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ATARI ST USER

November 1993

Issue 93

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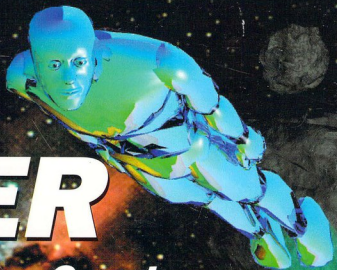
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Data Pulse Plus



Data Pulse Plus is a range of High Quality, High Density, Data Storage Devices, developed exclusively by Ladbroke Computing International.

The Data Pulse Plus range consists of various high density, high speed SCSI storage mechanisms based on the Data Pulse Plus Sub-System. This Sub System has been extensively developed to reduce noise and maximise ease of use and reliability.

"Well constructed and designed for ease of use utilising highest quality mechanisms"

Darren Evans, ST User

The Data Pulse Plus Sub System features a custom designed case of dimensions: 300mm x 295mm x 51mm (wdh). The power supply unit is housed internally providing a reliable power source for drive mechanism, host adaptor and Fan (Floptical & Floptical combinations only) without placing extra strain on the ST's PSU. The full metal case fully shields the internals from interference and surrounding equipment from radiation. It is also ideal for use as a monitor stand.

The ON/OFF switch is mounted on the front of the case along with the SCSI device number selector and a bi-colour LED which displays power on and Drive Busy status.

All Data Pulse Plus ST Drives include the acclaimed ICD SCSI host adaptors. Full manuals are also included detailing hardware specification, setup and trouble shooting.

To ensure the highest possible reliability, the drives are tested at every stage of assembly by skilled technicians. We also format, partition and install a bootable driver as part of the test procedure to ensure that the drive is ready to 'Plug in and Go' when you receive it. When you first boot up your hard drive you will find a wealth of Public Domain Utilities which have been selected by our support staff as particularly useful.

All Data Pulse Plus drives include 12 months warranty and free phone

advice and support by genuine Data Pulse Plus users.

The entire range of Data Pulse Plus Hard Drives are based on the highest quality mechanisms available. Quantum, Maxtor, Fujitsu, Insite, mechanisms are used, each of which feature a MTBF (Mean time between failures, measured in Power On Hours) in excess of 30,000 hours. All SCSI mechanisms used are 3.5" wide and just 1" high and are chosen for their performance and low power consumption.

The Low power consumption of these mechanisms means that they can operate well within their safe operational temperature ranges without the need for Fan cooling. This coupled with the design of the case results in probably the quietest Hard Drive range available for the ST.

All Hard drives are Autoparking, reducing the risk of head crash or damage during transit. All drives also come configured to be Autobooting.

All Data Pulse Plus drives for the ST now include the ICD LINK host adaptor. This external adaptor plugs into the SCSI port at the back of the drive. This configuration allows the drive to be used with any computer

you may upgrade to in the future such as the Falcon 030.

Floptical Drives are capable of storing over 20Mb of un-compressed data on a single 3.5" Floptical disk. The Floptical disks store data magnetically just like a normal floppy disk but the positioning of the read/write heads is far more accurate due to an Optical positioning system. The Floptical Drive positions its heads using ultra fine guide tracks embedded in the Floptical disk surface. Using this positioning system, the Floptical Drive is able to store data on up to 1240 tracks per inch, compared to the 135 tracks per inch of a normal 3.5" floppy disk.

The Floptical Disk Drive combined

Hard
Drives

f
Optical

"Data Pulse is astonishingly fast"
Andrew Wright, ST User

with specially Up-dated ICD software can access the 21Mb on a Floptical disk and also Read and Write 720K and 144Mb 3.5" Floppy disks.

The Drive has an average access time of 65ms and a data transfer rate of 200K per second (6 times faster than Floppy disk).

The Floptical Drive is available as a stand alone unit, an upgrade for existing Data Pulse and Data Pulse Plus owners or as a combination unit coupled with any capacity Data Pulse Plus Hard Drive.

Each Floptical drive includes one 21Mb Floptical disk. As

many extra Floptical Disks as you require are available at a very low £ per Mb rate.

The Floptical drive is an ideal backup device for large hard drives. Coupled with a backup utility such as Diamond Back II which features compression you can back up more than 30Mb of data per Floptical Disk.

The Datapulse Plus Re-Writable 128Mb Optical drive is a new addition to the Data Pulse Plus range. This drive features 30ms access time, 600K per second data transfer rate and 128Mb of data stored on one 3.5" Optical disk.

The disk rotates at 3600RPM giving hard drive performance with replaceable media flexibility. As with all Data Pulse Plus drives the mechanism is low power and does not require a fan. Data Pulse Plus Optical is fully compatible with the LINK and the FALCON 030 using ICD PRO utilities (ideal for direct to disk recording). Each Optical disk gives very high £ per Mb value.

All Data Pulse Plus Falcon drives come complete with SCSI 2 cable and cost £50 LESS than the prices quoted below. All Data Pulse Plus hard drive/floptical combinations for the Falcon come complete with SCSI 2 cable and the ICD PRO Utilities and cost £10 LESS than the prices quoted below (Phone for latest prices).

Data Pulse +85Mb	£349.99	85Mb with Floptical	£629.99
SPECIAL OFFER		127Mb with Floptical	£699.99
Data Pulse +170Mb	£399.99	170Mb with Floptical	£769.99
Data Pulse +240Mb	£499.99	240Mb with Floptical	£839.99
Data Pulse +345Mb	£649.99	345Mb with Floptical	£999.99
D/P +21Mb Floptical	£399.99	ICD PRO Utilities	£39.99
D/P +128Mb Optical	£989.99	FALCON SCSI II Cable	£39.99
128Mb Optical Disk	£35.00	ICD LINK	£89.99
5 x 21Mb Floptical Disk	£99.99	21Mb Floptical Disk	£22.00

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 at 768 x 480 resolution
 - 8 Channel 16 bit, high quality. Stereo sound sampling
- | | |
|---------------------|---------|
| FALCON 1Mb No HD | £599.00 |
| FALCON 4Mb No HD | £779.00 |
| FALCON 4Mb 120Mb HD | £999.00 |

STE Packs

- | | |
|--------------------------|---------|
| 1Mb STE | £199.99 |
| 2Mb STE | £269.99 |
| 4Mb STE | £339.99 |
| 520 ST/FM Discovery Pack | £149.00 |

Software

- | | |
|--------------------|--------|
| Scanlite Accessory | £20.00 |
| Image CAT | £24.99 |
| 1st WordPlus | £36.99 |
- ST GAMES SOFTWARE IN STOCK - PHONE FOR DETAILS

Midistudio Master

240 PPO Midi Standard file format compatible, 100 tracks. Phrase arrangement. Very easy to use.

£19.99

Marpet Upgrades

Marpet upgrades for the ST are "plug in" and require no soldering. They are compatible with most motherboard layouts and come with full fitting instructions. These boards accept SIMM boards and are upgradeable at a later date.

Unpopulated Board £28.00

Please phone for further details
See SIMM's upgrades below

Aries Upgrades



- Will fit any ST(F)(M) or Mega ST
- Extremely compact in house designed Multi-layer circuit board smaller than a credit card
- Upgradeable in stages from the base 512k to 2Mb then 4Mb
- Solder in design for greater reliability (requires some technical knowledge)
- Fully tested prior to despatch
- All Aries RAM upgrade boards come packaged in a 10 capacity disk box, complete with full fitting instructions/test disk.

512K Board	£39.99
2Mb Board	£89.99
4Mb Board	£169.99
512K SIMM's STE	£69.99
2Mb SIMM's STE	£69.99
4Mb SIMM's STE	£139.99
2 x SIPP to SIMM adaptors	£3.00

Monitors



- Dataview Mono Monitor £139.99**
Dataview 14" SVGA Monitor with ST adaptor (Includes sound). Fully compatible with all ST Hi-Res Programmes.
- Philips 8833 MkII £199.99**
Includes 12 Months on-site warranty (Mainland UK) and free Lotus Turbo Challenge II game.
- Dataview SVGA Col Mon £239.99**
High quality Colour SVGA Monitor .28 dot pitch. Includes Falcon adaptor.
- Falcon VGA Adaptor £9.99**
Falcon ST Monitor Adaptor £9.99
Philips SCART to ST/STE £9.99
8833 MkII to ST/STE £9.99

Repair Services

Our Service department can repair ST's in minimum time at competitive rates. We can arrange for fully insured, 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 can fit memory upgrades, PC Emulators, Security devices, ROM upgrades, hard drives to Mega STE's etc.

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, any extra parts are chargeable.



Quotation	£15.00
Minimum repair charge	£35.25
Same day service	£15.00
STFM(E) PSU	£34.99
1Mb internal drive	£39.99
A/B Boot switch	£4.99
TOS 2.06 + Switch STFM	£65.00
TOS 2.06 + Switch STE	£65.00
Courier Pickup	£11.00
Courier Return	£7.00

Phone for price and availability of ST spares

Hand Scanner

- 100,200,300,400 Dpi Resolution
- 1 letter mode, 3 photo modes
- 105mm scanning head
- Includes Cartridge through port with switch box
- Compatible with Touch Up 18
- Supplied with Scanlite Accessory. Compatible with any graphics package which supports accessories. Allows scanning directly into compatible packages, such as Silhouette and Megapaint II
- Supplied with Silhouette V14. Autotracing vector package (mono monitor only). Scan directly into Silhouette via Scan or Import IMG, DEGA5, TINY, MacPaint, GEM and SGF bit image files. Exports IMG, GEM (13), SGF, DXF, EPS (Postscript) vector files.

Hand Scanner + Scanlite/Silhouette

£119.99

DataNet Network



- Datanet Network Hardware**
- Cartridge based high speed network solution
 - Compatible with ST (F)(M), Mega ST, STE, Mega STE
- Powered Network Software**
- MultiTasking Network software allows applications to run on the server while drive and printer accesses take place in the background
 - Allows the mixing of Network types, ie DataNet, LanNet and MidNet devices
 - Full Falcon compatibility using LanNet device

DataNet with PowerNet	£69.99
LanNet with PowerNet	£59.99
MidNet with PowerNet	£49.99

Prices quoted are for 1 Node. Each computer attached to a Network requires 1 Node.

PC Emulators



- Run PC Software on your ST
 - Full installation instructions
 - XT or AT Emulation
- | | |
|---------------------------|---------|
| PC Speed STFM or STE (XT) | £49.99 |
| AT Speed STFM (8MHz) | £139.00 |
| AT Speed C16 STFM | £199.00 |

Printers



- Star**
- | | |
|---------------------------------------|---------|
| Star LC100 Colour | £165.00 |
| Star LC20 | £124.00 |
| Star LC24/100 Mono | £179.00 |
| Starjet SJ48 Bubblejet | £210.00 |
| SJ48 Sheet Feeder | £55.00 |
| SJ48 Ink Cartridge | £19.00 |
| SJ144 Thermal Transfer Colour Printer | £559.99 |
- 144 Element Print Head
 - Compressed Data Mode
 - 3 Resident Fonts
 - 360 dpi Resolution
 - Emulate Epson LQ860, IBM pro printer and NEC graphics

- Citizen**
- | | |
|----------------------------|---------|
| Citizen 124D Special Offer | £149.99 |
| Citizen Swift 240 Colour | £270.00 |
| Citizen Swift 90 Colour | £175.00 |

- Hewlett Packard**
- | | |
|-----------------------|---------|
| HP Deskjet 510 | £299.99 |
| HP Deskjet 550 Colour | £599.99 |

- Lasers**
- | | |
|--------------|---------|
| Ricoh LP1200 | £789.00 |
|--------------|---------|
- Add £3 for Centronics cable and £7 for next working day courier delivery

Ladbroke Computing



33 Ormskirk Rd,
Preston, Lancs,
PR1 2QP

Ladbroke Computing International are one of the longest established home computer dealers in the UK. We have developed an extensive customer service policy which involves testing of all hardware prior to despatch 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 are correct at copy date 13/9/93 (while 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 most items under £40 (Normally £3, phone for Add £7 for courier delivery. Next day delivery on mainland UK (not stock (£20 for Saturday delivery).

