.

THE INTELLIGENT WAY TO WIN
Interactive prediction system & statistics. 'Point & Click' user interface enabling easy access to features with superb knowledge in a controlled way. It can aid pools fanatics to make a considered choice about next weeks results.

RESULTS Up to Date of Despatch!

...by using common sense & applying what is public knowledge in a controlled way. It can aid pools fanatics to make a considered choice about next weeks results.

...By sifting through the results predicted for the weekend ahead, users should at least have a systematic guide to their pools coupon if not a guaranteed win. - Amiga Computing Dec '93

VOITHIA

£16.95 inc. p&p

32d HIGH STREET, WELSHPOOL, POWYS, SY21 7JP U.K.

12d copies of 'The Soccer Expert' at £16.95 each TODAY!

Push me ☐ copy copies of 'The Soccer Expert' at £16.95 each TODAY!

NAME: _____ ADDRESS: _____

POST CODE: _____ Please make cheques/ postal orders payable to VOITHIA. Orders normally despatched within 48 hours.

P.M. Solutions Ltd

5A Ashby Square, Loughborough LE11 0AA.



9am to 5pm

Monday to Friday



Amiga A4000/030

2Mb Chip 0Mb Fast 80Mb £940
2Mb Chip 0Mb Fast 120Mb £1040

Amiga A4000/040

2Mb Chip 4Mb Fast 120Mb £1980

Amiga A1200

A1200 2Mb Chip 0Mb HD £285
0Mb Fast
A1200 2Mb Chip 85Mb HD £495

SCSI Controllers

A4091 SCSI 2 Controller £215
GVP's SCSI for A1200 £289

GVP Accelerators

A1230 40MHz 68EC030 0Mb £280
A1230 40MHz 68EC030 4Mb £480

Monitors

Microvitec 1440 15KHz to 38KHz £430
(See manual)

Misc

4Mb Simms £145
Bridgeboard A2386cx25 £195

Commodore 1940 dual sync 0.39 £275
Commodore 1942 dual sync 0.28 £375
(Come with internal amp 1 Watt and Speakers)

Order Line: 0509 260172

Fax Line: 0509 238561

Prices include VAT at standard rate.
All prices subject to change & delivery

There is no substitute for a well presented document where each page consistently looks like it belongs to the previous one. On the same theme, if your document is a periodical — that's a document issued on a regular basis — it is again important that each issue has a similar style to the previous one.

But this consistency should not be at the expense of speed. Deadlines still have to be met, so a method like templates is needed, a foundation on which you can base the pages in your document.

There are a couple of ways you can employ templates. One is to use a page template within a document as the basis for every page, and the second is the template document.

The former template is essentially a page that is not printed but contains all the "furniture" that you will have on each page thereafter — furniture being elements that are used regularly by a particular document — the page number for example, the name of the document or the chapter title, and any graphics that are repeated from page to page.

By having these on a template you can create all the pages for your document with these elements already present on the page in the same position and in a consistent style.

Achieving a consistent style will require other tools, like tags, and in ProPage at least you can pre-tag text on your template so that when you load text into a box the new text will automatically acquire the tag.

This isn't the case in PageStream because elements from its version of a template, the master page, cannot be edited on any other page other than on the master page itself.

Now, so far I have applied this to a single template page, but in both PageStream and ProPage the template page can be two pages, a right and left, or odd and even if you prefer.

DOCUMENT TEMPLATES

In ProPage you always have an odd and even template, in PageStream you can set whether you want the one master page, or a right and left master page, when you create a new document.

Although the two programs can work with both left and right templates, they use different methods of creating the pages from these templates — hardly surprising as they do most things differently.

In ProPage each page has to be created manually, in PageStream your pages are already there for you when you create a new document.

What is important is the way the two programs use the templates. In ProPage you can lay out the elements on your template and create a page from this, either a single left or right page or, in facing pages mode, both right and left pages at once. By specifying boxes linked, text can be flowed from page to page until either all the pages are filled or the text runs out. In PageStream, with the

pages already created, you do not create a page from a master. Rather, you add your elements to the master page and these will appear on the corresponding pages in the document.

So if you are working from a single master all pages in the document will contain these elements, but if you are working with left and right templates, by adding a element to a right-hand master page, all right-hand pages in your document will also have these elements.

PageStream does not enable you to edit any of the elements from the master page on a page within the document. So if a graphic element is not required on a certain page in your document the only thing you can do is delete it on the master page, in which case it will disappear from all pages in your document. Or you could cover it up with another box. Template pages are not the end of the



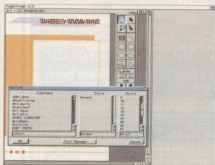
Standing on solid ground

story. Template documents are also very useful. A common example is the humble letterhead. By creating one and saving the document as a template it can be used as the basis for all your letters, making the task in a DTP package simple as all the decorative elements are in place with only the individual text to be imported.

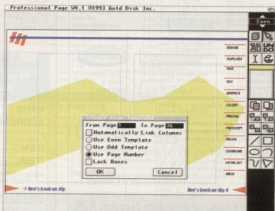
ProPage goes one step further, enabling you to save single pages and load them into a current document. This is useful when there are elements in one document you want to be present in your new document. PageStream does enable you to append documents, so you could fudge something similar.

If you get the feeling that templates are vital in document creation, you're right, they are. But more than anything they make the designer's job much easier and quicker, which is why most wouldn't be without them.

What is a template and why are they so important? Ben Pointer draws his conclusions



PageStream can have two types of master page: A single master, which is the base for all the pages in your document, or a left and right master page. Objects that are placed on a master page cannot be edited within the document



ProPage 4 enables you to work on facing pages, so one or many spreads can be created very easily, like this one here that is made up of two pages, an odd (right) and even (left) page

Journal of Management Education

ADI JUNIOR/FUN SCHOOL SPECIALS

From the makers of Fun School, these spirited educational packages are just the ticket to give your child a flying start! Paint and Create exercises practical creative skills. Merlin Maths enthral children while covering the basic skills, and Spelling Fun guides your child through the intricacies of basic grammar. ADI helps with Reading and Counting.



FROM
£17

Product	Price	Order No.
Paint & Create (24 pages)	£19.95	9992
Merlin Maths (51 pages)	£19.95	9996
Spelling Fun (27 pages)	£19.95	9987
ADI Junior Reading (67 pages)	£27.95	9281
ADI Junior Counting (67 pages)	£27.95	9282
ADI Junior Counting (67 pages)	£27.95	9283

VGA MONITOR ADAPTOR

The AMI VGA Adaptor is a handy little gadget which gives most Amiga owners easy access to the higher resolution display of a VGA monitor.

- It is very easy to use - just plug in and off you go
- Works with any standard VGA or Multisync monitor
- Use screens of up to 640 pixels x 480 lines without interface and without flicker
- Compatible with Amiga 500, 500+, 600, 1200, 1500, 2000
- Operates with Kickstart 1.3, 2.045 and 3.0
- Screen driver software supplied
- Through-port allows the connection of a CGA display
- Full technical support telephone service



ONLY
£37

Product	Price	Order No.
VGA Monitor Adaptor	£37.99	9158

ALFADATA HAND SCANNER

The scanning package comes with the excellent Touch Up and Merge It packages and the AlfaData scanning rule. By using the Merge It software you can scan A4 pages in several passes and paste all the scans together.

Other features include 100-400dpi scanning resolutions, 256 greyscale conversions, easy to learn & intuitive user interface, easy installation, with 1 text and 3 photo mode selector switches, and award winning package.



ONLY
£115

Product	Price	Order No.
AlfaData Hand Scanner	£115.00	9272

VIDI AMIGA 12

The ultimate low-cost colour digitiser for the Amiga! No RGB splitters or optical filters are required, and you can grab full-colour images in less than a second! Icons are grabbed in real time! With an abundance of file formats, full multitasking and composite or S-video output, it's versatile and powerful.



ONLY
£75

Product	Price	Order No.
VIDI Amiga 12	£75.00	9293

AMIGA

COMPUTING

ALL PRICES
INC VAT & UK
POSTAGE

READER OFFERS

Order Hotline: 051-357 1275

Fax: 051-357 2813 General Enquiries: 051-357 2961

Order at any time of the day or night. Don't forget to give your name, address and credit card number

TROJAN LIGHT PEN

Wouldn't it be good to really "draw" when using paint and graphics packages? Well now you can, by plugging the amazing Light Pen in instead of your cumbersome mouse. It comes with a specially designed drawing package, Kwildraw, as well as a compatibility software for most Workbench-run programs.



ONLY
£34

Product	Price	Order No.
Trojan Light Pen	£34.95	9807

TROJAN PHAZER GUN

Bored with playing those joystick games? The advanced light phazer gun opens a whole new phase of computer entertainment presenting the challenge of skills and accuracy for gameplayers of all ages. Pack contains 2 FREE GAMES.



ONLY
£35

Product	Price	Order No.
Trojan Phazer Gun	£35.00	9887

Games Available:

The Enforcer

Code: 9806 £9.95

Firestar

Code: 9823 £9.95

Alix

Code: 9807 £9.95

Cyber Assault

Code: 9805 £9.95

10 OUT OF 10 MATHS (NUMBER)

For children 6 to 16 years. This is a first rate set of games suitable for a wide range of ages and abilities. They are educationally worthwhile and exciting to play – a rare combination. They are highly recommended for both home and school use.

NEW Offer



ONLY £15

Product	Price	Order No.
10 out of 10 Maths (Number)	£15.95	1042

10 OUT OF 10 ENGLISH

For children 6 to 16 years. With its elaborate system of colour coded levels of achievement and multiple levels of difficulty. This is a useful compilation of programs based on the current National Curriculum for English. Guaranteed to sustain the attention of even the reluctant of learners.

NEW Offer



ONLY £15

Product	Price	Order No.
10 out of 10 English	£15.95	1043

WORKSTATION 2

Have you got the very latest Amiga? If so, you need the ultimate Workbench 2. Whether you have an A500 Plus, A600, A1500 or perhaps a Workbench upgrade on a 1.3 machine, the time has come to take control thanks to the amazing WorkStation 2. It's the disk the Amiga user has been waiting for...

WorkStation 2 has been designed specifically for the new breed of Amiga with the express purpose of simplifying the computing process while providing all the computing tools you ever need. This indispensable collection of utilities includes the very latest and best software compiled within a smooth and simple user friendly interface. No more CUI or Shell, a simple point and click it's all you ever need.

This is just a small selection of the tools and utilities on offer. Others include ScreenK and GFWare.

For the artists out there Kon Edit awaits to produce customised icons, while NickPretz adds the option for a 16 colour desktop background.