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3D graphics
with InShape,
the latest
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for Atari
computers**

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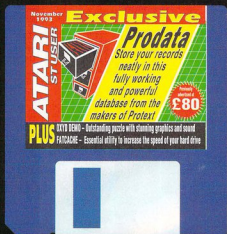
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Another packed disk,
this month featuring
Arnor's Prodata, a very
fast, powerful and
versatile database for
tidy and efficient
storage of your records

PLUS:

● Oxyd -
amazingly
addictive puzzle
game featuring
digitised sound
effects and
brilliant graphics



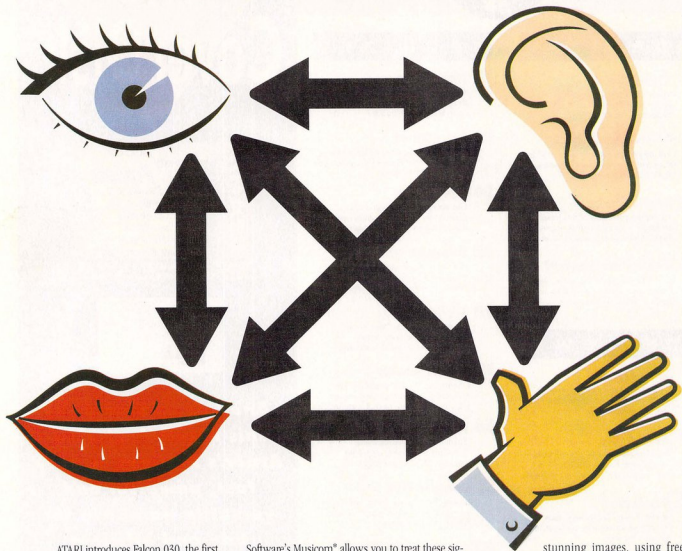
● Fatcache - a cache utility
which will speed up your hard
disk performance - users with
TOS 1.2 or lower could see a
1,000 per cent increase!

The DISK starts on page 14

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If you understand this, you understand the Falcon.



ATARI introduces Falcon 030, the first ever micro computer which instantly communicates with all your current and future audio-video equipment. Now, TV, Monitor, HiFi, CD, CDV, R-DAT, DCC, VHS, telephone, synthesizer, photo CD, camcorder, printer, modem, ... communicate with each other, allowing you to get the most out of each piece of equipment. A true technological revolution, Falcon 030 is operated by a 68030 processor working in parallel with a DSP, which is able to treat digital data at a very high speed.

Falcon Audio, the universe of Direct to Disk: Falcon 030[™] offers, as standard, "Direct-to-Disk" recording, from a microphone (voice or instrumentation), a Walkman or a HiFi, via a simple stereo plug and also through its MIDI interface. Compo

Software's Musicom[®] allows you to treat these signals at better than CD quality: equalizer, Digital Delay (echo), harmonizer, flanger or even karaoke.

Falcon Video, manipulating images: Falcon 030 can be connected to almost any

stunning images, using freehand drawing, lines, shapes, patterns, perspective, colours, and even create animations which can be stored on video. **Falcon Photo, a personal computer studio:** Thanks to Studio Photo[™] from

Euro-Soft, the Falcon 030 treats digital photos in all formats, including Kodak CD, allowing special effects and retouching. **Falcon Software:** Falcon 030 already benefits from a wide range of innovative software and now, using

video source. With OverScan's Overlay[®] and Genlock[®] you can add titles, animations, sound to your videos and generate presentations combining a slide show with sound. **Falcon Graphic, a choice of 65,536 colours per pixel:** With Hisoft's True Paint[™], you can produce

Falcon Speed[™] from Sack Electronics you can run MS-DOS programs on your Falcon 030. For more information write to: ATARI Corp. Ltd, Railway Terrace SLOUGH - BERKSHIRE-ENGLAND SL2 5BZ. Software by Compo, Euro-Soft, OverScan Sack Tel.: 0480 891819, by Hisoft Tel.: 0525 718181.

FALCON 030
ATARI

Now, all that communicates communicates.

Jaguar to grab console lead

by
John Butters

AS JAGUAR'S launch nears, Atari have released its full technical specifications and software details, while highlighting the console's advantages over rival machines.

The revolutionary system will be rolled out in New York and San Francisco during the next few weeks at around \$200 (£135), and is promised for Britain early next year.

With Jaguar, Atari president Sam Tramiel claims to have taken a lead over the 3DO multimedia system which has picked up huge backing from around the computer industry.

"We believe that we have taken a more substantial jump than 3DO has in bringing a better and more affordable entertainment experience to the consumer market," he said.

Its impressive technical features include a 64-bit RISC multi-processing, 16.7 million colours, stereo 16-bit CD quality sound and operation at 55 million instructions per second.

It has a graphics processor with 4k of zero

wait-state internal SRAM, a digital signal processor, object processor for video work, blitter and a 68000 general control processor.

They make the console capable of achieving several special effects such as texture mapping, morphing, warping, lighting and transparency to create complex graphics effects.

A compact disc player will be available as an optional extra with dual speed operation reading up to 350k per second, or normal



Tiny Toon: One of the first Jaguar games



Jaguar: Atari start rival attack

audio rates of 175k per second. In addition to storing almost 700Mb of video games storage, the CD module will interface with audio CD, Karaoke CD, CD + Graphics and Kodak's Photo CD.

An MPEG 2 cartridge is also planned to enable Jaguar owners to play full length motion pictures from CD.

Atari will release at least 10 games in time for the machine's launch, while third party developers worldwide are also known to be designing software.

There will be four shoot-'em ups - Crescent Galaxy, Cybermorph, Tempest 2000 and Raiden - and driving games Club Drive and Checkered Flag II.

Kasumi Ninja will be a beat-'em-up, Evolution-Dino Dudes - a platform puzzle game similar to Humans - and two well known titles Tiny Toon Adventures and Alien vs Predator.

Each cartridge will cost between \$50 and \$80 (£35 to £55).

Free memory with cricket

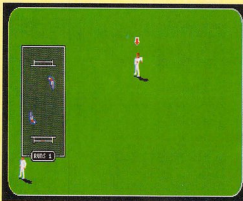
THE first 1,000 people to buy Audiogenic's Graham Gooch World Class Cricket directly from the firm (081-424 2244) will each be given £10 towards an ST memory upgrade.

The simulation is among Britain's Top 10 selling games and features teams from all the test-playing countries of the world.

Said Audiogenic boss Peter Calver: "Sales of World Class Cricket for the ST have been held back because it requires one megabyte of memory.

"Though memory upgrades are relatively inexpensive nowadays, it's unreasonable to expect the average user to upgrade just to play one game - even a game as good as this one."

The offer will run until the end of this year.



Gooch: Memory discounts for cricket players

Now ST users can buy Gorbys car

LIKE to buy a Mercedes limousine previously owned by Mikhail Gorbachev? How about spy-satellite dishes from Uzbekistan or even MiG fighter planes and parts?

On-line database CompuServe have just expanded their system with International Trade Forum so that anybody with an Amiga and modem can buy and sell items just like these.

CIA INFORMATION

The forum also allows CompuServe members to access United States Central Intelligence Agency fact books on countries worldwide.

These contain information on each nation's geography, population, economy, languages, religions, politics, judicial system and military.

And a message board enables members to post questions and comments to one another, and acts as a meeting place for international traders.

The forum costs about £5.50 per hour at up to 2,400 baud in addition to the monthly subscription of about £6.15.

News briefs

Jaguar to fund Falcon

PROVIDING the Jaguar is a success, funds will be taken from the console and put into Falcon, according to Atari's US spokesman Bob Brodie.

Although only a handful of companies are profiting from budget computer hardware, Atari say they are committed to Falcon. "We believe in it, and intend to support it," Brodie claimed.

★ ★ ★

Atari cut losses

ATARI made a loss of \$6.6 million in their second quarter to June 30, 1993, compared to a shortfall of \$39.7 million for the same period in 1992.

The company's president, Sam Tramiel, said Atari focused all their efforts on the development of Jaguar and claimed the firm have about \$35 million in cash.

★ ★ ★

Spelled out

A 176-page dictionary just added to Chambers' range of English usage titles unravels the mysteries of computer-speak, listing and explaining terms from all areas of computing. Cost, £5.99.

★ ★ ★

Extra wings

SYSTEM Solutions (081-693 3355) are now selling FalconWings, an upgrade to give Falcons either 4 or 14Mb of usable memory. Its price starts at £59.95 for an unpopulated board.

★ ★ ★

Image maker

A TRUE colour image processing and editing program called Hyperion will soon be launched for Atari computers by Birmingham-based Titan Designs (021-414 1630).

It will offer a range of functions, including palette, pixel, filter and histogram processing. Cost £99.95, but an introductory price of £79.95 will be offered until the end of the year.

★ ★ ★

Calamus upgrades

THE new distributor of desktop publishing package Calamus have announced that improved versions of Calamus S and SL are now available. For upgrade details telephone JCA on 0734 452416.

★ ★ ★

Memory drive

A VIRTUAL memory manager which uses TT and Falcon hard drive space to emulate system memory is now on sale at 16/32 Systems (0634 710788).

Outside v3 needs at least 2Mb of memory to run and can give a maximum 512Mb of memory. Price, £89.

Printer solves space problems

ANYONE without enough desk space for a bulky laser printer could find Fujitsu's new 360 dots per inch Joyriter portable a suitable alternative.

With a footprint smaller than a quarter A4 sheet of paper, it weighs in at just 1.2kg including battery and prints at 81 characters per second.

The £374 machine can be powered by an AC adaptor or NiCad battery pack - with a capacity of 20 pages per charge - and contains four fonts as standard.

Emulations include Epson LQ850, IBM Proprinter X24E and Fujitsu DPL24C.



Joyriter: Ideal for those short of space

Get organised!

WORK Manager is a new low-cost GEM program from Academic Software (0296 82524) designed for ST owners who need to organise their day's work.

Several tasks can be handled in different categories and subjects, with the program acting as a jobs planner, homework diary, calendar - even a combination of all.

It features a database with special fields for deadline, subject area and duration, while a task page enables a description of up to 550 characters to be entered.

Other facilities include schedule summaries and task browsing, sorting by deadline for presentation in order of urgency, a print out function and keyboard shortcuts.

Price, £14.99.

Dr T products find new home

DOCTOR T's Music Software have appointed Key Audio Systems (0245 344001) as the British distributor of their ST and Falcon music products.

Avalon Music Development (081-699 7004), meanwhile, will provide upgrades and technical and education support for Dr T's new Omega II Midi Composition System.

Omega II is a revised version of the KCS Omega sequencer, containing graphic editing system Tiger 2, Song Editor and a new module called the Midi Mixer.

This provides a virtual fader display for mixing controllers, and facilities for controlling audio mixing desks such as the Macloe CR1604.

The £275 package supports Midi Timecode and Midi Machine Control protocols and is Falcon compatible. Upgrades will cost £99.

The moves follow the closure earlier this year of Dr T's previous distributor, Zone Distribution.

Existing users of Dr T products should contact Avalon Music Development to confirm their names are entered into the customer support database.

Better emulation for PCs

GEMULATOR, the emulator that enables ST software to be used on PC compatibles, has just been improved by its US makers Branch Always Software.

Several features have been added, with the board featuring three ST graphics modes, one or two floppy disks, support for up to four hard drive partitions and up to 8Mb of memory.

It also emulates one serial and printer port, three voices of sound, real-time clock and several enhancements not found in standard STs.

Many packages are claimed to be compatible with version three of the board, although copy-protected disks such as games and timing dependent software will not work.

It needs at least a 33MHz 386 PC and can be bought in Britain from the ST Club (0602 410241). Prices and upgrade details were unavailable at press time.

Orpheus budget the home

TWO new packages aimed at ST users who need to budget home accounts have been released by Hastings-based Orpheus Software (0424 436674).

Easy Money features fast entry transactions, 15 cash accounts, 83 expense categories, up to 5,000 transactions in memory and editing.

The £24.95 package is also capable of statistical analysis and the program's makers claim it to be fast and ease of use.

The other program, Easy Money Plus, is a bigger version of its sister package with several extra features.

These include user-defined macros, budget accounts for direct debit, standing orders and expense management, and flag and auto flag features for conditional filtering of data.

A separate module can generate 12 types of graph, based on statistical calculations or manually entered information, and these can be output to a range of printers or saved as Degas files.

It costs £39.95, and upgrades will be available from Easy Money for £19.95.

On sale!

THE next issue of *Atari ST User*, with two CoverDisks and an *ST Action* supplement will be on sale from October 28.

Protex 6 - A Winning Performance



Some highlights of Protex 6

Styles

Styles let you make flexible use of printer fonts and effects. You can change a font throughout a document with a single operation.

Document Layout

An easy to use dialogue lets you lay out your page precisely as you want using inches or cm for the page length, margins and tabs.

Graphics

Graphic images may be imported into a Protex document. Supports IMG, PCX, GIF and IFF. You can select any resolution and scale the image. Dot matrix, inkjet and laser printers.

Printers

Protex's unrivalled understanding of printers gives you the highest quality printing at the highest possible speed. Using a printer's built in fonts enables Protex to print pages in seconds rather than the minutes taken by some programs.

Protex is still the fastest

- Fastest at editing.
- Fastest at spell checking.
- Fastest at printing.

Protex still has the best printer support

- Hundreds of printers supported
- PostScript driver included **NEW**
- Scalable font support **NEW**
 - Colour printing **NEW**
- Automatic line spacing **NEW**

Protex still has the most advanced features including:

- Styles **NEW**
- Graphics import **NEW**
- Spelling checker
 - Thesaurus
 - Hyphenation
- Document analysis
 - Glossary **NEW**
 - Footnotes
- Widows and orphans
- Index and contents
- Addition of numbers
 - File sorting
 - Mail merge
- Programming language

Protex is now easier than ever to use

- Menus and dialogue boxes
 - Interactive Help **NEW**
 - Macro editor **NEW**
 - Dictionary editor **NEW**

The list price of Protex 6 is £152.75 but you can order direct today for just **£99** inclusive. For the Atari ST and TT.

Phone us today and we will send you a usable demo version and a full specification, absolutely free. Upgrade offers available - please call us for the current price.



ARNOR

Euro News

Don Maple relays all the latest news from mainland Europe



Dusseldorf to return

The famous German Atari show is back on again, although not this year. Over the last six years the Dusseldorf show, as it is also known, was a showcase for all that was new and exciting in the world of Atari.

According to Atari there just wasn't enough time to do the show this year due to monumental reorganisation. One option was a "mini show" but, on reflection, it was decided to postpone the whole undertaking until next year.

The show itself is also affected by the restructuring of the company. In future, instead of Atari it will be organised by an independent company. Preparations for Atari Messe 1994 are already in progress.

The location has not been finalised yet but will definitely be in or around Dusseldorf. This corner of Germany borders on Holland and Belgium and is, due to its central position, very convenient for a vast number of exhibitors from all over Europe. For more information contact: Press Agency Reimann, Fuerstenwall 88, 40217 Dusseldorf Germany.

Number crunching

The latest and totally rewritten version of data analysis package Data 4.0 Professional has just been released.

This highly specialised data analysis program evaluates complex mathematical formulas in physics, technology and statistical analysis and displays the information graphically.

Supplied on three disks, the package uses GDOS for output. Two large manuals explain numerous features in detail, although they're in German. However, the GEM interface makes it easy to use and mathematical expressions know no language boundaries.

The program is extremely flexible yet the multitude of options and features is staggering. The built-in algorithms handle regression, approximation and interpolation - some 40 different functions in total. Among the more common are different types of Fourier analysis and various splines. This new version of the



Data 4.0 Professional

program also supports macros. The package runs on all Atari computers and in any resolution although a minimum of 2Mb of memory is needed.

It's available from Dipl.-Phys.-Ing. Ralf Wirtz, Kasterstr. 30, 52428 Juelich, Germany.

Chronos is a calendar/appointments planner with a difference. As you would expect, all of the standard features are there. You can glance at a year as a whole or view each month or week individually. Appointments can be entered either for a particular day or as regular, periodical occurrences.

Chronos will also automatically pick out when you should go on vacation to cause a minimum of disruption to your daily routine. A number of different calendar-based calculations and conversions make this a particularly user friendly program.

It will also show seasons, moon and sun phases, even longitudes and latitudes of a

number of major cities worldwide.

This is a truly international program because it's aware of holidays the world over and there is a special module for Britain. For the superstitious among you it will also pick out Friday 13s and show you a biorhythm. The program can be run both as an ACC and a PRG.

The current version, 1.41, is available for DM30 (£12) from the author: Daniel Roth, Bruecker Mauspfad 448, 51109 Cologne, Germany.



Better DigiTape and Chagall

A new version of TradeIT's DigiTape, the digital multitrack recorder for the Falcon, is available now for DM699 (£280). Among other features' DigiTape 2.0 adds new effect modules and can handle up to 32 virtual tracks.

A new version of Chagall 4C by the same company is also available. This professional graphics program now supports CMYK colour separation and TIFF 6.0 format, and sells for DM1499.50 (£600).

Both programs are available from: Trade IT, Arheilgerweg 6, 64380 Rossdorf, Germany. In Britain call CGS ComputerBild on 081-679 7307.



● Fancy going to party? How about this: "v0.9" of the "Aggressive Party" will take place at Planet FunFun amusement park at Kerava, Finland on October 8 to 10.

Billed as an Atari (ST/TT/Falcon030) Party it will focus on the Falcon. Other platforms will also be covered, but not to the same extent.

A whole range of events is planned including a number of demo/program coding competitions with cash prizes.

It will cost you 100 Finnish Marks to get in. For more info contact: Jan Achrenius, Liesitte 1 E 13, 04200 Kerava, Finland.

● As reported here a couple of months ago there is a grass roots move by Atari enthusiasts in Germany to produce a CD of Atari PD software. The initial preparations are now finished and the applications for contributions are now officially out.

Any PD author willing to have their program included should send the latest version to the address below together with a short description of the program.

This is strictly a non-commercial undertaking and the CDs will be sold at cost. That fact alone deserves and is worth the support of any PD writer.

You can either send your programs directly or request more information from Bernd Lohrum, Schlossbergstrasse 36, 66440 Blieskastel, Germany or send them to him via email at Bernd.Lohrum%club-box@light.de for a speedy response.

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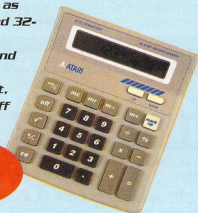
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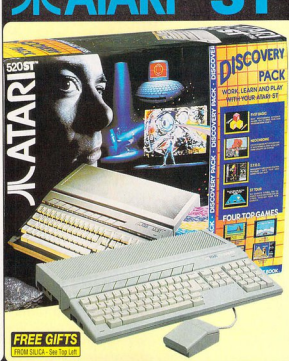
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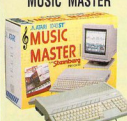
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COVERDISK

This month we have Prodata, a powerful database program from the company behind the Protex word-processor, and Oxyd, a brilliantly addictive and playable puzzle game

Prodata

A complete and powerful program that will allow you to create a database of information such as your CD collection or phone numbers of friends and family

Programmed by: Arnor
Configuration: All STs - medium or high resolution
Filenames: X PRODAT.TOS - self extracting archive

One of the things your ST is really, really good at is storing and retrieving information. In fact, it's one of the most common functions of any computer.

As such, it can handle large amounts of information, and allows it to be manipulated and interrogated with ease. In fact, database programs were one of the first computer programs ever written for a computer.

They allow you to create a table of important (or even unimportant) information such as a list of your favourite CDs. You could arrange your information to contain such details as album name, band name, track names, overall running time for each CD and a number, indicating which slot in your storage rack the CD can be found.

With this information entered into the database, you would then be able to quickly search through the information for a specific CD, and find out which slot it is in. You could also search for the CD by entering the name of the album, band name or any

Prodata reader offer

The complete Prodata manual is available to Atari ST User readers at a discounted price of £12. For more information on ordering the manual, turn to page 20.

Prodata 3.0.0.0 | 01 01 0000 0100 | Printer: 001 000000 | Directory: 1 | Prodata |
Name: 00000 000 00 01 | Back: 0 | Set: 0 | Layout: 0 | Index: 0 | 10 20 30

Company: Arnor Ltd
Address: 611 Lincoln Road
Princes Risborough
Address:
Address:
Post Code: MK1 3BB
Telephone: 0135 65990

Prodata 3.0.0.0 | 01 01 0000 0100 | Printer: 001 000000 | Directory: 1 | Prodata |
Name: 00000 000 00 01 | Back: 0 | Set: 0 | Layout: 0 | Index: 0 | 10 20 30

Once in memory, any record can be edited. At the bottom of the screen can be seen the various functions available at the press of a key

Prodata features

- Variable length fields
- Indexed files
- Flexible layout design
- Filtering facility
- Password protection
- Macro facility
- Data entry verification
- Import/export of data in varying formats such as Protex
- Expression evaluator



Top 4 & 5 to move between windows, F10 to return to DOS to exit

Other database options may be activated, such as whether password protection is enabled and also whether expressions or filters are to be entered

other search criteria. You don't even have to enter the full name. If you want to find a CD that has the word Mega in its album name, the database will display a list of such names which it finds with that word in it.

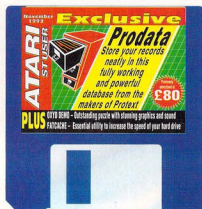
For a basic guide to using Prodata, turn to our disk tutorial on page 18 for a basic guide to getting Prodata up and running.

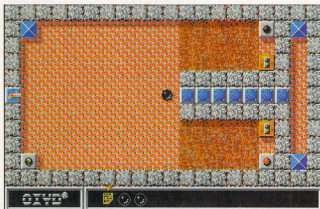
Prodata 3.0.0.0 | 01 01 0000 0100 | Printer: 001 000000 | Directory: 1 | Prodata |
Name: 00000 000 00 01 | Back: 0 | Set: 0 | Layout: 0 | Index: 0 | 10 20 30

After create database
Create new database
Edit field names
Fields
Indexes
Passwords
Filters
Expressions
Data generator changes

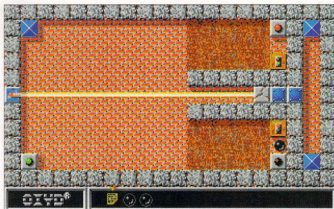
Prodata 3.0.0.0 | 01 01 0000 0100 | Printer: 001 000000 | Directory: 1 | Prodata |
Name: 00000 000 00 01 | Back: 0 | Set: 0 | Layout: 0 | Index: 0 | 10 20 30

A number of general utilities are available, enabling import and export from other applications for example





Now how do I get to the other two Oxyds on the far right of the screen?



Aha! That switch I just hit above my marble has activated a laser beam which is blasting it's way through the blocks

Oxyd demo

An addictive and brilliant puzzle game with a Marble Madness feel to it. It features excellent graphics, sound and the ability to link machines and play against a friend

There is a secret world of slumbering bits and bytes deep within your computer. Unfortunately, this peaceful world is now under threat and is in need of your help.

Overnight, the life sustaining Oxyds have all closed and the inhabitants are unaware that their world will soon suffocate unless they are opened again.

Of course, this is where you come in. Your job is to re-open all the Oxyds, thereby restoring the life sustaining process. Each landscape (or level) consists of a certain number of these Oxyds, which you have to find and open.

You control a black marble which is controlled by the mouse and to open an Oxyd, you merely bump into it. At this point the Oxyd will open.