ONLY £4

Product	Price	Order No.
WorkStation 2	£4.95	1051
WorkStation 2 - A500	£2.95	1052
WorkStation 2 - A600	£2.95	1053
WorkStation 2 - A1500	£2.95	1054
WorkStation 2 - A500 Plus	£2.95	1055

OPTICAL PEN MOUSE

A stylish Pen Mouse with quality construction and smooth fast movement. It has Micro-Switch buttons which is ideal for DTP, artwork etc. It comes with its own Optical Pad

NEW Offer



ONLY £34

Product	Price	Order No.
Optical Pen Mouse	£34.95	1061

MAVIS BEACON TEACHES TYPING

Simply the finest young program in the world, this award winning software takes you step by step through the keyboard. Coaching you at your own speed and skill level, monitoring your progress, the stunning graphics, the help facilities and complete typing textbook makes learning to type interesting and fun.



ONLY £27

Product	Price	Order No.
Mavis Beacon Teaches Typing	£27.95	1062

VIDEOMASTER

The Ultimate Multi Media System for your computer. Videomaster is a revolutionary breakthrough in home computer technology combining the complexity of a Video Digitizer with a Sound Sampler in a single easy to use tool set, to bring you the ultimate home multi-media videomaster editing package.

Videomaster will allow you to record monochrome, quarter screen pictures at speeds of up to 2575 frames per second (BPS) providing ultra smooth playback at high speeds. These pictures can be recorded from the output of a video recorder or directly from a video camera or a camcorder and edited on your computer screen.

Videomaster can produce great 'grey' scale pictures from any video source with a paste or fill home facility. The colour filter provided in this package will enable the use of video cameras or camcorders to produce high quality still pictures in glorious colour.

Videomaster features a sound sampler as part of the hardware. Though the software can be used with external sound samples. This is supported by a full feature sound recording and editing program within the videomaster software. The Videomaster system also features a video sequence.

The complete package contains the Videomaster video digitizing and sound sampling hardware unit, 128 Colour film for colour camera use, comprehensive user guide and full system software.

Videomaster only works with Amiga 500 and 500 Plus models.



ONLY £54

Product	Price	Order No.
Videomaster	£54.95	1063

TECHNO SOUND TURBO II

T2 has been completely redesigned with CUSTOMISED FULL DOWN MENUS and many useful features have been introduced. These include DIRECT TO HARD DISK RECORDING, so now you can make those really long recordings without running out of memory.

The built in TRACKER program allows you to input sampled tones from the computer keyboard so that you can create your own melodies.

The SEQUENCER allows you to link very long samples together without the need to display the waveforms on the screen, and is ideal for noises and long complexions.

The MIX MODULE enables samples to be played on all 4 audio channels from a MIDI keyboard, Drum Box or External Sequencer. (MIDI interface required).

Samples can now be stored on an ext. disk which allows instant access direct from memory. A wide range of CONTROLLABLE effects including reverb can be added to the samples including Variable Delay, Variable Echo and Variable Sync.

The REALTIME EFFECTS are all controllable and can be saved as presets up to 1995. New features include SAMPLE, BMAP and PITCH UP/DOWN.



ONLY £44

Product	Price	Order No.
Techno Sound Turbo II Upgrade	£44.95	1064

POWERPACKER PROF

Here's a winner using this powerful utility, you can fit around 40% more information on every disk you use – sometimes up to 70%. The powerful "crunching" routines actually crunch your programs, and expand them on running. Along with the supplied utilities, this contains all you need to pack those disks.



SPECIAL OFFER:
Buy Powerpacker and Kill Da Virus together at the special price of £25 and save nearly £5

ONLY £14

Product	Price	Order No.
Powerpacker Professional	£14.95	1065
Powerpacker Professional + Kill Da Virus	£25.00	1066

ALL PRICES INCLUDE VAT & UK POSTAGE

X-COPY PROFESSIONAL

This superb copy enables the Amiga user to back up their data safely and effectively.

Features include:

- The most comprehensive backup utility
- Includes floppy disk backup, hard disk backup and file backup
- Also backs up 10, 800 bit disks
- Checks disks for errors
- Dynamically data for faster loading
- Fast format option
- Copies up to 4 disks in 10 seconds
- Full quality screen monitor
- Secure 100% protection, even for all your needs, included in the package is a small hardware device that plugs into the external drive port – one of the Amiga and your external disk drive if you have one plug into the back of the interface. It allows the digital bit image copy mode to use the Adaptive Pulse mode Modulation system to back virtually all known disks.



ONLY £35

Product	Price	Order No.
X-Copy Professional	£35.95	1067

AMIGA
READER OFFERS

Order forms and more great offers over the page

NEW! PICASSO II RTG



Retargetable Graphics:

"The ability to run well behaved software on any arbitrary graphics device." - Spencer Shanson, Commodore Engineering.

RAM used for the emulation. Only the currently visible display is kept in Picasso II display memory. All other screens are stored in system memory, allowing ALL system memory to be used as graphics memory. The Picasso II has an electronic switch that automatically routes the proper signal to your monitor, so non-Picasso II screens are passed invisibly to your monitor. The Picasso II emulator supports WB 2.04 and up. It is compatible with all Zorro II/III Amiga's. Intuition Screen Modes are 640 x 480, 800 x 600, 1024 x 768, 1152 x 1024 (1Mb version) - 1280 x 1024 (2Mb version) all in 2-256 colours. Other features: 24 bit graphics (16.7 million colours) at up to 800 x 600, 64000 colours at over 1024 x 768 and AutoScrolling screens up to 1600 x 1300. These modes support all industry standard monitors, or custom screen modes can be created for your monitor with a supplied program.

EXCLUSIVE UK DISTRIBUTORS

PICASSO II RTG - 1MB RAM	SEE SPECIAL OFFER
PICASSO II RTG - 2MB RAM	SEE SPECIAL OFFER
PICASSO II RTG - 1MB RAM WITH TV PAINT JUNIOR	
PICASSO II RTG - 2MB RAM WITH TV PAINT JUNIOR	
PICASSO II RTG - 1MB RAM WITH TV PAINT 2.0	
PICASSO II RTG - 2MB RAM WITH TV PAINT 2.0	

£299.95
£339.95
£339.95
£379.95
£469.95
£499.95



- Multiple emulations from one board (Reduces cost and saves on Zorro slots!).
- Mac emulation boasts full colour (16 standard, 256 AGA, 1.6 Million with supported graphics cards!) and all emulations will multi-task!
- EMPLANT supports Hard Drives, (via on-board SCSI or AmigaDOS partitions), Hard Files, MAC 800K (via Mac drive adapter), MAC/IBM 1.44Mb, IBM 720K, EMPLANT and AMAX formats. SCSI interface supports both Amiga peripherals and the emulated system peripherals at transfer rates of over 1 Mb/Sec.
- Support for AppleTalk/Serial ports, Printers, Modems, Midi, Stereo Sound etc.
- Supports SyQuest, Any AmigaDOS device (DHO, RAD, VDO: etc.), Scanners, Graphics Tablets, CD ROM etc.
- Emulation speed is exceptional and compatibility is excellent. All known software runs!
- The IBM 386/486 emulation is soon to be released, with Atari ST/Falcon, C64/128, SNES/SEGA (among others) all planned in the future. These will be available as upgrade modules.
- Currently supports any Zorro bus Amiga with A600/1200 (PCMCIA version out soon).
- Requires 68020/30/40 with 4Mb RAM minimum. (The MAC emulation requires 256K MacII/x/xx/SE30 ROMs).
- The EMPLANT can also provide 2Mb battery-backed static RAM and has an audio digitiser built in!
- Incorporates File Transfer system between Amiga/Mac/PC.
- We provide full UK support and free software upgrades.
- Free UK support BBS on 0908 310208

★ EMPLANT ★

£349.95

INCLUDES SCSI INTERFACE + APPLE TALK PORTS

24-bit Drivers for Picasso II, Retina and Piccolo, EGS Spectrum, Merlin with Opal Vision + others to be released soon.

TRADE ENQUIRIES
WELCOME



CREDIT CARD ORDERS ATTRACT
A 2.5% HANDLING CHARGE.
GOODS NOT SENT ON A TRIAL BASIS.
E&OE. ALL PRICES INCLUDE VAT & COURIER

TO ORDER CALL OR FAX
(0908) 220196

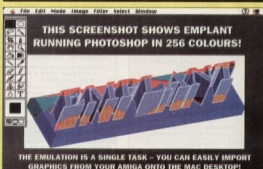
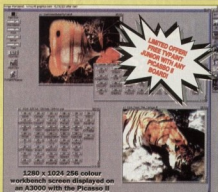
UK BBS
(0908) 310208

BLITTERSOFT

(Dept AC)

40 COLLEY HILL, BRADWELL,
MILTON KEYNES, BUCKS,
MK13 8EL

The **PICASSO II RTG** (Retargetable graphics) is the future of Amiga graphics display technology. It is not restricted by memory limitations or custom chip speed of the host system. The RTG emulator integrates seamlessly to allow resolutions up to 1280 x 1024 at up to 256 colours to all system friendly software. It also supports custom screen modes with up to 16.7 million colours at 800 x 600. Speed is derived from an on-board blitter, supporting drawing speeds at up to 30Mb/Sec. Off screen displays are moved to Picasso II display memory for super-fast screen updates. There is NO Chip



pets



BLANK DISKS

3.5" DSD, ALL PRICES FULLY
INC. WITH LABELS P&P
AND 100% GUARANTEE

50 DISKS £22
100 DISKS £37
150 DISKS £54

SEND CHEQUE OR PD TO
MAGMEDIA
3 ASH ROAD, STILTON
PETERBOROUGH
CAMBS. PE7 2RN
07730 241293 11am to 2pm

PRINTERS & COMPUTERS

AT THE VERY BEST PRICES
ALL MAKES AVAILABLE
WITH FREE DELIVERY JUST
PHONE
ESSEX LASER SERVICES
ON (0473) 652590



**WORTHING
COMPUTER
CENTRE**

7 Warwick Street, Worthing,
West Sussex BN11 3D4

- Stockists of Amiga, IBM, Atari, Psion, Star and Citizen
- Large range of software for most formats
- Large range of books, ribbons, disks and paper

(0903) 210861

ASTROLOGY

Comprises a simple program to calculate a horoscope, an introductory booklet & 3 self-teaching programs
(Have the interpret the horoscope)
Only £12.50 - No previous knowledge required

TEACH YOURSELF with our STARTER PACK

Payment by Access/Visa, Cheque, etc.
Or send for free catalogue or our wide range of programs for
PROFESSIONAL ASTROLOGERS
discuss a sale (30p - about 9" x 7")

ASTROCALC (Dept AMC), 67 Peacraft Road, Hemel Hempstead,
Herts, HP3 8ER, England. Tel: 0442 251809 Fax: 0442 248902

GAMES GROTO

Game exchange, Sega & Nintendo
from £2.00 + p.p.p.
Amiga/PC PD Catalogue disk only £1.00
PD Software 75p per disk. Budget games from only £4.99
Latest titles always in stock

132 Derby Lane, Old Swan,
Liverpool L13 3DW.
Tel: 051-252 1020

NETWORK PD LIBRARY

Action, Business, Drama, Education, Games, Music, 1-Edits
You name it, we've got it. We have a huge range of PD for all
Amigas including 61280 Plus FROST catalogue and a 540 K

NETWORK PD LIBRARY

Edinburgh

Edinburgh

Edinburgh

Prices start at £1.50 per disk or £1.25 each for 10 or more
All prices include postage and packing. E&OE

IRISH & UK PD USERS

Jorvik Public Domain

(Dept AMC) 99 Hemlock Avenue, York YO3 9DG

Telephone: (0904) 634637

Please mail all Cheques/PDs payable to: D Bateman

PD PRICES
We supply Disked 75p | Fax 7 included
You supply Disked 75p | or 3 1st class stamps
Catalogue Disk 75p

ACCESSORIES
Bulk 3.5" DSD 9p + 50p per 10 disks for P&P
Mouse Mat £2.49 + 50p per Mat for P&P
100 Labels £3.49 + 75p per box for P&P
10 Capacity Box £3.49 + 75p per box for P&P

LATEST DISKS

The Complete Steve Parker Vols 1-10 (10)
Speed (1) - 54m
Memories Tompland (1) - Apolynye
Central Laboratory - Poudin
Elation - Fairings (10m Chip)
Ball Marking (20m)
Frank m Terrell (1) (20m)
Spar Trek III (1) (20m)
Destruction (20m)
Action Replay IV (120m only)
Spectrum Magazine v1.7
1.5D Tools 1-148
Assassin's Games 1-142
Catalogue available
07807

Don't risk missing your AMIGA COMPUTING

Hand the order form below in to your local newsagent and s/he will make sure you never miss a copy!

To the newsagent: Amiga Computing should be available from your local wholesaler. If not, contact the Circulation Department at Europress on 0625 878888

AMIGA COMPUTING

Please reserve a copy of Amiga Computing magazine every month until further notice.

☐ I will collect

☐ I would like it delivered to my home

Name: _____

Address: _____

Postcode: _____

To place an ad on this page call Barbara Newell on 0625 878888

Copy dates:

Jan 23 Nov On sale 16 Dec
Feb 14 Dec On sale 13 Jan
Mar 18 Jan On sale 10 Feb

49.5mm x 35mm

103mm x 35mm

49.5mm x 74mm

Free typesetting service provided

AMIVISION SOFTWARE present

PowerBase v3.30

"The best value user-friendly database on the Amiga"
Amiga Computing, Sept 93

- Up to 10,000 records on a 1MB Amiga
- Easy to use - pull down menus, VCR style command panel, separate pop-up screens with the most used functions and no file help
- A powerful field types, include B/W pictures (even in RAM mode) and unlimited length text files into your records. Calculate fields automatically from others
- Incredibly powerful record filtering
- Lightning fast searching (2 types) and sorting (3 types)
- Label printing, reporting and many other printer options
- Design an unlimited number of form layouts
- Output data to screen, printer, labels or file for mail merging
- View your records as 4 powerful modes: page, record, table and the save form layout
- Hard disk installation utility, extra utilities and example files
- Other features include: fixed size save, alarm, many preferences (including a printer preferences window), add video fields at any time, record calculation, join records, keyboard shortcuts, password protection, PASCAL, screen notes, personalisation, intelligent data fields, easy record editing and much more all from one package

Complete with detailed instruction manual for just **£14.95!**

OTHER AMIVISION SOFTWARE PRODUCTS INCLUDE:-

WORD POWER 48 - Complete word utility (Crossword/Anagrams solving - each more 30,000 - word dictionary)	£3.95
POWER PLANNER - Personal organizer (date, address/telephone book, automatic reminders, regular events etc)	£3.95
ADVA POWER - Create menus for your data (set in FT picture to the background - burning)	£3.95
FORMULA 48 CHALLENGE 48 - Complete simulation for 7.4 players, very detailed includes 1993 season	£3.95

THE POWER COLLECTION

PowerBase v3.30, Word Power 48, Power Planner, Adva Power and Disk Power
SPECIAL OFFER - SAVE £10 - ORDER NOW FOR JUST £37.95!

All programs require 1MB memory and are compatible with ALL Amiga including A1000
Prices fully inclusive for UK. Overseas orders please add £1 P&P

PLEASE MAKE CHEQUE/POSTAL ORDER PAYABLE TO:- S. BENNOCES

Dept. AC, 1 Cherrington Drive, Great Wyrley, Walsall WS6 6NE

"An essential purchase"
Mr T Wagstaff, Mansfield
See review this month
Amiga Shopper

"PowerBase is a program designed with ease of use in mind"
Amiga Computing

"Great database"
Amiga Format Gold Award
"The finest example of business software to date"
"Incredibly easy to use"
CU Amiga

"I have never seen such a powerful database that costs so little before, now here I come across such a polished program that is so easy to use"
970 - Amiganamic Magazine
Taking the market by storm, find out why

FREE FREE FREE
Working demo disk & catalogue
Send SAE or 90p to cover R&P

G.V. BROAD DEPT AC, 43 BADGER CLOSE
MAIDENHEAD, BERKS SL5 2TE
TELEPHONE: 0635 649356 ALMOST ANYTIME

FOR A CATALOGUE DISK SEND 3 FIRST CLASS STAMPS OR 4 FIRST CLASS STAMPS
TO INCLUDE MY FISH CATALOGUE DISK & FISH 1 TO 910

ASSASSIN'S UTILITIES

1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER

UTILITIES

1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER

VIDEO UTILITIES

1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER

DOCS DISKS

1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER

1 STOCK THE VERY LATEST ASSASSIN'S GAMES DISKS

ANY 100 DISKS ONLY £75.00 inc postage

FOUNTS

1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER

DEMOS

1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER
1300 HUNT FOR THE KILLER

VISION & SOUND 2000 only £2.00

PLAY IT - HEAR IT - SEE IT - SHOW IT - READ IT - 2 DISKS CHOCKABLOCK
WILL ALMOST DO IT ALL

SMALL BUSINESS PACK only £6.00

SIX DISKS TO HELP YOU WITH YOUR FINANCES. ALMOST ALL YOU WILL EVER NEED

ALL DISKS £1.00 each INCLUDING P & P

PLEASE MAKE CHEQUES & P/Os OUT TO G. V. BROAD

PLEASE CUT OUT THIS BOX AND RETAIN THE ADVERT. WRITE YOUR ORDER
IN THIS BOX. YOU MAY WRITE ON PAPER ALSO

NAME _____
ADDRESS _____
AC _____ POSTCODE _____

AMIGA REPAIRS

Repairs undertaken to Amiga 500 computers at £44.95 inclusive
of parts, labour, VAT and return postage/packing

Commodore registered for full technical support

Computers repaired in the quickest possible time

All machines will be overhauled with a full soak-test to ensure optimum reliability

Entrust your machine to the experts, full 90 day warranty

Repairs to disk drive and keyboard also included
(extra charge possible if found to need complete replacement)

Repairs to other Commodore systems undertaken - phone for details

Upgrades and expansions supplied and fitted - phone for details

£44.95

COLLECTION SERVICE AVAILABLE

To take advantage of this exceptional offer, simply send or hand deliver your computer to our workshop complex.
address details (including this advertisement) voucher, payment, fault description, return address,
along with your daytime and evening telephone number and we will do the rest.
Should you require Group 4 Security return delivery, simply add £5.00 to the repair charge.



WTS Electronics Ltd Chaul End Lane Luton Bedfordshire LU4 8EZ Tel 0582 491940 (6 lines)

(We reserve the right to reject machines which, in our opinion, are beyond repair. Normal charge applies)

shop window

the locator



AMIGA MARKET

Classifieds..180

Second hand bargains galore

Shop Window..182

High res monitors, Disk Expander, Multimedia Toolkit,
Protext 6.0 and much more

Hard Times..189

More concise advice on
Hardware matters



classifieds



E.M.COMPUTERGRAPHIC
THE U.K.'S NUMBER 1 AMIGA FONT AND CLIPART DISTRIBUTORS - AMIGA COMPUTING ISSUE 52

Bismarckspoor Clupea *Sal*

Fully sorted and saved as brushes, ready for import directly into your programs

- | | | | |
|---|---------|----------------|--|
| EMC Volume 1 | 1 Disk | \$14.00 | Classic Bismarck Cap |
| Carols, Flowers, Military, Ships, Animals | | | Transport, Zouge, Sables, People and Christmas |
| EMC Volume 11 | 5 Disks | \$14.00 | Classic Bismarck Cap |
| People, Food, Men, Animals | | | Transport, Zouge, Sables, People and Natural |
| EMC Volume 12 | 5 Disks | \$22.00 | Classic Bismarck Cap |
| People, Food, Men, Animals | | | Religion, Horace, Office, Food and Weddings |
| EMC Volume 22 | 5 Disks | \$14.00 | Classic Bismarck Cap |
| People, Professors, Ships, Animals | | | Religion, Horace, Office, Food and Weddings |
| EMC Volume 28 | 5 Disks | \$14.00 | Classic Bismarck Cap |
| People, Professors, Ships, Animals | | | Religion, Horace, Office, Food and Weddings |

Very High Quality Buttwelded Clap Net

The quality of this clipart is absolutely **STUNNING!** These volumes contain 300 - 600 dpi scans that are extremely large. Once these clips have been reduced to a usable size in your DTP packages they will produce printouts of amazing quality. As with all EMC's clipart disks these clips are fully sorted and saved as brushes, ready for direct export into your DTP and Graphics programs.