However, Oxyds vary in colour and to make sure an Oxyd stays open, you have to open another of the same colour as the previously

Programmed by: DWV GmbH
Configuration: All STs with 1Mb or more - low resolution only
Filename: OXYD.COL.PRG -
Non archived executable file

opened one. Once all Oxyds have been opened, you will then proceed to the next landscape. To aid you in your role as saviour, there are various objects along the way which can help you. Now, a marble, being generally a featureless sphere, does not come complete with hands.

Therefore, to pick an object up, you simply move the marble onto it. Once collected, the object appears in a window at the bottom of the screen. The object that will be used when you click on the right mouse button is the one

at the far left of the window. You can scroll through the object to use by pressing the left mouse button.

As with all rescue missions, there are also hazards to beware of. Watch out for quicksand, where you will be sucked under if you wait around too long on it, and also very, very deep pits, into which you can fall (and smash to smithereens (remember, you are a glass marble after all). There are also the odd smatterings of alien opponents (as in the first landscape) who will pursue and smash your marble to pieces if they get a grip of you.

If you successfully complete a landscape, you are given a secret number which will allow you to start from that position next time you play the game. So, be sure to write these numbers down or you will find yourself starting from scratch on a level you have already done before.

Things become even more interesting with ➤

Experiencing a problem with the October CoverDisk?

Due to a slight error in mass production of the October CoverDisk at our duplicators TIB, a small batch were damaged.

Readers having difficulties with a "Data in drive may be damaged" error message while trying to copy files, should send their original disk to: TIB, 11 Edwards Street, Braulford B04 7BH, from where they will receive a replacement disk free of charge.

CoverDisk Hotline

Hotline number: 0625 859766,
2pm to 5pm every Wednesday.

If you have any other problems with the CoverDisk, our technical editor, Darren Evans, will be available on the Atari ST User CoverDisk Hotline. Help is only available within the times specified, and no advice will be available outside these hours.

If a fault turns up

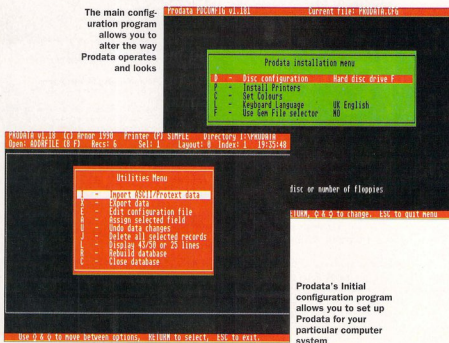
With thousands of disks being duplicated each month, a few will inevitably be faulty. Fortunately, we can help you. Send the faulty disk to:

TIB, 11 Edwards St, Braulford B04 7BH

A replacement will be sent free of charge but please allow 28 days for delivery.

Single-sided service

Single-sided drive users wanting the contents on this month's disk on single-sided disks should send their original CoverDisk and a cheque for £1.50 - payable to Atari ST User - to SSD Service, Atari ST User, Europa House, Adlington Park, Macclesfield SK10 4NP.



Prodata's Initial configuration program allows you to set up Prodata for your particular computer system

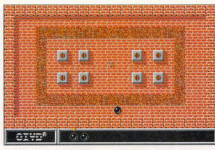
the aid of a set of Midi cables or via modem. When playing in multiplayer mode, one player is a black marble and the other is a white marble.

The landscapes within the multiplayer mode are also very different from those played solo. These landscapes require a great deal of cooperation between both players if they are to complete the level. When a multiplayer landscape is completed, the secret number is displayed on the screen of the player controlling the black marble.

Oxyd is distributed under the rather strangely named Dangleware philosophy. This means that you are allowed to copy the game and distribute it to whoever you want. However, in the case of Oxyd, you will only be able to access the first ten landscapes of the game. After that, a code system prevents you going further until you obtain the Oxyd Book. This allows you to try out the game for free and, if you like it, you can send in a fee to access the complete game.

This book contains the codes necessary to access the other levels (by the way, there are 200 levels to the game!). Also in the Oxyd book are hints and tips on playing the game.

The book costs £19.95 and is available in the UK from Cachet UK Inc., whose address



That nasty blighter in the middle of the screen will home in on you as soon as you cross the quicksand (the brown patch)

can be found by pressing the F9 key at the main menu of the game.

To run the game, simply double click on the file OXYD_COL.PRG file. Once loaded, you can select the type of game you want. If you decide to play the game with computers linked, you will require a set of Midi leads, available from most computer or music stores.

When connecting the Midi leads, be sure that the Midi In port on your computer is connected to the Midi Out port on the other computer, and the Midi Out port on your machine is connected to the Midi In port of the other.

Fatcache

Is your hard drive acting a bit sluggish? Then speed it up some with this hard disk cache utility

Those of you with TOS version 1.2 or lower will no doubt be aware of the sluggishness of the file handling routines built into the ST. The problem is most noticeable when copying large groups of files from one destination to another in one go, especially when copying a number of 'embedded directories' (directories within directories).

Fatcache alleviates this problem by replacing the slow File Allocation Table (FAT) routines in the ST with faster and more efficient code. The instructions claim that when copying a large batch of files between hard disk partitions, speed increases may often be in excess of 1000 per cent. This means that if a copying operation would have taken an hour, would have taken a mere six minutes with Fatcache installed.

This FAT acceleration feature is only beneficial to users with TOS versions 1.0 or 1.2. Later TOS versions have their own more efficient routines built in. This does not mean that

Programmed by: Phil Jensen with additions from Tim Rule

Configuration: all STs with TOS 1.2 or lower - All resolutions
 Filenames: X.FATCAC.TOS - self extracting archive

users with later TOS versions can't use this program. The general cache feature will still provide a speed increase on these versions.

Installing Fatcache is made extremely simple thanks to the GEM installation program. Once you have extracted the program, simply double click on the FATCINST.PRG file and you will be presented with the installation dialogue box.

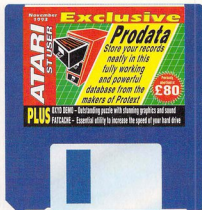
To install Fatcache on your boot partition, you should select Yes for Install at Bootup. The FAT speedup ON/OFF box allows you to switch off the FAT accelerator feature for TOS versions above 1.2, thereby avoiding the fat acceleration not installed message when run on the later versions.

On the far right, you will see a selection of drive letters representing the partitions available. Clicking on a partition will de-select it and disable caching and FAT acceleration on that drive. This is useful for instances where you have a RAM disk installed, as RAM disks do not require caching.

The value under buffers allows you to assign a number of buffers which should be used for caching. Generally, the more buffers used, the more efficient the caching will be. However, too many buffers can be detrimental to disk speed so you should experiment with various values. Ones between 48 and 128 are effective.

Once you have made your selections you can either click on Install Immediately, which will install Fatcache directly into memory, or click on Save to save the current settings.

If Yes was selected under Install at Bootup, the file FATCACHE.PRG is placed in the AUTO folder and will load automatically at bootup.



Using the CoverDisk

Write-protect your CoverDisk now by sliding the write-protect tab so you can see through the hole at the top right corner of the CoverDisk.

In order to fill the disk with as many programs as possible, ST User employs disk compression techniques when placing large programs on the CoverDisk. These files are termed 'archived files' and cannot be directly executed from the CoverDisk. Archived files are identified by their names beginning with X.

Any files that do not begin with X, are actually folders containing files which are not compressed.

These uncompressed files should also be copied to a blank disk. Following are a series of step-by-step instructions for using the CoverDisk.

Important: The ST User CoverDisk uses an extended format of 10 sectors and 81 tracks to increase storage space. This means you will not be able to copy this disk using the ST's built-in copying feature.

To make a backup of the CoverDisk, you will need a copying utility, such as FastCopy 3. Such utilities are available from all good PD libraries.

Alternatively, you may use a formatting utility, to format a disk to the same 10 sector, 82 track specification as the CoverDisk and simply copy all files to this.

Using archived files

Note: When copying files, the ST refers to disk A and disk B in its on-screen instructions. Disk A refers to the disk being copied while disk B refers to the disk being copied to (usually a preformatted blank disk).

1. Format a disk.
2. Copy the required archived file to the formatted disk.
3. Run the copied archived file. It will run automatically "extract" to its full size.
4. Once complete, delete the X_filename as this is no longer required. The formatted disk should now contain all the files that were in the archive file.

Normal uncompressed files

1. Format a blank disk.
2. Open the required folder and copy all files in the folder to the formatted disk.
3. You can now immediately run the program/s as is.

Highlighting and dragging files and icons

1. Click once on the item, it should turn black (the item is now highlighted).
2. If you keep the left mouse button held down on the item, a dotted outline of the item appears and you may then reposition it by moving the mouse to the required position (effectively dragging the icon) and releasing the mouse button.

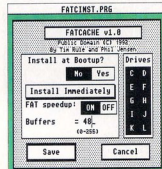
If you are new to the ST and did not understand some of the terminology in the preceding steps. There now follow an explanation of some basic techniques needed.

Formatting a disk

1. Place the disk to be formatted in the drive.
2. Highlight the drive A icon.
3. Move mouse pointer up to the FILE menu at the top of the screen and select FORMAT.
4. A box will appear. Click on OK.
5. Another box will appear. Ensure DOUBLE SIDED is selected then click on OK. The disk is now being formatted.

Copying files to another disk

1. Select the file to be copied by highlighting it and dragging it to the disk B icon.
2. A box entitled COPY FILE(s) appears. Click on OK and follow instructions on the screen exchanging disks as requested.



The GEM installation program makes installing Fatcache extremely simple

System Solutions

FLY LIKE THE WIND...

NVDI replaces the Atari display routines. Screen updates with NVDI are 3-10 times faster. Works with all TOS versions on all Atari ST, MegaST, TT and for the Falcon. MultiTOS and SpeedoGDS compatible.

"Scrolling through a long text file in 1st Word Plus took half the time ... Calamus, Calligrapher and Wordflair also showed a marked improvement ... Compatibility is remarkable and we have yet to find a program that is not compatible with NVDI. ... a must for all ST and Falcon owners"

ST Review Issue 16, August 1993.

NVDI Version 2.5 - £49.95

Hard Drives

"Extremely nice looking..." Professional Quality SCSI Hard Drives Systems, 40-2600 Megabytes from £299. "This is the fastest of the drives reviewed and is superbly engineered, not to mention great value for money." ST User, Issue 90, August 1993.



Special Offer:
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with ICD Link
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Ideal for hard-disk recording
1000Mb, 10ms, 5 yr warranty - £1199
330Mb plug-in-and-go - £569
For other capacities please phone.

High Res Monitors

The SM14s is a perfect replacement for the Atari SM124/5 monochrome monitors, exceeding the original specifications. The 14" high resolution paperwhite FST gives a perfectly centred, crisp and sharp image without blurring at the edges.

On/Off switch, Volume and Brightness at the front; Vertical Size, Horizontal Phase, Contrast and Focus at the back. The tilt and swivel base and a monitor cable with the correct connector are standard.

An amazing 40% extra workspace can be gained with OverScan ST. The SM14 is a totally plug-in-and-go unit.

"Essential Buy, 90%" ST Review, May 93

without audio
SM14 £149.95

with audio
SM14s £169.95

40% Bigger

display with OverScan ST.



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eICo doubles Disk space to 1.44MB!

- ★ Automatic floppy disk detection
- ★ Compatible with your floppy disks
- ★ Software is included. (ACC and CPX)
- ★ Fully supported by TOS 2.06
- ★ PC and Emulator compatible
- ★ A perfect replacement floppy drive!
- ★ Kit price still only £79.95 inc VAT

Kit price still only £79.95 inc VAT

World Record

68000 CPU running at 36MHz

Two new Accelerators are now available for the MegaST and ST(FM) computers. Performance and price are sensational. The T28 with a 28MHz clock is 3.5 times faster and the T36 with a 36MHz clock is 4.5 times faster than the original ST's clock. The use of the original 68000 processor guarantees near perfect compatibility. CPU caching is switchable for added compatibility with the cartridge port devices. DTP, Graphics Software and Cubase show a fantastic speed increase.