- This catalog is an abridgement of the *Index of the Record* an annotated card file of the record. See *Index of the Record* for more details.
- EMC Volume 35** - 5 Disks - **£14.00** - **IFF Animals**
Animals and Birds, Fish, Insects, Reptiles and Exotic Animals
- EMC Volume 35** - 5 Disks - **£14.00** - **IFF Animals 2**
Animals and Birds, Fish, Insects, Reptiles and Exotic Animals
- EMC Volume 36** - 8 Disks - **£22.00** - **IFF Transport**
Transportation, Vehicles, and Modes of Transport
- EMC Volume 37** - 5 Disks - **£14.00** - **IFF Business**
Business, Commerce, and Industry
- EMC Volume 38** - 5 Disks - **£14.00** - **IFF Fantasy 1**
Fantasy, Magic, and Mythology
- EMC Volume 39** - 5 Disks - **£14.00** - **IFF Fantasy 2**
Fantasy, Magic, and Mythology
- EMC Volume 40** - 5 Disks - **£14.00** - **IFF Borders**
Borders, Frontiers, and Boundaries
- EMC Volume 41** - 5 Disks - **£16.50** - **IFF People 1**
People, Nations, and Societies
- EMC Volume 42** - 5 Disks - **£16.50** - **IFF People 2**
People, Nations, and Societies
- EMC Volume 43** - 5 Disks - **£14.00** - **IFF Sports**
Sports, Games, and Recreation
- EMC Volume 44** - 5 Disks - **£16.50** - **IFF World Map**
World Maps, Geography, and Locations
- EMC Volume 45** - 5 Disks - **£14.00** - **IFF Vampires**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 46** - 5 Disks - **£14.00** - **IFF Vampires 2**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 47** - 5 Disks - **£14.00** - **IFF Humour**
Humour, Comedy, and Entertainment
- EMC Volume 48** - 5 Disks - **£16.50** - **IFF Dogs and Cats**
Dogs, Cats, and Pets
- EMC Volume 51** - 5 Disks - **£14.00** - **IFF Birds and Insects**
Birds, Insects, and Animals
- EMC Volume 52** - 5 Disks - **£14.00** - **IFF Birds and Insects 2**
Birds, Insects, and Animals
- EMC Volume 53** - 5 Disks - **£14.00** - **IFF Animals 4**
Animals and Birds, Fish, Insects, Reptiles and Exotic Animals
- EMC Volume 54** - 5 Disks - **£14.00** - **IFF Animals 5**
Animals and Birds, Fish, Insects, Reptiles and Exotic Animals
- EMC Volume 55** - 5 Disks - **£16.50** - **IFF Flowers**
Flowers, Plants, and Nature
- EMC Volume 56** - 5 Disks - **£16.50** - **IFF Flowers 2**
Flowers, Plants, and Nature
- EMC Volume 57** - 5 Disks - **£16.50** - **IFF Trees**
Trees, Plants, and Nature
- EMC Volume 58** - 5 Disks - **£16.50** - **IFF Trees 2**
Trees, Plants, and Nature
- EMC Volume 59** - 5 Disks - **£16.50** - **IFF Plants 1**
Plants, Trees, and Nature
- EMC Volume 60** - 5 Disks - **£16.50** - **IFF Plants 2**
Plants, Trees, and Nature
- EMC Volume 61** - 5 Disks - **£16.50** - **IFF Military**
Military, War, and Defense
- EMC Volume 62** - 5 Disks - **£14.00** - **IFF Fruit**
Fruit, Vegetables, and Food
- EMC Volume 63** - 5 Disks - **£14.00** - **IFF People 3**
People, Nations, and Societies
- EMC Volume 64** - 5 Disks - **£14.00** - **IFF People 4**
People, Nations, and Societies
- EMC Volume 65** - 5 Disks - **£16.50** - **IFF Events**
Events, Festivals, and Celebrations
- EMC Volume 66** - 5 Disks - **£16.50** - **IFF Festivals**
Festivals, Events, and Celebrations
- EMC Volume 67** - 5 Disks - **£16.50** - **IFF Festivals 2**
Festivals, Events, and Celebrations
- EMC Volume 68** - 5 Disks - **£16.50** - **IFF Festivals 3**
Festivals, Events, and Celebrations
- EMC Volume 69** - 5 Disks - **£14.00** - **IFF People 5**
People, Nations, and Societies
- EMC Volume 70** - 5 Disks - **£14.00** - **IFF Education 2**
Education, Schools, and Learning
- EMC Volume 71** - 5 Disks - **£16.50** - **IFF Geography**
Geography, Maps, and Locations
- EMC Volume 72** - 5 Disks - **£14.00** - **IFF Vampires 3**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 73** - 5 Disks - **£14.00** - **IFF Vampires 4**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 74** - 5 Disks - **£14.00** - **IFF Vampires 5**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 75** - 5 Disks - **£14.00** - **IFF Vampires 6**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 76** - 5 Disks - **£14.00** - **IFF Vampires 7**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 77** - 5 Disks - **£14.00** - **IFF Vampires 8**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 78** - 5 Disks - **£14.00** - **IFF Vampires 9**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 79** - 5 Disks - **£14.00** - **IFF Vampires 10**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 80** - 5 Disks - **£14.00** - **IFF Vampires 11**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 81** - 5 Disks - **£14.00** - **IFF Vampires 12**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 82** - 5 Disks - **£14.00** - **IFF Vampires 13**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 83** - 5 Disks - **£14.00** - **IFF Vampires 14**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 84** - 5 Disks - **£14.00** - **IFF Vampires 15**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 85** - 5 Disks - **£14.00** - **IFF Vampires 16**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 86** - 5 Disks - **£14.00** - **IFF Vampires 17**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 87** - 5 Disks - **£14.00** - **IFF Vampires 18**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 88** - 5 Disks - **£14.00** - **IFF Vampires 19**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 89** - 5 Disks - **£14.00** - **IFF Vampires 20**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 90** - 5 Disks - **£14.00** - **IFF Vampires 21**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 91** - 5 Disks - **£14.00** - **IFF Vampires 22**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 92** - 5 Disks - **£14.00** - **IFF Vampires 23**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 93** - 5 Disks - **£14.00** - **IFF Vampires 24**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 94** - 5 Disks - **£14.00** - **IFF Vampires 25**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 95** - 5 Disks - **£14.00** - **IFF Vampires 26**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 96** - 5 Disks - **£14.00** - **IFF Vampires 27**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 97** - 5 Disks - **£14.00** - **IFF Vampires 28**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 98** - 5 Disks - **£14.00** - **IFF Vampires 29**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 99** - 5 Disks - **£14.00** - **IFF Vampires 30**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 100** - 5 Disks - **£14.00** - **IFF Vampires 31**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 101** - 5 Disks - **£14.00** - **IFF Vampires 32**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 102** - 5 Disks - **£14.00** - **IFF Vampires 33**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 103** - 5 Disks - **£14.00** - **IFF Vampires 34**
Vampires, Werewolves, and Supernatural Beings
- EMC Volume 104** - 5 Disks - **£14.00** - **IFF Vampires 35**
Vamp

Other Fonts and Clipart

- | | |
|---|--|
| EMC Volume 2
New structured report and jmg script. C16.50 - PC ClipArt for Paegstream
Amen, Bibles, Computers, Flowers, Animals and Angels and all more | - 6 Disks - C16.50 - PC ClipArt for Paegstream
Amen, Bibles, Computers, Flowers, Animals and Angels and all more |
| EMC Volume 3
- 2 Disks - C1. 6.00 - Paegstream Fonts | - 2 Disks - C1. 6.00 - Paegstream Fonts |
| EMC Volume 21
Angels, Birds, Cartoons, Cars, Computers, Old Line Art, School, Sports, Water Area | - 6 Disks - C16.50 - PCX Clipart for Paegstream
Angels, Birds, Cartoons, Cars, Computers, Old Line Art, School, Sports, Water Area |
| EMC Volume 32
- 6 Disks - C16.50 - IMAG ClipArt for Paegstream
Animals, Bibles, Computers, Flowers, Animals and Angels and all more | - 6 Disks - C16.50 - IMAG ClipArt for Paegstream
Animals, Bibles, Computers, Flowers, Animals and Angels and all more |
| EMC Volume 33
Lots of HIGH QUALITY People. | - 6 Disks - C16.50 - IMAG ClipArt for Paegstream
Animals, Bibles, Computers, Flowers, Animals and Angels and all more |
| EMC Volume 48
Lots of HIGH QUALITY People. | - 6 Disks - C14.00 - Color Fonts
Christmas, Bibles, Drawings, Sports, Electronics and Paegstream |
| EMC Volume 49
Lots of HIGH QUALITY People. | - 5 Disks - C14.00 - Color Fonts
Christmas, Bibles, Drawings, Sports, Electronics and Paegstream |
| EMC Volume 49
Lots of HIGH QUALITY People. | - 5 Disks - C14.00 - Color Fonts
Christmas, Bibles, Drawings, Sports, Electronics and Paegstream |

Professional Drive Form

- For use with all versions of Professional Draw
- | | |
|---------------|-------------------------------------|
| EMC Volume 18 | - 5 Disks - £16.50 - 60 PDraw Fonts |
| EMC Volume 19 | - 5 Disks - £16.50 - 63 PDraw Fonts |
| EMC Volume 20 | - 5 Disks - £16.50 - 50 PDraw Fonts |

256 *Colour Graphics for A.G.A and 24 Bit Amigas*

have the pleasure to introduce this absolutely stunning collection of photo-realistic 256 color pictures for 24 bit/AGA Amigas. These images are in standard IFF 256 format and will load directly into any 24 bit/AGA application, such as OpPaint 4.5, OpSession, ADPro etc. You can even use these pictures as Workbench backdrops on A1200/A4000's. Do you want to know of the capabilities of your AGA Amiga? Do you want to impress your friends? Believe me, you will even be impressed yourself? These images are worth upgrading your Amiga to

- [illegible]

SPECIALISING IN THE PROMOTION OF DTP ON THE AMIGA AND WINNERS OF THE 1992 AMIGA SHOPPER TOP TYPEFACE AWARD



Type 1 Fonts

For Pagestream, Publisher and Final Copy2 release 2 only.

EMC Volume 4	- 5 Disks - £14.00 - 67 Type 1 Fonts
EMC Volume 5	- 5 Disks - £14.00 - 63 Type 1 Fonts
EMC Volume 6	- 5 Disks - £14.00 - 83 Type 1 Fonts
EMC Volume 7	- 5 Disks - £14.00 - 68 Type 1 Fonts
EMC Volume 16	- 5 Disks - £14.00 - 76 Type 1 Fonts
EMC Volume 17	- 5 Disks - £14.00 - 79 Type 1 Fonts
EMC Volume 27	- 5 Disks - £14.00 - 56 Type 1's and Units
EMC Volume 29	- 5 Disks - £14.00 - 80 Type 1 Fonts

New Type 1 Font Volumes

EMC has been hard at work over the last two months converting all these fonts from MAC PD and Shareware TrueType format to Adobe Type 1 Format. These fonts are fully compatible with Pagestream, Publisher and Final Copy2 release 2.