Compared with a standard ST without Blitter, Gembench v3.12 gives the following results:

	ST(FM)	T28	T36
CPU	100%	299%	373%
Graphics	100%	949%	1097%
Average	100%	763%	890%

The combination of the T28/T36 and NVDI transforms the humble ST into a powerful graphics workstation - a dream come true for all those who want more speed at an affordable price. To celebrate the release of this exciting new product we will give away a free copy of NVDI with every T28 and T36 sold.

Hurry! Offer is valid only until 30th Oct 1993.
T28 Accelerator, 28MHz, 64kb Cache £199
T36 Accelerator, 36MHz, 64kb Cache £299

To order and for further information
telephone or write to:

System Solutions

Windsor Business Centre, Vansittart Road,
Windsor, SL4 1SE Fax: 0753-830344

Mail Order Telephone

0753-832212

or come to our London Showroom at:

The Desktop Centre

17-19 Blackwater Street, London, SE22 8RS

Tel: 081-693 3355 Fax: 081-693 6936

Dealer enquiries are welcome

The Falcon Column

Are you planning to purchase a Falcon? How much of your old kit will work on it? Or do you just feel tempted and want to know how much a complete system would cost? For advice and a personal quote phone:

Karl: 081-693 3355 or El: 0753 832212

Now in Stock

Falcon030 Starter Packs:

1mb, 14" Mono Monitor & BlowUP £689

4mb, 14" Mono Monitor & BlowUP £889

BlowUP 030 the Display Expander Using Software and/or Hardware the display expands up to 400%. Virtual screens up to 8000% are also possible.

BlowUP 030 - Software £15.00

up to 880x608 53/10Hz

BlowUP 030 - Hard 1 £49.95

Excellent for Multiscan's (880x608, 1024x768 53/10Hz)

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VGA and other fixed frequency monitors. (TC:480x480 61/120Hz n.l/l)

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Accepts 4x 1mb or 4mb SIMM modules and replaces the original memory board.

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falconWING - 4mb POA

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Integrates the system, space for extra hard drives, separate or replacement keyboard. Phone for the Tower Fact Sheet and price list. DIY or ask for a quote on ready-to-run fitted systems.

14" HQ GreyScale monitor £129.00

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ScreenBlaster £79.95

Falcon Speed - PC Emulator £229.00

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20mb to 330mb from £99.00

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If you do not see what you are looking for, then please phone

Repairs & Upgrades

All repairs are carried out by qualified personnel. If you would like a quote, please ask for an estimate. Need it back in a hurry? Then ask for our professional next day service. Call us to discuss your upgrade requirements. We fit all quality upgrade products available. We can collect and deliver.

Call the professionals now for your personal quote.

Windsor Service Centre:

Windsor Business Centre, off Duke Street,
Windsor, SL4 1SE. Tel: 0753-818816

London Service Centre:

The Desktop Centre, 17-19 Blackwater Street,
East Dulwich, SE22 8RS. Tel: 081-693 1919

ATARI WORKSHOP

Databases were one of the earliest applications ever written for a computer. They are a means of storing information and subsequently allowing fast access to it at any given time. The information can range from friends names and addresses to the complete stock held by a large warehouse.

Such information can take many forms, from simple sections of text with no apparent connections, to extremely organised information with each item in a similar form. Prodata is a type of database that handles data of an organised, or structured type. Working with data of a similar form,

Delving into a database

Prodata might be thought of as a program offering the same features as a simple card index system. However, there is much more to Prodata.

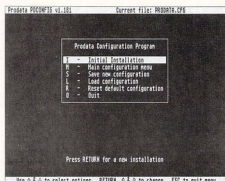
Thanks to its configuration utility, it can be tailored both to your system and your personal tastes. At this point, you run the file PDCONFIG.PRG, which will allow you to configure Prodata.

One of its strengths is its printing ability. To ensure Prodata takes full advantage of your printer, you must assign the correct printer driver to it. This is achieved by the configuration program (you do have it up and running don't you!).

From the main menu of the configuration program, press the I key to access the Initial Installation menu. Next press P to install printers. You can select a different printer for the serial and parallel ports.

First, select which port your printer is connected to (this is most likely the parallel port) so this should be left as Parallel. Now move the highlight bar using the cursor keys to the parallel printer driver line below, or press P.

Pressing the Return key will bring up a selection of supported printers. Use the cursor keys to scroll through the selection to find the driver which best matches your



The configuration program allows you to set up Prodata to make best use of your PARTICULAR ST setup and type of printer



Viewing and editing records is very easy via the layout display screen. Also available are numerous functions, listed in the bottom panel

printer. Once you have the selected driver, press Return to select it and you will be taken back to the Printer driver options menu.

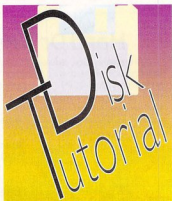
Press the Esc key to return to the Initial installation menu. Depending on your computer setup, you may change this line to inform the system which drive the Prodata program is located. It is also possible to change the language which Prodata uses. Several languages, including USA English, are catered for.

Once selections have been made, press the Esc key to return to the configuration main menu. At this point, it would be wise to save the changes you have made, so press S to do so. You may now quit the configuration program by pressing Q.

Now you may load the Prodata program by double clicking on PRODATA.PRG. Once loaded, you will be presented with the main menu. We will now go through a simple run of creating a simple names and address database.

From the menu, select Alter/create database. Then select Create New database. Enter Names at the prompt for a name for the database and press Return. At the following prompt, just press Return.

This value determines the number of characters which will be compared when sorting entries in the index, the default



Prodata is a powerful and fast database. Follow this basic guide to see just how easy to use it really is

value 15 is sufficient for most purposes so press Return.

At this point, you may enter the name of each field which will make up each database entry. You should enter the following names: Surname, First Name, Address1, Address2, Address3, Address4, Post Code and Telephone.

When asked about input checks after pressing Return for each field name, simply press Return for now to select No (the default response indicated by the upper case letter N). When the last field name (Telephone) has been entered, press Esc.

Press Return at the password prompt to select No. Password protections allows you to keep certain database files secure from unauthorised eyes.

Prodata will now create the database file, which is now available for editing. Of course the database is empty at the moment. To prove this, press Esc to get back to the main menu and select Display/edit records.

Prodata will inform you that there are no records in the file and would you like to insert one. Well, now is as good a time as



Filtering allows you to selectively choose which records to display, using a special filter expression



One of Prodata's most powerful features is its ability to print records in a variety of user definable layouts. Comprehensive printer options are also available

Prodata CoverDisk offer

Prodata
v1.1
manual
Only £12

Prodata
v1.2
manual
Only £30

Make the most of the free Prodata software on this month's CoverDisk by buying the user manual for only £12 or the upgraded version and manual for only £30

Prodata v1.1 manual

This extremely well written, comprehensive manual covers all of the powerful database's features. Full of clear and concise information, the manual will help you get to grips with this outstanding software – thoroughly good value-for-money.

Prodata v1.2 upgrade and manual

Some of the many benefits that Prodata v1.2 gives you are:

- Pull down menus
- Option to run on special custom screen
- Instantaneous filtering
- Display only the records you have selected
- Variable fields and variable totalling
- Automatic record numbering
- Prologue form
- Improved line drawing
- Merge databases with check for duplicates
- Export fields in any order
- Enhanced file selector



PRODATA ORDER FORM

Fill in this form and send it to Prodata Offer, Arnor Ltd, 611 Lincoln Road, Peterborough, PE1 3HA, or telephone 0733 68909.

**ATARI
ST USER**

Please send me

- Prodata v1.1 manual for £12 (incl p&p)
 Prodata v1.2 upgrade and manual for £30 (incl VAT and p&p)

I wish to pay by...

- Cheque/postal order payable to Arnor Ltd
 Credit card

Expiry date /

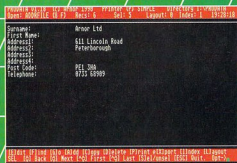
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Tick this box if you do not wish to receive promotional material from other companies



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ST FORMAT 85%**ST ACTION 82%**£25.99
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ARMOUR-GEDDON From Psygnosis

ST ACTION: "Don't find time to play Armour-Geddon. Make time"

Can you save what's left of humanity from a deadly new weapon? Control up to 6 vehicles at once, build up your arsenal and help create your own new weapon system. Also features a serial link option for head to head action

ST ACTION 90%£25.99
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TIMEWORKS 2 From GST

Timeworks was probably the world's most popular DTP package for the ST; now TIMEWORKS 2 is available "an excellent buy for both beginners and experienced users alike" ST USER.
It's faster and more efficient and has a range of extra fonts. All in all a terrific package.

£129.95
R.R.P.**Our Price
£49.95
Much less than
half price!****POST & PACKING £1.00 PER ITEM**

TITLE	QTY	PRICE INC P&P	TOTAL
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DYNABLASTER (1 MEG)		16.49	
D/GENERATION (1 MEG)		10.99	
PREMIER MANAGER		13.99	
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**POST TO: MULTI FREQUENCY
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CARD NO:

EXPIRY DATE: Allow up to 28 days for delivery
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This program should come with a government health warning, something like "InShape seriously upsets your work schedule". It certainly gave me more of a suntan than busy computer journalists normally have the opportunity to attain.

The reason? For the first few days of exploring InShape, I just could not stop designing new pictures, and since most of them took somewhere between two and six hours to draw, I had plenty of time to sit in the garden, sipping endless cups of coffee while perusing the manual for further tricks to try out.

And no, I don't have a particularly slow computer - a 6Mb TT030, in fact. Indeed the current version of the program doesn't run on anything less than a TT.

This gives you some idea of the enormous demands placed on your computer's processing power by what InShape does.

It also explains why this sort of thing has not been common on Atari computers before; they simply would not have been able to cope with it.

InShape is no ordinary graphics application but a 24-bit, true-colour ray tracing package. Ray tracing, to put it simply, is vector drawing not in two but in three dimensions.

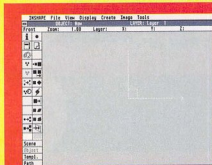
Objects are not only calculated in horizontal and vertical dimensions, but in depth as well, and can be rotated around three rather than two axes, and are illuminated by freely-positionable light sources, casting shadows as well as



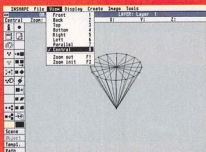
reflecting and refracting that light. Using keyframes, these 3D images can be automatically animated, too. And all that in 16.7 million colours, incorporating

Stunning results from InShape

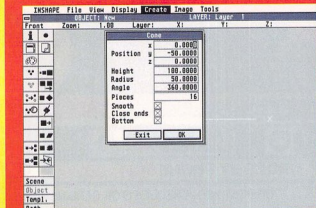
scanned images, and capable of producing TIFF graphics files ready for incorporation into DTP pages or further editing by other software. The mind boggles!



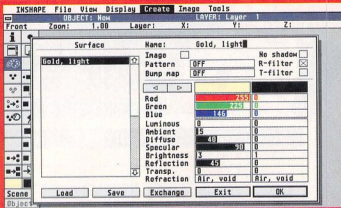
This is where you start a new file; in the object editor, in the default front view, only the x and y co-ordinates are visible, but this is deceptive. You can either call up one of a selection of basic object shapes in the Create menu, or design your own by setting individual points, lines or areas



So far, the objects were mere wireframe models without any physical surface characteristics. This dialogue lets you assign a surface, either by loading one of the sample surfaces supplied with the program, or by defining your own using colours, patterns, bump maps (surface irregularities) and different light settings



The position co-ordinates of the cone created here refer to the centre of its base. Using the default values here, -50 on the y axis means that the centre is at zero since the radius is 50 and the cone's diameter therefore 100. Making the y value -100, for example, would move the cone forward so that its back end touches the origin of the y axes, and positive values would move it further away



The object being created can be viewed from any angle and viewpoint, and any of its points manually edited, new points be added and points deleted. You are not limited to the pre-set perspectives in the View menu, but can set your own by using the interactive rotation icon - you choose the rotation axis from a dialogue and use the mouse to drag the object into the desired position

Günter Minnerup's super-fast TT finally meets its match in InShape, a revolutionary new graphics application from Germany

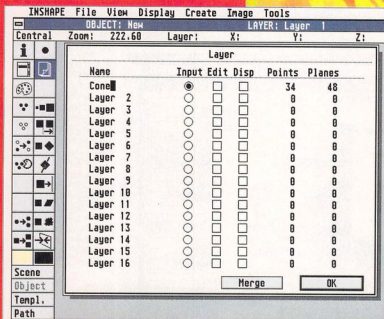
The third dimension

Well, so did mine and my TT's Motorola 68030...