EMC Volume 77	- 5 Disks - £16.50 - 78 Type 1 Fonts
EMC Volume 78	- 5 Disks - £16.50 - 69 Type 1 Fonts
EMC Volume 79	- 5 Disks - £16.50 - 84 Type 1 Fonts
EMC Volume 80	- 5 Disks - £16.50 - 71 Type 1 Fonts
EMC Volume 81	- 5 Disks - £16.50 - 106 Type 1 Fonts

CG Scalable Fonts

Compatible with all versions of PPage, PSetter23, WWork, WB23, Scala Optimiser and DFont 4.1 etc.

EMC Volume 8	- 5 Disks - £16.50 - 61 CG Scalable Fonts
EMC Volume 9	- 5 Disks - £16.50 - 64 CG Scalable Fonts
EMC Volume 10	- 5 Disks - £16.50 - 57 CG Scalable Fonts
EMC Volume 23	- 5 Disks - £16.50 - 58 CG Scalable Fonts
EMC Volume 24	- 5 Disks - £16.50 - 64 CG Scalable Fonts
EMC Volume 25	- 5 Disks - £16.50 - 66 CG Scalable Fonts
EMC Volume 26	- 5 Disks - £16.50 - 71 CG Scalable Fonts
EMC Volume 30	- 5 Disks - £16.50 - 59 CG Scalable Fonts
EMC Volume 31	- 5 Disks - £16.50 - 60 CG Scalable Fonts

New CG Scalable Fonts

These fonts originated as MAC Format TrueType Fonts, and have been converted from the new Type 1 Format font volumes. These fonts are fully compatible with all versions of PPage, PSetter23, PPage, DFont4.1, WB23, WWork, Scala Optimiser, and DFont 4.1 etc.

These volumes are now supplied (due to popular demand) with Postscript downloadable fonts!	
EMC Volume 82	- 5 Disks - £16.50 - 53 CG Scalable Fonts
EMC Volume 83	- 5 Disks - £16.50 - 48 CG Scalable Fonts
EMC Volume 84	- 5 Disks - £16.50 - 46 CG Scalable Fonts
EMC Volume 85	- 5 Disks - £16.50 - 46 CG Scalable Fonts
EMC Volume 86	- 5 Disks - £16.50 - 34 CG Scalable Fonts
EMC Volume 87	- 5 Disks - £16.50 - 38 CG Scalable Fonts

Computerised Postscript Clipart

This clipart is suitable for use with Pagestream, PPage 4.0

EMC Volume 12	- 6 Disks - £16.50 - EPS Clipart
Weddings, Houses, Office, Children, Military Planes, Boats, Food and more!	
EMC Volume 13	- 6 Disks - £16.50 - EPS Clipart
Buildings, Masses, Animals, Sport, Aircraft, Holidays, Chills, People and more!	
EMC Volume 14	- 6 Disks - £16.50 - EPS Clipart
Houses, Helicopters, World, Music, Biplanes, Masses/Females and more!	

NEW PICK 'N' MIX SERVICES

We are not offering you one...but TWO new Pick 'N' Mix services!

The first of these is a Pick 'N' Mix Font Service. We are the first to admit that it isn't an original idea, but we are aiming to implement it properly! For example all CG Scalable fonts will be supplied with postscript downloadable fonts (if required). The service is simply instant...just send off for one of our FREE information packs for full details.

The second of our new services is a Clipart Pick 'N' Mix service. We believe this to be the first service of its type on ANY computer platform. To date we have fed this service with 50 or so of our customers and it has already proved to be extremely popular.

So what is it? Well, basically if you are ever in need of **HIGH QUALITY** clipart on a particular subject...this service could be for you. So, for example if you are in need of a disk full of flowers, business people, medical equipment or even teddy bears...just contact us and we will create a disk (or disks) tailor made to meet your requirements.

Typesmith Demo Disk £3.50

Pagestream2 Demo Disks £9.99

OPALIVISION UPDATE DISKS £6.99

These disks contain all the very latest Opalvision programs, direct for Centaur Developments USA. The disks are updated constantly so you can be assured of receiving all the latest Opalvision Software!



E&E

Credit Cards Welcome - Same Day Delivery - £16.00 plus order charges - Please Order by 12.00 noon - E.M. Computergraphic - Cheques are subject to 5 working day clearance

E.M. COMPUTERGRAPHIC

8 Edith Road, Clacton, Essex. CO15 1JU
Tel : 0255 431389 Fax: 0255 428666



AWARD CONSTRUCTION KIT

"...the package is excellent..." **Amiga Computing** - August 1993
and **ACK** received an 85% rating in **CU Amiga** - August 1993

ACK offers Amiga users the ability to easily create customised awards and certificates. ACK comes complete with 4 headline fonts, 8 body text fonts, 3 seals and 11 borders along with 50 pre-defined award styles. All of these can be edited and mixed to suit your individual needs. ACK also offers the ability to save frequently used award styles.

The program will work on any Amiga and has an excellent 'point and click' user interface which has intentionally been designed to be simple to use. ACK is a modular programme, which gives users the ability to add new fonts and styles easily from additional ACK disks, which will be available soon. ACK is available exclusively from E.M.C., and for a special introductory period the program is available for

£29.99

Including VAT and UK postage/packing
Rest of Europe - please add £6.50 for reg. airmail postage
Rest of World - please add £8.50 for reg. airmail postage

THE MAGAZINES HAVE SAID...

Amiga Computing in issue 52 said...

"E.M.C. are the **FIRST** and **FOREMOST** Font distributors in the UK" they then placed us at...No.1 in the TOP 10 of the Amiga hardware/software chart
lan Wrigley from Amiga Shopper in issue 16 said...

"...I must say that I'm quite impressed..."

Amiga Format in issue 36 said...

"...E.M.C. have an enormous amount of expertise in the tricky area of fonts and can provide professional help and advice to customers"

Amiga Format Special Edition said...

"...the best value rescalable fonts available anywhere...there's no cheaper way of getting quality fonts"

CUAmiga in the issue of September '92 said...

"...you couldn't do much better than taking a look through the sets offered by E.M.C."

Amiga Shopper January 1992 gave Safari Fonts and EMC...

"The Top Desktop Publishing Typeface Award For 1992"

Pat McDonald from Amiga Format in issue January 1992 said...

"The best person to talk to about fonts, in the UK at any rate is Errol at E.M.C."

Amiga Mart November 1992 said...

"EMC's emergence into the cut-throat retail area has come none too soon, their service and technical backup is second to none."

EMC has no need to offer you any sort of font guarantees...

...OUR FONTS WORK!

Our competitors claim to have the largest font collections in the UK...
...YEAH RIGHT! (Maybe they should check their facts before making such claims)

AND...BELIEVE IT OR NOT, WE DON'T HAVE TO WAIT FOR EMC TO RELEASE MORE VOLUMES BEFORE WE CAN EXPAND OUR LIBRARY!

E.M.COMPUTERGRAPHIC

Font, Clipart and Software suppliers to over 4,500 happy customers!
including: MICROSPACE UK, MERIDIAN DISTRIBUTION, CENTRAL TELEVISION, MERIDIAN SOFTWARE, FIRST COMPUTERS, BILTERSCOP, AMIGA PRODUCTS, THE INSTITUTE OF MATERIALS, THE UNIVERSITY OF LONDON, ALPHABET PUBLISHING, DIGITAL MULTIMEDIA SERVICES UK, THE IMPERIAL WAR MUSEUM AND MACROVISION INTERNATIONAL.

WE ASK YOU...CAN ALL THESE CUSTOMERS BE WRONG?

EMC HAS RECEIVED MORE EDITORIALS, REVIEWS AND PROMOTION IN THE UK AMIGA PRESS THAN ALL ITS COMPETITORS PUT TOGETHER. HAVE THEY EVER HAD ANY?

...DON'T THESE FACTS TELL YOU SOMETHING?

More fonts, More Clipart, and unrivalled Tech Support!

COMPUTER SAFARI Desktop Publishing Typefaces

E.M.C. are the exclusive UK and European distributors for the HIGHLY ACCLAIMED computer typeface Safari from the DTP Typefaces.

Safari fonts are of exceptional quality, contain FULL character sets and have been highly praised in the UK Amiga press.

For those of you that have already purchased, or have information on the Safari fonts, we would like to inform you that Safari compilation packs are now available.

Full details of the Safari DTP Typeface collection are included in the EMC information pack.

To get a copy of the **FREE** EMC info pack that includes full information on our PD and Shareware font and clipart library, Computer Safari Fonts and the Award Construction Kit, SEND US AN A5 SAE WITH POSTAGE OR A 24P STAMP AND YOUR ADDRESS.

The information pack details ALL the fonts we have on offer along with full printouts, a font and clipart compatibility guide, and many example printouts from our clipart collections.

Shop Window

IDEK MF-5017 and MF-5021A Hi-res
AGA compatible monitors
Supplier: IDEK Iiyama
Phone: 0438 745482
Price: £725 and £1,225 respectively

Take a wider

Relieve some of that eye-strain with a 17-inch or its 21-inch big brother...



Ever since the arrival of Workbench 2 and its new Productivity modes, the high-end monitor market has really blossomed. Now thanks to emergence of the A1200 and 4000, more and more people are becoming desperate to exploit the myriad of new screen modes and colour combinations on offer from the AGA.

As AGA users will be all too aware, simply plugging in a PC-style monitor doesn't necessarily ensure success. In fact AGA machines require monitors which will sync down to 15.5kHz - thereby allowing access to games software and the machines boot config screen.

As a result either a bi-sync, quad-sync or better still a multi-sync monitor is essential - and invariably more expensive than its bog standard PC counterpart.

To say that the necessity for precise monitor specs has caused a little confusion would be something of an understatement - however things have improved with the release of the Commodore 1942 bi-sync which offers AGA compatibility along with a reasonable asking price.

However the 1942 still doesn't support all the available modes, and form a design point it's slightly limited by its 14in screen. Enter the IDEK duo at a whopping 17 and 21 inches respectively.

As you've probably spotted, neither monitor offers the cheapest monitoring solution for the Amiga but to be fair monitors of this screen size are invariably meant for high end applica-

tions. Although fairly pricey in Amiga terms, both models are at present retailing at a much reduced price tag specifically to capture some of the Amiga market.

When contacting for more information on either monitor be sure to stress that you are an Amiga owner - only then can you buy them at the prices listed above.

If you do not mention your Amiga affiliation you'll be quoted the normal retail price of £1,054 for the MF-5017 and £1,764 for the MF-5021A.

Starting with the larger of the two models, namely the MF-5021A, there's a mixture of good and bad news. On the plus side is the truly huge and almost completely flat 21in screen.