Contrary to what you might expect after this description, InShape is not a particularly large program, fitting comfortably onto an ordinary double density floppy. You obviously need a hard disk (as well as a colour VGA monitor), though, because of the large files that can be created the maximum image size is 4,096 x 4,096 pixels.

It consists of three major parts: the Object editor, the Scene editor, and the Shader. Even when you are not creating animations, it helps to think of the creation process in terms of photography or film production: You arrange objects in space, arrange background and light-

Complex objects are much more easily edited by splitting them up into distinct layers, of which a maximum of 16 are available. There is no danger then of editing operations affecting other layers, and you can assign different surfaces to each layer for objects composed of different materials and colours



Falcon gets ray tracing

Thankfully, this marvellous piece of software will not be confined to TTs for very long. CGS ComputerBild, the UK distributors, tell me that a Falcon version is imminent, and will come in a package including the sorely needed maths co-processor for a very reasonable £199. The current TT-only version, in fact, is only £149 since TTs already have a co-processor.

Only a little bit further down the road is InShape v2, likely to sell at around £200, but little is known yet about its additional capabilities. I wait with bated breath.

ing, and then position the camera.

The Shader, finally, does the "shooting" by calculating the finished image. There is also an image file converter, for importing and exporting graphics to and from InShape's own .IIM format.

The 150 pages of the manual – of which I have only seen the original German version – are a rather rudimentary affair, quite usable for quick reference to the menus and dialogues, but very brief on the tutorial and explanatory side so that a lot of, er, time-consuming trial-and-error is needed before you master the techniques involved.

The user interface is very slick and fast, but not very interactive or intuitive: for the most part, you do not "draw" in the traditional sense by clicking, dragging and moving the mouse pointer (as in ordinary, 2D vector graphics) but enter numerical values into dialogue boxes.

Guessing these values with any sort of precision takes some time if you are not used to thinking in spatial terms but the

speed at which the screen is re-drawn makes this learning process fairly painless.

The speedy screen redraws refer to the Object and Scene editors only, of course, which display the "camera view" in simple outlines – it is the Shader that takes hours once you commit yourself to seeing your design in full glory.

REFLECTIONS

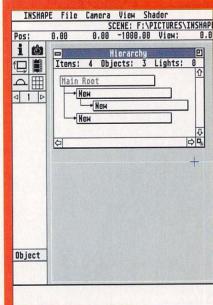
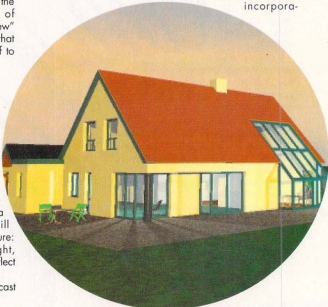
Another concept that is difficult to grasp initially is that of the light source, and the effect of light on the different surfaces which you can assign to your objects.

If you don't define one or more light sources, you will get a completely black picture – not very useful at all. If you point a "sun" or a "spotlight" at an object, much will depend on that object's surface structure: Grass will absorb most of the light, diamonds will refract and mirrors reflect it.

And then there are the shadows cast

by objects which can either ruin the picture completely or give it that classy, photo-realistic final touch: the road to success is paved with experimental failures.

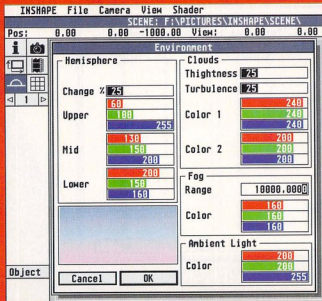
The time and effort required to get on top of InShape, however, is well worth it. The very high accuracy of the program – objects and their positions can be defined to 1/1,000th of a millimetre – and the ease with which objects can be rotated in 3D makes it extremely useful in technical applications such as product design and development, while artists and illustrators will appreciate the subtle shading and 3D photo-realism, and especially the easy incorpora-



The Scene editor is used to define relationships between objects and the general environment. The hierarchical order of objects means that each one is dependent on a root object to which all its positional and dimensional settings relate: if, for example, the root object is moved, all its subordinate objects will move with it – useful for ordinary edit operations, but especially for defining animation keyframes.



Each entry into the hierarchy is known as an "object unit" and has a dialogue attached to it. Here you assign an object name to it, decide whether it is to be hidden or visible (light sources are often hidden), and position its associated light source. Objects such as candle flames can, of course, have their own light sources. The rest of the dialogue applies to the creation of animation keyframes: enter the values by which an object is moved, rotated or scaled each keyframe, and the program will automatically calculate all intermediate frames.



The Environment dialogue defines the background against which the objects will appear, or at least the "above surface" (above the x axis) part of it. All kinds of climatic conditions can be simulated by altering the colour of the sky, the cloud density and turbulence, and introducing fog. The ambient light setting is crucial for the overall atmosphere of the finished picture, although the effect depends a lot on the surface properties of the objects.



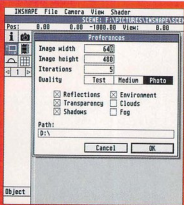
tion of scanned images.

The animation features offer new dimensions (no pun intended) in video tiling, with the ability not only to move the objects themselves, but also the colours and position of the light source and the camera position and angle.

Unusually for v1.0 of any program, let alone one as powerful and complex as this, InShape is very stable indeed and I

have still to find a way of making it crash. This is all the more surprising as it appears to have been developed by a single individual in his spare time rather than a programming team backed by all the resources of a major software house – but then again, perhaps that is the secret of its quality.

Better documentation, though, would be of real practical help to users unfamiliar with the logic of ray tracing, and more interactive methods of object and scene design would also be a great improvement.



Which ones of the environment settings apply to the final picture depends on the options checked in the Preferences dialogue – you'll hardly want clouds and fog in design modelling, for example. Although the default setting for the image size is the TT's medium VGA resolution, up to 4,096 x 4,096 is possible – it will take ages and produce a huge file, but can be useful to maximise image quality when reduced afterwards. The more iterations, the higher the accuracy of the calculations (the maximum is 20) but for quick test runs it should be set as low as 1. The "Test" and "Medium" quality settings are also supposed to cut down the time taken by the Shader to generate the final image, but even with 1 iteration and "Test" selected you may still be in for some wait

OK, I admit "cheating" here: this one was assembled from components supplied in the sample files. The carousel, however, is an easy example of how you would go about animating an image. If you create several key frames with the central structures rotated by a certain amount, the seats – since they are linked to that structure in the object hierarchy – will move with it. Oscillate the light source for additional effect, let the seats swing up and down a bit, and tell InShape to calculate the animation from the keyframes. That (more or less) is all there is to it

BOTTOM LINE

FEATURES

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Excellent
Good
Average
Bad
Appalling

EASE OF USE

A more interactive interface would be nice, but a little effort to understand the principles soon brings rewards.

Excellent
Good
Average
Bad
Appalling

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Excellent
Good
Average
Bad
Appalling

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Price: £99.95
Configuration: Atari TT030, with minimum of 4Mb RAM and VGA colour monitor

The choice is yours

There are already a few ray tracing packages available for the Atari range of computers but with the arrival of the Falcon ray tracing looks set to become very popular.

Apart from InShape, other commercial ray tracing packages for Atari computers include Xenomorph from Lexicon and distributed by 16/32 Systems.

Xenomorph takes 3D2 format objects created with programs such as CyberSculpt and produces stunning images. Its features include texture mapping and simple GEM interface.

And the soon to be released Xenomorph 2 will contain improvements such as MultiTOS support – with the ability to render images in the background whilst you use other packages.

Other additions will be a completely revamped user interface and improved textures, bump mapping, colour splines and coloured lights.

Another imminent release from Lexicon is Raystart, which will feature a built-in object editor for producing 3D2 compatible objects.

It will also include parallel, point, ambient and spot light sources, options for interpolation, mirror, transparency, convex, reflections and more. But in addition to the commercial packages mentioned above there are also

some very impressive ray tracing programs at public domain and shareware libraries.

The most popular and impressive of the bunch is the Persistence of Vivion (POV) raytracer. The results from this package are stunning.

POV uses a scripting language to create images but is much more difficult to use than a GEM interface though its results can be outstanding.

DKB is another PD ray tracer and from which POV was originally developed. As such, it is operationally similar to POV but lacks the flexibility of its cousin.

GFA Raytrace is another commercial package from GFA Datamedia, available for £20. It's also the first raytracing package that appeared for the ST.

It's very easy to use through its GEM interface but output is limited to 512 colours as opposed to the 24-bit stunners of POV and DKB.

QRT, another PD program, uses a script file much like DKB and POV. However, it is less flexible in that features such as rotation and texture mapping are unavailable.

Twenty-four-bit RAW images are produced but visible errors such as stray pixels occur due to the less sophisticated mathematics. It's easy to use, however, and quite fast.

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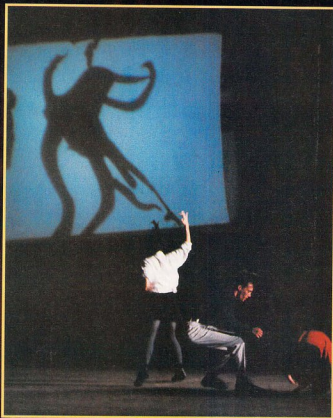
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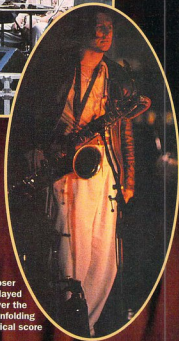
...No COMPROMISE



Damian Gasgoine's striking animations provided the backdrop to a feast of music and dance



Setting up the equipment. Can you spot the ST?



Composer Ben Park played live over the freshly unfolding musical score

Setting the

Should you happen to have wandered past the unassuming concrete staircase which leads up to the roof of the Queen Elizabeth Hall on London's South Bank one balmy Saturday night this August, you would not have failed to notice the mill of people and music therabouts.

Up the staircase on the roof, 200 people were watching a performance of dance, music and projected animation which stretched the limits of modern computer technology to its limits in order to exist.

The event - whose name this article has borrowed for its headline - was part of a series, sponsored by London's *Time Out* magazine, of performances in the outdoors.

Free to the general public, *Setting the Night on Fire* was a combination of contemporary dance choreographed by Fin Walker, a new film animation put together by Damian Gasgoine projected into black and white onto a wall, and an original jazz-based musical score written by composer Ben Park.

One would not be surprised to find a couple of Atari STs controlling the musical side of things. What was eyebrow-raising was that the music seemed to be

Phil Morse reports from London's South Bank on an artistic performance which did just that - with the help of two Atari STs

changing with the movements of the dancers.

Sometimes they would touch a wall and a beat would come in, sometimes the bass would seem to weave its way downwards as a dancer moved in a certain area and rise again as he moved somewhere else.

In short, there seemed to be musical improvisation going on as the performance unfolded, but the only musician apart from the occasionally clarinet-blowing composer was a 19in rack of flashing lights and glowing LEDs.

The performance - a magical myth unfolding into a fantastic sense-flooding half-hour celebration of man's reliance upon fellow man - was slick and inspiring. But how on earth were a bank of electronic equipment and a couple of STs managing to sense what the

dancers were up to, and play music which responded to that?

The answer, as Paul Sanders of Oscar Music (the technocrats behind the computer side of things) patiently explained, was Midi performance package Slave Driver.

With this software running on a 1040STE and the help of some ingenious hardware alongside a Mega ST running Cubase, a system was running whereby the performance's dancers could press specially made switches dotted around the performance area to



(left to right): Fin Walker (choreographer), Ben Park (composer) and Damian Gasgoine (animator)

Equipment behind the big show

This diagram details how the hardware – much of which had to be especially made – was set up.

The switches (1) – crude but functional – were made for the performance by John Price at Kenton Electronics. They were triggered by the dancers when the music was to change to another section – the introduction of drums, for example.

The "Spider" (2) – another Kenton Electronics creation – was used to convert information from the switches into Midi messages readable by Slave Driver. Meanwhile, these three SoundBeam sensors (3) were ultrasonically checking out areas of the performance area for the presence of the dancers – or anyone else!

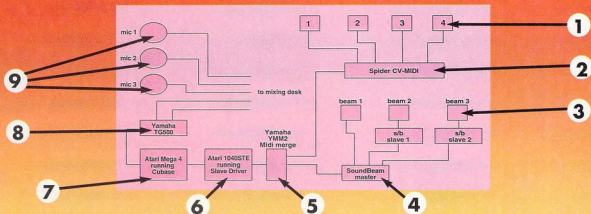
The SoundBeam master (4) converted the information into Midi Data, and the Yamaha Midi Merge (5) did just that to the two incoming sets

of Midi messages, passing them to Slave Driver (6), under the control of the 1040STE.

The overall musical performance was controlled by Cubase running on the Mega 4 (7). A Yamaha TG500 synth (8) actually made the music, and Ben's own live playing was relayed by microphones (9) to a mixing desk and the loudspeakers.

You might guess that with such an amount of untested, custom-built equipment, something would be bound to go wrong. Well, apart from the speedy correction of teething Midi problems by Paul Sanders and Philip Crowdon from Oscar Music, there were no hitches whatsoever on the electronic side of things.

The only minor problem was a mechanical one – one of the switches used to trigger Midi events itself broke down. Hardly a show-stopper...



night on fire

trigger Midi events and so the progression of the music. Not only that, but – using a set of ultrasonic sensors which work a little like the type of burglar alarm that senses movement – the very presence of dancers in certain areas was also triggering music.

As you can imagine, nobody was quite sure what the outcome would be – indeed, attend two performances and you could be guaranteed a different musical score each time! As Paul

explained to me: "If someone walks across there [pointing at one of the ultrasonically-covered areas] they could trigger the music in the same way the dancers are meant to!"

As it happened, of course, the show was a resounding success. Paul Sanders' appraisal of it was a simple: "Yes, yes, yes!", which only goes half way towards reflecting the number of future ideas the event opened up in the minds of all concerned. With the advent

of Midi and now the sophistication of the currently unique Slave Driver, it may be expected that performances which blur the distinctions between visual arts, music and movement will become increasingly more popular.

Yet again, art has benefited from advances in technology, and it's all the more satisfying to know that the little box you play Lemmings on is right at the centre of it all.

Looking to the future...

As if *Set the Night on Fire* hadn't given the techno-buffs and the creative types enough food for thought, the continuing plans for the new technology are even more ambitious.

Paul Sanders told me of a company in Bristol who are working on a system which will create animations from Midi messages, which could in theory then be projected onto a wall like the filmed animation in this performance.

He spoke of Midi-ing up more dancers next time, and making it more obvious to the audience that the dancers are triggering music (if you've got it, flaunt it...).

Other suggested improvements include replacing the costly and temperamental ultrasound sensors with more sophisticated infra red devices, and using photosensitive cells to detect when a beam of light has been broken and pass on Midi messages that way.

Another ingenious suggestion was the use of modified metal detectors

alongside small pieces of metal mounted in the dancers' footwear as replacements for actual physical switches; this would make it easier for dancers to incorporate triggering a switch into their movements than the current method of physically having to press on a pedal.

And the whole team look set to have the chance to do all of this again... and again, and again. For an excited curator from Lisbon approached them after their Saturday performance and invited them to perform in Portugal, representing British contemporary arts, in the near future.

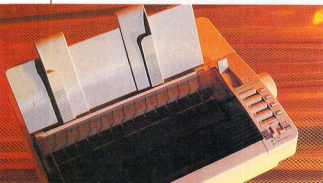
There are also plans to perform in France and Germany, with the possibility of British performances, including a showcase at the Riverside in Hammersmith, London, this November.

Sadly, however, as Ben points out: "You can't make money touring something like this in Britain."

Citizen Swift 90c

It was only a few years ago when Epson were wallowing along in mediocrity and Citizen took a big lead with the excellent Swift range of printers. Epson have rebounded with a vengeance of late, leaving Citizen to do the catching up.

Right down at the bottom of the market, Citizen have tried to make it their own with the Swift 90 range of speedy 9-pin dot matrix printers, offering both standard and cheap colour options. For such a cheap effort, the



Swift 90c has a surprisingly large foot-print. Still the top notch sheet feeder has been enhanced again, though making it slightly less convincing if you ask me, but it never did jam, just gave the paper a hard time going round.

There's automatic sheet feeding, which is a bit of a novelty at this end of the market, but a tasty feature nonetheless, and the traditional control panel has been given something of a going over.

Instead of an LCD display like its more expensive predecessors, or cheap, tacky buttons and lights like everything else at this price, there's the sliding button and label menu system.

NEAT OUTPUT

Two sliders move in two menu sockets, and as they do selectable options appear in four windows with buttons alongside. It's peculiar to say the least, but it works, even if it does take a little while before you know how to get everything on the menu.

The 90c isn't the quickest 9-pin you'll ever see, with a top speed of only 240cps — and that's using the ropey High Speed Draft font.

Still, if you want to print out listings or something it'll do the job.

What is 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-pin machines I could name.

The only difference between the standard 90 and 90c is that the latter has the colour ribbon option built in, and with those drivers available direct from Citizen you'll be able to make use of the colour option very easily.

The Swift 90 and 90c are sophisticated 9-pin printers, which may seem a contradiction in terms, but the features and output do belie the number of pins on the print head.

Type: 9-pin dot matrix
RRP: £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

Epson LQ-100

It won't be long before the 9-pin market has been completely crushed from existence by the weight of budget 24-pins. They don't cost much more and the print quality is miles better.

Witness then the Epson entrant to this market. Where traditionally the Epson numbers game has been headed upwards, an about turn has resulted in the LQ-100, and possibly the most normal, and dull, looking printer in their range.

Looks can however, be misleading, as beneath that extremely mini-

malist — no confusion spared — 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

Prints

Julian Harris courts a range of low cost dot matrix, inkjet and laser printers in search of the perfect partner for his Atari computer

After the initial computer purchase the most common item of expenditure on the shopping list is a printer. The trouble is which type — never mind model — do you go for? Will a 9-pin dot matrix suffice or do you need the speed and quality that a laser can offer?

With prices of high-end machines falling there really is no need to look to a 9-pin dot matrix for your printing needs unless your budget really is restricted or you're looking to print lots of text, like listings for debugging programs. Twenty-four-pin printers are slower but much better quality and you get decent graphics albeit at a pedestrian pace.

For anyone who is going to print predominantly graphics then an inkjet is a much better idea, and if quality, speed and graphics are the three main areas of concern it's time to take a look at some of the inexpensive lasers now appearing on the market.

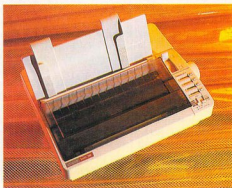
Citizen Swift 200

Like its smaller relative the Citizen 90, the 200 sports the same command panel with its sliders and buttons, which work 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 panel cartridges and you have a printer that's physically identical.

Where the difference comes in is the printer engine, where the 200 offers superb 24-pin quality, and has a colour option, but at a higher LQ speed (60 cps) than that of the 9-pin version. That said there is no high speed draft option and what you do get isn't so much Swift as not slow.

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 other printers in this price range, and while it may not be the quickest printer you'll ever see it gives some of the best output.

Large block areas are a bit greyish, but curves and jagged edges are well



with it. Another... this model is that you can prop it up on its end, though just why you'd want to make your printer unstable I really don't know.

As usual for an Epson ES/P2 printer, the output quality is top notch with finely curved lines and delicate text. The LQ-100 may be more rough and ready than the others in the range but it shares the same printing quality mechanisms.

Speedwise it's still pretty average because while it was nippy at 60cps in LQ mode it was also slow at 167cps in draft. Expansion possi-

bilities are limited, since there is no colour option, but considering the absurdly low price of this model it does lend weight to the argument that the budget 24-pins have already killed the 9-pin market off.

Type: 24-pin dot matrix

RRP: £210

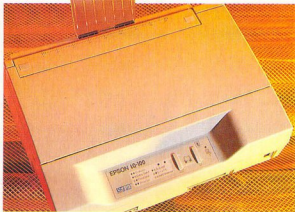
Speed: 167cps draft, 60cps LQ

Emulations: Epson PS/2

Typefaces: Draft, Roman, Sans Serif,

Courier, Prestige, Script

Buffer: 11k



charming

printed and standard characters come out very well.

The 200 also has the selling point that while it may sound like a dentist's operating theatre, it also sounds as if the torture is happening some way away. The noise is pretty horrible, but muted, especially if you use the quiet print function.

Quality wise you're talking better than tar, and 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

RRP: £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)

Star LC-200

While your average Star printer wouldn't win any beauty contest awards, they are usually very competitively priced. Cheap in other words. The LC-200 is no exception, offering bland looks, decent 24-pin performance, and an inexpensive route into colour.

Having become used to Star printers being particularly unpleasant looking, the curved styling of the wide front area of the LC-200 was somewhat refreshing. It looks good for a Star, but then that isn't saying much. The single sheet feeder slots neatly over the tractor, and there is a choice of exit holes for paper, including, would you believe, the underside.

The actual feeder is pretty good, though there's a slight tendency for paper to stick on a ridge inside and not hit the feed hole if you aren't careful. It isn't particularly bad, but it does occasionally happen.

You know when the paper is in though, because when it prints the LC-200 makes a

fair old racket, especially handling graphics when it starts to creach.

Controlling the printer itself is easy enough with the front panel being an old fashioned buttons and lights job. There are four LQ typefaces, and quite decent ones they are too. If you're printing from software that doesn't control the printer fonts then this is worth bearing in mind.

Quality wise it ain't bad, but neither is it brilliant.

Type: 24-pin dot matrix

RRP: £259

Speed: 225cps draft, 56cps LQ

Emulations: Epson FX850, IBM

Fonts: Draft, Sans Serif, Courier, Orator,

Script

Buffer: 16k



Fujitsu DL1150

The first impression of this offering from Fujitsu is that it's a giant toaster. It's almost Epson-like in its protruding upright design, especially since bits of light plastic casing snap off to reveal the angularly mounted print head.

Full marks for the strangeness, unfortunately nil points for the sheet feeder, which is tripe. It's poor quality and there are no guiding arms to aim the paper, so expect misaligned paper unless you use the tractor-feed.

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 decent size printer buffer for those longer text printing jobs. It also has a good range of emulations, 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, but larger areas of black tended to break up, and that's even accounting for the fact that the ribbon on the review machine has seen better days.

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

RRP: £365

Speed: 200cps draft, 60cps

Emulations: Fujitsu DPL24C, Epson LQ-

2500/2550, IBM Proprinter XL24

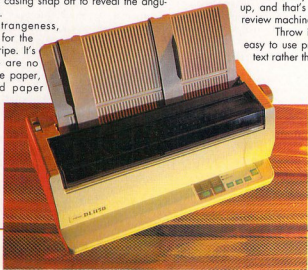
Fonts: Courier, Pica, OCRB, Prestige Elite,

Boldface PS, Dutch PS, Swiss PS.

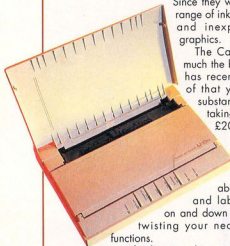
Non-LQ: Correspondence, Compressed,

Draft, High-Speed draft

Buffer: 24k



Canon BJ-10ex



Since they were first introduced, the Canon range of inkjets have proved a very popular and inexpensive route into speedy graphics.

The Canon under test here is pretty much the bottom of the range model, and has recently been upgraded. Because of that you can expect to see some substantial discounting from dealers, taking the price right down to sub-£200.