Also, along with the huge dimensions comes a slightly disappointing 0.31 dot pitch - a figure which real terms means a very

slight fuzziness to the overall image when running in higher screen resolutions. Although not exactly a plus for CAD-style applications the relatively high dot pitch has no effect on the area in which the 5021 is best suited, namely presentation.

Unfortunately, for day to day use it wouldn't be my first

Christmas plus Frames & Borders

Bit-mapped mono clip art
Supplier: Artworks
Phone: 0469 588138
Price: £7.99 per disk

When it comes to clip art, the Amiga is fairly well blessed with a seemingly endless supply of disks crowding the quarter page advertisements around the PD pages.

As a result, the prospect of forking out almost £8 on a commercial Amiga may seem a tad unnecessary.

However like anything else you have to invest for a quality product, and that's exactly what's on offer from Artworks - a company that's already responsible for a library of 12 disks that have been widely accepted as the best bit-mapped clip art available for the Amiga.

Like the Multimedia CD-ROM mentioned earlier, both Artwork disks are well constructed with accompanying posters showing

all the clips at a glance. The disks themselves also assist selection via auto-booting slideshows which run through the entire contents of the disk.

The only real limitation of the collection is the strictly bitmapped file format which means scaling does degrade image quality. Having said that, it must be stressed that both disks contain probably the highest quality images I've yet encountered.

As you've probably spotted, the titles

leave little to the imagination with the Christmas disk providing the usual array of Yuletide classics such as a showmen, snowflakes, crackers and decorations, all itching to play a part in the silly season as festive newsletters, faxes, flyers and so on.

As for Frames & Borders, usage may not be as obvious, but if you're looking for a means to glamourise your letter heads or perhaps improve the impact of general DTP the disk provides a very useful library of bolt-on extras which work well in concert with the aforementioned Christmas disk, adding a little sobriety to the it potentially tacky cinsel-town exploits.

In addition to DTP, both disks could also play a part in desktop video as the bitmapped design means importation into text packages or presentation systems such as Scala couldn't be simpler.

For the purists the disks also have the added bonus of originality as Artworks insist that all their images are original



creations with no preliminary scanning whatsoever.

As for value for money, the collection does fairly well, with each image costing approximately 4.5p - which considering the three to four month generation time isn't exactly manic profiteering.

All in all, a good investment for any serious Amiga artist/publisher who doesn't mind paying for a quality product. However I'm sure that Artworks would enjoy improved sales if their collection was on offer as more than just bitmaps.

Each disk contains 15,640 x 512 hi-res mono pages accommodating between four and ten individual images per page.





Shop Window

view

choice, not only because of the dot pitch but also its rather annoying dislike for multitasking which means that flipping between programs results in dramatic pin cushioning effects, demanding repeated screen adjustment to maintain an optimum display.

Moving on to the MF-5017, and the outlook is brighter. Like its larger counterpart, IDEK's 17in alternative is a true multi-sync which will happily go down to the essential 15.5kHz.

Fortunately, unlike its big brother the 5017 has no pin cushioning problems when flipping screens. Unfortunately, however, the dot pitch remains the same at 0.31 – but it must be stressed the fuzziness apparent on the 21in model appears all but gone on the smaller 17in screen.

On the control side the smaller model does lack some of the finer points on offer from its brother such as degauss, the PCC or pin cushion control, and no RRC or raster rotation control.

The degauss feature simple de-magnetises the tube by sending a charge which removes any latent magnetism that could be degrading the picture.

PCC simply allows adjustment of the vertical distortion which can occur when hopping between screens, while RRC ensures the image is square in relation to the screen.

Although I've delivered a fairly harsh account, both models still remain a reasonable investment – especially considering the discount. However, if you're serious about dramatically improving your display, adding an RTG or retargetable graphics card such as Picasso or Piccolo in addition to an IDEK is a very wise move.

● For more information on IDEK and RTG combinations contact Macro-Pace UK Ltd on: 0753 551 888



Multimedia Toolkit

Multimedia CD-ROM for CD32 and CDTV

Supplier: Weird Science

Phone: 0533 340682

Price: £19.95

It's been a long, long, time since I've experienced even the slightest excitement at the prospect of reviewing a CD-ROM. However with the arrival of the Multimedia Toolkit, apathy is now a thing of the past.

After just a few minutes with the aforesaid CD even the most hard-bitten hack would be transformed into a quivering mass of expectation as the seemingly endless supply of graphics and sounds spew forth from the 600Mb of this impressive multimedia library.

It's not only the number of files but also the variety and overall quality of the collection that impress. To put things into perspective, the disc contains over 10,000 files which break down into 500 original 24-bit images with both Ham8 and HAM interface variations, over 1,308 examples of coloured clip art, another 2,139 in mono – and let's not forget the 214 icons.

Fonts also play a part with 195 standard fonts, 120 colour fonts, another 107 Adobe fonts, 80 PostScript, 79 Compugraphic and 93 examples of scalable clip art. On the sound side, 750 tracker modules await plus 2,300 samples covering every noise and instrument imaginable.

With so many files and such diversity, accessibility has to be given serious consideration. Thankfully in the case of CD Toolkit any file is only a few mouse clicks away thanks to an option and requester selection system that makes data retrieval a doddle.

As you'd expect, each category of file has its own directory structure which is navigated in the



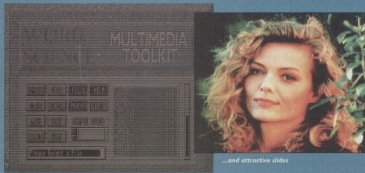
the CD Toolkit is very well presented

usual mousy manner. When a specific file is located it can be auditioned by a double mouse click or via a selection of view, hear and play buttons on the left of the requester.

As for compatibility, again there's little to complain about with the CD operating on both CDTV and CD32 in addition to limited access via a PC CD-ROM drive.

With the expansion options such as floppies, hard disks and keyboards yet to appear for the CD32 it remains fairly useless for the existing CD32 user base – however when the promised add-ons appear it will be an essential part of any system capable of CD support.

As you're probably aware, CD32 technology is promised for the entire range, but alas it's very unlikely to appear before spring 1994. However, when the inevitable happens any serious Amiga user involved in either video, DTP or general multimedia would be mad to miss out on this truly excellent produce.



Handy slideshow utilities...



Disk Expander

Disk doubler automatic data compression
system for hard and floppy disks
Supplier: Micro-PACE UK
Phone: 0753 551888
Price: £39.95

So-called "disk doubling" is a technique the PC world has taken on board since the release of DRDOS 6.0 which offered it as standard, and one which has become increasingly common.

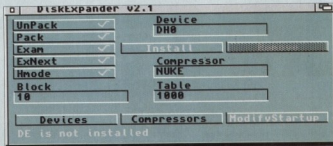
The technology of automatically compressing and decompressing data whenever a drive is written to or read from makes for the most effective use of storage space, and if used correctly can in effect increase the size of a hard drive.

The PC world has acted as a large test lab for disk doubling to the extent that the algorithms used in compression have all been thoroughly tried and tested. Many, notably the LZ routines, have cropped up in packer programs such as PowerPacker and Imploder, both of which have superb levels of reliability.

Amiga users should therefore feel relatively comfortable with the idea of a hard drive consisting in part or in whole of crunched and compressed data, but the idea of automatic compression is still one which causes a few nervous twitches.

For some reason, we all start getting jumpy and expecting files to be garbled or corrupted just because the Amiga is doing the compressing in the background.

In reality, how many of us have packed a program, then found that the crunched file no longer runs! This has never



Options galore
to control the
compression
process

happened in the history of Amiga Computing. CoverDisks despite the fact that we have always made extensive use of crunchers and archivers, so there is no reason why the same compression routines should work any less reliably when utilised by a disk doubler.

Disk Expander is the first commercial Amiga disk doubler and as such it has a lot of ground breaking to do. Supplied as a single disk and manual, the program is a modest collection of three utilities and a collection of libraries offering a variety of compression formats.

Users must install the program before it can be run, at which point the initialisation process writes to the original disk, which makes this one of the only productivity releases ever to feature limited on-disk copy protection.

Installation can be to hard or floppy disk drive, and in the latter case Disk Expander will compress the target floppy until there's enough space for itself, so it is possible to install to an already full Workbench disk.

Most users of Disk Expander, though, will want to make the most of a hard drive which may have seemed huge when first purchased but which has since begun to creak under the

strain, and the program's simple approach should make this an easy task.

The central utility - Disk Expander itself - is activated from Workbench (although there is a CU option) and can be started either as the first line in a startup-sequence or once the machine has booted.

When run, a number of options are available to customise the way in which data is compressed or to choose the default drives for compression.

Entire devices can be selected and their contents processed, or individual drawers can be targeted for squashing. For instance, users with huge directories full of 24-bit files, sound samples, or other space-gobbling data can choose just to target the most bulging parts of their hard drives.

There is a limit to flexibility, as automatic compression/decompression works only on proper devices, and will not work with a directory which has been made into a logical device using the assign command, so for selective doubling the user must resort to the Device Packer program.

This utility can crunch all the data presently in a directory, thus saving acres of space, and so long as Disk Expander is running in the background the files can be accessed as normal.

Several parameters available through Disk Expander's front end give the user full control over this sort of operation. Each device can be set to pack, unpack, or both, and switch between the way a directory is displayed.

To avoid confusion, files can also be shown by the Disk

A1200 Insider Guide

Beginner's guide to the A1200
Supplier: Bruce Smith Books
Phone: 0923 894355
Price: £14.95

The latest Amiga Insider Guide, its publishers claim, is the best selling Amiga handbook ever, and though we have no way of checking this claim there is no doubt that this is the most popular A1200 guide presently on the shelves.

Reasons for this aren't difficult to find, and a quick glance through the book's 24 chapters should be enough for most users to pluck it from the book case.

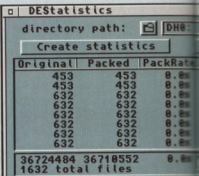
Starting from the point of view of a completely new owner and aiming consistently at practical advice and projects, the book takes the uninitiated from explanations about what Workbench is through simple copy

commands, to script editing. Along the way, users are introduced to icon editing and creation, icon tool types, most Workbench functions and prefs settings, printers, and printer setup.

There are several good illustrations, using screen grabs, to walk readers through tricky subjects such as installing a new printer driver, and so on.


Fonts, commodities, CrossDos, and multitasking are also covered, giving the book enough subjects that it should continue to be useful after a first reading.

There are places in which the subject matter could be better covered or treated in a more in-depth fashion, and one or two places where you are left wishing there had been more to a particular chapter, but overall the A1200 Insider Guide should be a useful and enlightening first book for all A1200 owners.



Generate full statistics on a target drive

The ad makes no sense...



Listen up you
scruffy, bearded Santa
Claus rip-off! Dip your hand in
your filthy pocket and stump up the
cash for **Amiga Action**.

*Frontier, Stardust, Wonderdog,
Overkill, King's Quest VI* – they're
all in it, and so's the chance to
win a **CD32**, plus full solutions
to top games.

**AMIGA
ACTION**

On sale from Nov 18th

...but buying the mag makes loads!

TECHNOSOUND TURBO 2

ADVANCED SOUND SAMPLING SYSTEM

- Direct to hard disk recording
- Built-in tracker
- Pull down menus
- Sequencer
- Controllable effects
- Digitiser
- 18 realtime novelty effects including Pinky & Punky - Sex Change - Deep Sea Diver - Alien - Top Gun - Chopper - Dark Vader - Bruno - Awful the Duck - Nightmare on Oak Street - all great fun to use with a microphone

"The quality is outstandingly good" - *Future Music*

86%



£49.99 RRP

Also Britains No.1 entry level sampler

TECHNOSOUND TURBO £39.99 RRP

TT2 Upgrade Kit available to existing Technosound users - only £16 - phone for details

Orders/enquiries to:
New Dimensions, Brooklands House,
Bryngwyn, Raglan, Gwent NP5 2AA.
Tel: 0291 690933



Cheques/Postal Orders
Payable to 'NEW DIMENSIONS'
(Postage FREE)



"For this price you can't really do much better" - *Amiga Format*

88%

THE U.K.'s LARGEST
COLLECTION OF
FONTS

SELECTAFONT

THE U.K.'s MOST
INEXPENSIVE
FONTS

PIC n MIX
from over 80 Disks in ADOBE
or COMPUGRAPHIC Format.
Each Disk contains 12 Fonts and
Costs between
£1.70 and £3.00

NEWSFLASH

over 250
NEW FONTS
recently
added.

PRO PAGE V2.1V3/4
PAGESTREAMPAGESETTER V2V3
OFFICE PAGEWISERGETR V1.1V2
PENAL COPY 2/THE PUBLISHER
PENAL WRITERPROTECT 4
PRO-CALC/PAGESTREAM V2V3
ART EXPRESSION/PRO DRAW V2V3
PRO WRITERANGE PROPORT

We have over 2000 Fonts
available which is by far and
away the biggest collection in the
UK. Whilst some of our
competitors feel that they may
have a unique collection of fonts,
we would advise you to

COMPARE CATALOGUES
COMPARE PRICES
COMPARE SERVICE
COMPARE HELP-ADVICE

before you part with your money
WE LEAD....
THE OTHERS FOLLOW

EACH FONT COSTS
BETWEEN 13P-25P
BEAT THAT!

NEW!

INKJET/BUBBLEJET SERVICE
We guarantee that the PREMIER ink refills
that we supply will give a better quality
output than your Original Cartridge or
your money will be refunded

Single Refills £6.99 } available in Black/Cyan
Twin Refills £12.99 } Magenta/Yellow/Brown
6 Pack Refills £24.99 } Green/Red/Blue

We also stock a large range InkJet/Bubblejet
consumables including ORIGINAL CARTRIDGES
CLEANING KITS and COLOUR KITS

We have used Ink-Jets for 3 years, so we are well
aware of customers needs. We also stock a wide
range of DTP s/w, and can give superb backup...
we use all the s/w that we sell!

**STARBURST
POWERUNER**

WANNY'S BUILDINGS

**HEADHUNTER
CARPENTER**

PHONE AN INFO-PACK SERVICE:
TEL 0702 202835
24 HOUR SERVICE.

FOR A COMPREHENSIVE PRINTOUT OF ALL FONTS
AND DETAILS OF OUR OTHER SERVICES, PLEASE
SEND A LARGE SAE WITH 36P POSTAGE. (OR PHONE
FOR THE INFO PACK) PLEASE INCLUDE DETAILS OF
YOUR SYSTEM AND THE SOFTWARE YOU USE.

SELECTAFONT (DEPT AC)
84 THORPE ROAD, HAWKSWELL,
Nr HOCKLEY, ESSEX. SS5 4JT



ACCESS/VISA/MASTERCARD
and all major Credit Cards accepted
Cheques/P.O.s payable to SELECTAFONT
CREDIT CARD HOTLINE: 0702202835

HARD
TIMES

With Christmas almost
upon us, Hard Times takes
the pain out of investing
in a hard disk

SYSTEM DISK

Whenever the machine is turned on with a hard disk installed and no floppy present, the hard disk immediately becomes the system disk, and as a result the machine will attempt to boot from it and from then on will look to it for all the files asked for either by you or your software.

The point is that you must be able to manage your hard disk properly by making sure that what the Amiga requires is available and in the right place. For this reason alone a directory manager is essential.

Fortunately there's a lot of choice in this area with several programs in the public domain plus the odd commercial alternative. Notable PD programs including TDM and SID2 – both of which have been on past AC CoverDisks – while the commercial offerings include Directory Opus and Directory Manager.

For the beginner a PD program should be more than enough as it simply makes the process of copying, moving and managing files much easier. If however you feel confident enough to handle the process via the CLI/Shell, feel free.

In addition to file management it's essential you become comfortable with the AmigaDOS assign command as it's often invaluable to anyone using a hard disk.

Assuming you've decided to take the plunge, what's next? Should you go for a SCSI or an IDE? Do you have a choice, and if so what's the difference? Well although a slightly complex subject, these are the basics. If you own a machine that runs on Workbench 2 or below you have the choice between IDE and SCSI, the essential difference being that SCSI devices are generally a little faster and more expandable, while IDEs are usually a lit-

tle cheaper. For the average user the difference in speed is barely noticeable, especially if you've just upgraded from a floppy system. The thing to bear in mind is that speed in relation to hard disks is totally different to what you're use to.

For example, in floppy terms speed is usually gauged in minutes or seconds, while hard disks are compared in milliseconds.

In simple terms this means that software loaded on an IDE drive will take longer to load in relation to the average SCSI with the effect increasing when writing to the disk.

For example DPaint may take 2 to 3 seconds longer to load on an IDE. Obviously this is a very rough guide but it does illustrate the difference in relative speed between the two formats.

On the expansion side an IDE will support a maximum of two

drives from one controller while SCSI stretches up to seven. In addition, a SCSI controller will also accommodate other media such as scanners, tape streamers, opticals and laser disks – unlike IDE which is strictly limited to hard disk control.

Although a real advantage to serious users, the speed and flexibility of the SCSI standard is not really an issue for the average punter. After all, can you see yourself lashing out for a single extra drive, never mind six?

Before handing over any cash, here's a list of essential questions you should put to your supplier.

First and foremost ask whether the unit is IDE or SCSI. If the unit is an IDE ask if the drive – minus the controller card – would fit into either an A600 or A1200. This is worth knowing even if you're planning to use the drive externally on a older machine because if you decide to upgrade later on you won't necessarily need to invest in a new drive.

When buying an A500/500 Plus external drive ask if memory can be added to the drive, and if so, can the machine still use this additional RAM when the hard disk is turned off!

If the drive you want operates without a power supply, enquire if there is an option to add a power supply if necessary. This may be essential if you plan to use the drive with additional peripherals as the strain on the machine's internal power may be too much.

EXPANSION

In the same vein, ask if the drive offers a DMA pass-through. If not it will be impossible to use additional DMA devices such as scanners or RAM expansions unless they offer a DMA through option allowing the drive to be appended to them.

If you opt for a SCSI device and wish to take advantage of its daisy-chaining potential, ensure that the drive has a SCSI thruport. If not, you won't be able to expand later on unless you buy another controller card.

Remember to ask about the speed of the drive. Query the drives access time in milliseconds. The fastest drives run at about 11 milliseconds with 17 being the norm for IDEs – anything above 20 is pretty sluggish.

If you're planning to buy a second-hand unit, make sure that the original formatting and prep software comes as part of the deal. If disaster strikes and you're forced to re-format your drive, finding appropriate software can be very difficult, especially on older models.

The same applies to a new drive. If the drive comes pre-formatted you must insist on a copy of the prep software.

Finally when buying a drive make sure you have at least 2Mb of memory in total. As Commodore found out to their cost with the A600HD, 1Mb machines fitted with a hard disk won't run some 1Mb games simply because a certain amount of RAM is required to boot the hard disk and Workbench, as a result many 1Mb games were rendered useless.




Super Sound^{v4.5}

Super Sound is THE best sampling program you are going to find ANYWHERE for less than a tenner! Don't just take our word for it, Super Sound IV, has recently been reviewed in both Amiga Computing and CU Amiga.

"SuperSound 4.12 is one of the most advanced sample editors available, easily surpassing the standards of any budget sampler." - Tony Horgan, CU Amiga Top Rated, September 1993.

"It's got a professional button-like look about it, tasteful and functional use of colour, and the impression of enough features to sink the Titanic!" - Phil Morse, Amiga Computing, October 1993.



- Sampling/Paste facility
- Realtime Oscilloscope monitor
- Compatible with most samplers including: Technozone Turbo and T22, Triangle Stereo Sampler II, Megabyte Master (inc. VIDI 12 S+V), CVP Disk II, Stereo Master, CU Amiga project, Audio Engineer, and any other generic sampler.
- Uses Chipset FAST memory for samples
- UNDO feature
- Easy to use editing tools
- Supports stereo & mono
- Fully IFF compatible
- Multi-tasking
- Compatible with ALL Amiga's
- Works fine with 'Mungall' and 'Tubular'
- Extra programs included, FREE!
 - Sample key-word Player
 - The Realtime Effects Generator II
 - 'Pulse' powerful dual-channel sample player
 - Hard Drive Installer
- 100-page manual available with tutorials, full reference, glossary, DIY sampler and free sample data

PRICES AND POSTAGE...

Super Sound products:

Software	£5.00	
Manual	£11.00	

Super Sound updates:

From version 3.x to £2 + old disk	UK	£1.00
From version 4.x to £1 + old disk	Europe	£2.00
	Rest of World	£5.00

Software

Mail order only. No Credit Cards please.
Cheques and P.O.s payable to:
KBE Software
Dept AC
12 Salters Close,
Warrington,
Staffs, ST9 0DB.



KOBRAHSDFT PD SOFTWARE

For FAST service and the best value in PD. Thousands of titles available for the ASTU Rom Drive (e.g. Fred Fish disks 1-890), the entire Scope Collection 1-220 (with Cat), ASD3 Archives, dozens of games, books, utilities and much more!

PD PRICES

1-9 disks, £1.50 each	20+ disks, £1.10 each
10-19 disks, £1.30 each	For Catalogue Disk, send 75p
Unbranded 3.5" blank disks D5/D0	Verbatim 3.5" blank disks D5/D0
10 £8 + 75p P+P	10 £8 + 75p P+P
20 £11 + £1 P+P	20 £14 + £1 P+P
>20 £10 + £2 P+P	>20 £12 + £2 P+P

Send cheques/P.O.s to:

"KOBRAHSDFT", Pleasant View, Hulme, Hulme,
Longton, Stoke-on-Trent ST3 8BH
WE ALSO ACCEPT ACCESS AND VISA
Overseas P+P, Europe add £1, Others £2
For more information, please ring 0782 305244



VISA

Amiga-64-Link

- Links C64 peripherals to Amiga parallel port
- C64 Not required

Connects C64 printers to the Amiga

- Supports MPS, DPS, VIC, Star, Brother, Seikosha & Citizen printers
- Graphics output on dot-matrix printers
- Works with all software

Transfers C64 disk files to the Amiga

- File transfer programs
 - Read/Write text, binary & program files
- Standard 'Ami-64-Link' £35.25 Prices include VAT and delivery
Budget 'Ami-64-Link' £23.50 Budget stops multi-tasking during printing

York Electronic Research (0904) 610722
The Paddocks, Jockey Lane, Huntington, York YO3 9NE

AMIGA REPAIRS FIXED PRICE £39.95*

Includes VAT and return postage.

COMPUTERS AND PERIPHERALS OF ALL MANUFACTURERS REPAIRED
CALL FOR PRICES ON OTHER SYSTEMS

Return Amigas to:

Everite Limited

Vulcan House, Restmor Way, Hackbridge Road, Hackbridge, SURREY, SM6 7AH. Tel: 081 773 8123
Include: Fault Description, Daytime Tel. No., Return address and CQ payable to Everite Limited.
Dealer accounts welcome

* Fixed price for £500/+

GLOBAL PD

GLOBAL PD
PO Box 1000
Stanford-le-Hope
Essex SS17 7DW

Tel: 0375 676048
or 0375 675721
(10am-4pm Mon-Sat)

Please make
cheques/postal orders
payable to "GLOBAL PD"

We stock a huge range of
AMIGA public domain software.
Over 10,000 titles available.
Swift and helpful service.
Same day dispatch*.

* Excluding cheques.

Send 80p or a blank disk & 1st class stamp
FOR OUR CATALOGUE DISK

All disks are £1.00 each. Postage & packing 75p
Choose an extra free disk for every £6.00 spent!

EXCLUSIVE PD

The friendly PD service for all
Amiga users - something for everyone

7 Beresford Close, Watlingtonville,
Hampshire PO7 5JY. Tel: 0705 643489
Office hours: 10am-7pm Mon-Fri, 10am-5pm Sat

we offer:

1000 Legal Traps
Field Field
Panic Panic
APPC
The Amiga
Amiga Games
TABS
Book Magazines

Plus a wider variety
of software for all
Amiga users including
Amiga only software
Full comprehensive
Catalogue Disk
available for 80p or
1st class stamp

DESKS

Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+

UTILITIES

Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+

MUSIC

Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+

GAMES

Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+
Amiga 500/500+

Prices £2.00 per disk for non members, £1.00 per disk for members.

Postage: UK 50p, Europe add 25p per disk. World add 40p per disk

Cheques payable to Exclusive PD

For convenience, Exclusive PD operates a monthly
bulletin service for its members to ensure you are
aware of all new software as it is available. Please
for full details of the benefits of membership

IF WE HAVEN'T GOT IT ... WE'LL GET IT AT NO EXTRA CHARGE

FAST QUALITY AMIGA REPAIRS

Upgrades + Engineering requirements

SAME DAY SERVICE

£34.99 + parts
(comps in by 11am)

NORMAL SERVICE

£24.99 + parts
(Typically 24 hrs)

Door to door pick up + delivery anywhere in the U.K.

HCS ENGINEERING
144, Tanner St., Tower Bridge, London SE1 2HG
Tel. 071-252 3553

Central
London

Repairs on:

A500, A500+, A590, A600,
A1200, A1500, A2000,
A3000, A4000

Plus Amiga add on hard
drives and monitors.

Spares also available

500,000 COMPUTER GAMES

surplus stock sell-off!!! top selling games
FROM ONLY £1 EACH

AMIGA, ATARI ST, PC,

C64, SPECTRUM, AMSTRAD

just send one first class stamp telling us what computer you have and
we'll send you a full list of available software at prices you won't believe to:
Surplus Software Sell Off, Dept 93, 6 Mercury House, Calleva Park, Aldermaston, Berks. RG7 4QW
THIS IS NOT PD OR SHAREWARE SOFTWARE, ALL GAMES ARE SHOP SURPLUS

500,000 COMPUTER GAMES

Power Computing's latest 32-bit memory expansion for the Amiga 1200 is now available. The PC1208 combines exceptional value with incredible features. The original PC1204 4MB 32-bit memory expansion is still available, and is exceptional value.

Simm Technology - The PC1208 uses the latest industry standard 32-bit SIMM technology which allows you to use 1MB, 2MB, 4MB and 8MB modules.

Zero Wait State - The PC1208 never leaves the processor waiting around for data. Meaning your Amiga 1200 will run at its maximum speed. Simply adding either a PC1204 or PC1208 to your Amiga 1200 will increase its processing speed by 219%.

Real-Time Battery Backed Clock - Allows files to be date-stamped with the correct time and date so that you know exactly when they were created.

Ultra Fast FPU - With the addition of a maths co-processor intensive maths operations will be accelerated by up to fifty times. The PC1208 is the only memory expansion which offers the capability to take either PCSA or PCC type FPU's.

Easy To Fit - Fitted in minutes without the need to remove the computer's case. Does not effect your warranty.

PCMCIA Friendly - Unlike other expansion boards the PC1208 does not conflict with your Amiga 1200's card slot, using the PCMCIA friendly jumper even on 8MB SIMM can be used.

PC1204 with 4MB RAM

PC1204 with 4MB only	£185.95
PC1204 + 68881 20MHz Co-Processor	£219.95
PC1204 + 68882 20MHz Co-Processor	£235.95
PC1204 + 68882 33MHz Co-Processor	£259.95
PC1204 + 68882 40MHz Co-Processor	£279.95
PC1204 + 68882 50MHz Co-Processor	£319.95

PC1208 with a choice of bare, 2MB, 4MB or 8MB RAM

Bare	PC1208 with 2MB
PC1208	£69.95
PC1208 + 68881 20MHz	£96.95
PC1208 + 68882 20MHz	£109.95
PC1208 + 68882 33MHz	£119.95
PC1208 + 68882 40MHz	£139.95
PC1208 + 68882 50MHz	£179.95

PC1208 with 4MB

PC1208 + 68881 20MHz	£240.95
PC1208 + 68882 20MHz	£269.95
PC1208 + 68882 33MHz	£285.95
PC1208 + 68882 40MHz	£305.95
PC1208 + 68882 50MHz	£347.95

PC1208 with 8MB

PC1208 + 68881 20MHz	£419.95
PC1208 + 68882 20MHz	£439.95
PC1208 + 68882 33MHz	£465.95
PC1208 + 68882 40MHz	£489.95
PC1208 + 68882 50MHz	£530.95

The PC1204 & PC1208 Memory Expansion for the Commodore Amiga 1200.



The XL 1.76MB Internal & External Drive for the Commodore Amiga.



Power Computing's XL 1.76MB Drive* for any Commodore Amiga is now available. The XL Drive includes these many features:

Formats to 1.76MB - Using high density disks you can fit a massive 1.76MB on each disk.

Acts as a standard drive - Insert an 880K Amiga disk and the drive behaves like any other Amiga drive.

Fully compatible - Will read and write disks written on an Amiga 4000 internal high density drive.

Compatible with PC disks** - Also read and write high density PC disks using a suitable device driver.

Compact size - No larger than a standard 880K floppy disk drive.

High quality design - Uses a high quality Sony high density mechanism.

Easy to Fit - The external XL Drive simply plugs into the floppy drive port at the rear of your Amiga. The internal XL Drive simply replaces or adds to your existing drive(s). These drives can be installed in minutes and no soldering is required.

Software compatible - The XL series is fully compatible with all existing hardware and software.

External XL Drive £79.95
Internal XL Drive £75.95
A4000 Internal XL Drive £79.95

*Requires Kickstart 2 or above. **Requires Workbench 2.1 or above.

Next day £5, 2-3 days £2.50

Saturday delivery £10

Specifications and prices subject to change without notice

All Trademarks acknowledged. VAT included. E & OE



Power Computing Ltd
 Unit 8 Railton Road Woburn Road Industrial Estate
 Kempston Bedford MK42 7PN
Tel 0234 843388 Fax 0234 840234

Goods are sold subject to our standard terms and conditions of sale and are available on request.

New

Vidi Amiga (24)

RT

Real Time 24-bit Colour Digitiser

If you're looking for the ultimate in 24-bit image capture & editing, then look no further! Vidi Amiga (24) RT offers you features and specification unmatched by any rival. And what's most important is its compatibility. Vidi Amiga (24) RT will work on all Amiga's including A500, 1200 etc.

Finally compare our pricing and I am sure you will agree that no other company can offer you so much for so little!

SOME OF OUR FEATURES..

Image capture at up to full overscan video resolution in all AGA colour modes. Display images up to 1472 x 576.

ANIMATION:

Fully featured Swipe & Play animation workstation.

POWERFUL IMAGE PROCESSING:

Average, Balance, Blur, Brightness, Contrast, Convolve, Drop RGB, Edge Detect, Emboss, Equalize, Exposure, Flip X/Y, Gamma Correction, Negative, Quantize, Saturation, Cut & Paste.

FILE SUPPORT:

24-bit Amiga formats, All AGA Modes, ILBM, ANIM, BMP, PCX, & TIFF.

COMPATIBLE WITH:

Workbench 1.3, 2.0, & 3.0.
Composite, SVHS or Y.C. sources.
A500, A600, A1200, A1500, A2000, A3000, A4000.

Vidi Amiga the Worlds best selling Amiga Digitiser!

These Images represent the quality of output achievable using Vidi Amiga (24) RT



ONLY
£254.47
or £299 inc.



A1200
COMPATIBLE

Rombo, Kirkton Campus, Livingston, SCOTLAND, EH54 7AZ.
Tel: (44) 0506 414631

Fax: (44) 0506 414634