The BJ-10ex is a smart looking inkjet, being both portable since it runs off a battery, and slickly designed. What's odd about it is that the control buttons and labels are presented sideways on and down the front. Be prepared to keep twisting your neck until you memorise their functions. Paper feeding is a bit weak, since you can either stick a

sheet in the top and hope it doesn't become misaligned as it feeds, or use the underside feeder and have to balance your printer precariously on its end – not recommended.

Once in there though, it doesn't make much noise when printing, and it has to be said that 83cps in the LQ mode is quicker than a number of inkjets and most 24-pins. The draft mode is disappointingly the same speed, so there's no point in trying for a quick review of a page.

Quality-wise the results are impressive for such a cheap machine. Text has little of the traditional spidery quality associated with inkjets and instead is nicely rounded and formed, with just a little waviness giving the game away that this is an inkjet not a laser. On larger character and graphics the results are still as good, though large areas of the same shade tend to be a bit wishy-washy.

While not the sturdiest of machines, all the Canon series offer excellent value for money and pretty good quality of print, and if you go for a BJ-10ex you can expect to pick up a real bargain.

Supplied by: Gasteiner Technologies (Tel:081-365 1151)

Type: 360 dpi inkjet

RRP: £299

Speed: 83cps

Emulations: Canon BJ 130e, Epson LQ-510, IBM Proprinter X24e

Fonts: HQ, Economy

Buffer: 37K

Epson Stylus 800

The problem with the new range of Epsoms is that no two look remotely similar. Equally the control panel and operating mechanisms for each are completely different. Where the Stylus 800 got me initially was that there is no on-line button. Sacrebleu!

However, there is a paper out light, and very usefully, an ink out button. As is usual with the new Epsoms, it isn't immediately apparent where the paper goes, and as usual you have a choice.

You can either use the manual single sheet tray in the top, or you can fold out part of the 100 sheet tray feeder that feeds paper very efficiently into the bottom of this armchair-styled machine.

The printing takes place under cover of the back cushion part, which surprisingly can be lifted up to reveal not only the print head whizzing along with its 48 nozzles and 360dpi squirting, but also instructions for clearing paper jams, cleaning the head and other useful tasks.

Speedwise you aren't getting a competitor to a laser with a modest 225cps, but that's in top quality mode – the Stylus doesn't have any other. It's also much quicker than a dot matrix printer, and most of its competitors.

Compared to inkjets of old, the output of the Stylus is very good, especially considering how fast it is.

Graphics are quite solid but the characters do have a jogged rather than a spidery look. They aren't as smudgy as the HP Deskjet, and aren't as wavy as the Canon, merely not as rounded and more pointy than either.

It also sounded vaguely like an ambulance siren far off in the distance while printing, so you're unlikely to disturb anyone while doing so.

The only real similarities between this inkjet and the other new Epson printers is that it shares the ESC/P2 printing language, and of course, the quality of output.

Type: 360 dpi Inkjet

RRP: £379

Speed: 240cps draft, 45cps LQ

Emulations: Epson ESC/PS 2

Fonts: Roman, Sans Serif, Prestige, Script, Courier, Roman 1 (PS), Sans H (PS)

Ram: 1Mb



Mannesmann Tally HighPrint 730

When is an inkjet a laser? When it's a heat transfer-based ink-sheet printer, of course. I have to admit that I'd never seen anything like this portable printer as far as printing methods goes.

Under the bonnet there are two rollers, passing an ink covered sheet from one to the other. Using a heat transfer technique the ink is fused onto the paper passing underneath. Basically it's like a laser but with the ink already in place.

As a page printer though it's good to see that it comes with 1Mb of RAM as standard, which should be capable of most printing jobs. The HighPrint 730 is a portable machine, one that you can actually use on the move – perhaps if you used a portable or notepad away from your ST.

STANDARD EMULATIONS

It contains a battery unit (150 pages worth) and a charger (eight hours to recharge), and sports rather a strange single sheet feeder mechanisms.

This is a bit too delicate for my liking, especially if you're going to be moving it around. The paper rests against the back support, is gripped at the entrance to the printer and is stopped from flopping around by a Hannibal Lecter-like metal restraint.

Speedwise it's quite quick. Surprisingly, it is HP Laserjet II compatible too. The quality of output is somewhat strange, though. The characters are perfectly formed, but faded, as if someone had photocopied a photocopy of a laser printer output. And that's with the paper set as close to the roller as possible.

Still, it's easy to set up and use, has standard emulations, is quick and gives reasonable results so if you are short on space or need to print in different locations the HighPrint 730 is certainly worth considering.



Hewlett-Packard Deskjet 510

I must say that you get value for your money from the Deskjet, if only from the amount of space it takes up. Design-wise we aren't talking clean cut lines here either. It's very boxy, which is all the more mystifying considering how light and empty it really is.

The feeder can take up to 100 sheets, or 20 envelopes, at one time, but has a tendency to grab all the sheets and feed them through in one go. Pity really, because it's built in to the front of the box, and when the paper is fed through and printed there's an internal "out" tray into which each sheet is deposited.

PROFESSIONAL LOOK

The Deskjet certainly has that professional look, right down to the square, sensible buttons on the easy-to-use control panel. While it is quite quick, and is miles faster than the Canon, it can't quite catch the Stylus for pace, though it isn't far off.

What's good about it is that it's virtually silent,

and the quality of output is chunky but good.

If anything, this was the one inkjet that had that tell-tale spidery aspect which tended to fudge some of the characters, especially when printing small and close together. It's good for graphics though, since it is quick, and the curves and jagged edges on objects are curved and smoothed quite well.

The Deskjet 510 is a bit of a box, but it's an industry standard box, so getting drivers for it is hardly a problem. Now that it's also at a very low price, really not much more than the Canon, this is definitely worth looking at if you have plenty of desk space.

Type: 300dpi Inkjet

RRP: £329

Speed: 240 cps draft, 167cps LQ

Emulations: HP Deskjet 510, IBM Proprinter 1

Fonts: Courier, CG Times, Letter Gothic, Univers

Buffer: 16k

Star LC-20



Every once in a while there's a commercial success story that has little or nothing to do with the merits of the product involved.

Take the Nintendo Entertainment System for example. A piece of tat that sold by the bucketload.

The Star LC-10 was a similar case in point. It was a dismal 9-pin printer that was a best seller simply for the reason that it was just about the cheapest thing you could buy that printed this side of a piece of potato and a bottle of milk.

COLOUR TOO

The LC-20 is a direct replacement, offering this time three built-in typefaces, plus 24-pin quality, as well as ease of use thanks to a cheap looking front panel and simple internal mechanics.

You can even add a colour ribbon at minimal cost.

Basically you're looking at the budget end of the 24-pin market with this effort, since the quality is OK. A bit fuzzy maybe, but it's thankfully quieter than its big brother the LC-200, while offering only one less typeface.

Aesthetically the LC-20 is almost East European in its stark functionality, but if you're short of cash and need a 24-pin machine it is at least dirt cheap.

Type: 24-pin dot matrix

RRP: £189

Speed: 185cps draft, 45cps LQ

Emulation: Epson FX85,

IBM Proprinter

Fonts: Draft, Sanserif,

Orator, Courier

Buffer: 4k



Type: Heat transfer

RRP: £799

Speed: 6ppm text, 4ppm graphics

Emulations: HP Laserjet II, HP

Deskjet Plus, IBM Proprinter,

Epson LQ850

Fonts: Corpora, Swiss, Timor,

maths

RAM: 1Mb

Genicom

You probably haven't heard of Genicom, much less the anonymous sounding 7040EC. If you ever saw this printer on sale in a shop you probably wouldn't look twice either, and that would be a pity, because this is one of the best laser printers under £1,000 that money can buy.

Bold claims indeed, and really from looking at the thing it's quite a surprise to find out how good it actually is. The 100-page sheet feeder on the front isn't particularly brilliant, but it's good enough, and as far as styling goes the Genicom is immediately reminiscent of the genuine Hewlett-Packard Laserjets.

It isn't as boxy, being lower set, and the control panel with its eight buttons, four indicator lights and LCD info panel is easier to use.

Inside the casing the drum (10,000 page life) and toner slot together but can be replaced independently, saving quite a lot in the long run. The toner dispenser can also be refilled when necessary.

Emulation-wise this is a Laserjet III-compatible with the addition of edge enhancement technology built-in, and boy does that make a difference!

The quality is superb, even better than that of the low cost Epsoms, in that it is rated as a 4ppm printer it produces pages quickly enough

for any home user. Whether you need to produce piles of top notch text, or just lots of fabulous graphics and can't be bothered with the slowness and poorer quality of inkjets, this machine certainly does the business.

When your bank balance has recovered from the initial outlay there are a number of upgrade options that are very tempting. The first is a PostScript cartridge, next is a Hewlett Packard font cartridge slot, and lastly you can add extra memory by simply inserting SIMMs onto the internal tray [which is much cheaper than buying RAM upgrade kits for most printers].

While it weighs a tonne, it packs great features and quality into a small footprint.

Also, it has great expansion possibilities if you ever need to go to professional printing level. Look for it at around £700-£750 from dealers, at which price you could do no better.

Type: 300dpi Laser

RRP: 998

Speed: 4PPM

Emulations: HP Laserjet III, Epson FX-850, IBM Proprinter XL24e

Fonts: Bitmap - Courier, Lineprinter, Outline - CG Times, Univers

RAM: 1Mb



JARGON BUSTING

emulation

Most printers, rather than being odd man out, offer compatibility with the industry standards of Epson on the impact front and Hewlett Packard on the inkjet and laser front. Put simply, your printer will pretend to be a more standard variety so that you can use it with the maximum amount of software.

typefaces v fonts

Often confused, a typeface is a unique set of self consistent characters. When you get bold, italic or a variety of sizes of typeface it's known as a font. A printer offering 14 fonts may have only four different typefaces.

printer buffer

A term particularly important in dot matrix printers. This is an area of memory where the information to be printed is stored in the printer while it is currently printing. The bigger the buffer the sooner you regain control of your computer, though many software packages will use computer memory as a buffer so it isn't as vital as once thought.

bitmapped v scalable

Bitmapped or raster fonts are represented by individual dots, which means that if you expand their size then they get blockier. An outline or scalable font is a described font in that it doesn't matter what size it is because it is drawn from an internal description.

dpi

Dots per inch. The more the better, as finer text and graphics can be achieved. Generally lasers offer 300dpi while many new inkjets go up to 360dpi to try and circumvent the inherent slowness of their operation.

cps

Speed of text output in impact and inkjet printers in terms of characters per second. All the speed ratings listed here are for output in 10cps. Characters per inch (cpi) is how closely printed characters are on a page. Fifteen cpi is a squish.

printer driver

A piece of software that translates information coming from the host software into a language that your printer will understand and so print properly.

Epson EPL-5000

There are times when you begin to wonder whether Epson have employed a style consultant. The EPL-5000 is another in the range of their machines that bear no resemblance to each other, or indeed any other printer.

A general opinion of lasers is that they are large, heavy and expensive machines - you can see where you're money's gone. The Epson machine eschews a few of those standards by offering a very lightweight printer that's also compact and relatively inexpensive.

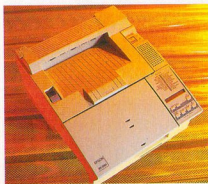
Designed like a sports car, the EPL-5000 slopes down at the front where underneath the bonnet lurks the paper feed and storage bay. If you've ever fallen over, banged a knee or otherwise cursed at the sheer clumsiness of most lasers, you'll love this.

All the options are available on the front-mounted LCD control panel, with not only the standard selection of features being available, but also useful utilities like how much toner is left and how many pages the machine has printed (useful for knowing

when the drum is past best). Internally, getting at the all-in-one toner-drum combo is simple, and the toner cartridge side will last for around 6,000 pages before packing up. A replacement imaging drum costs £117.

For a cheap printer it's also quite speedy at 6ppm and yet the print quality under HP Laserjet IIIIP emulation is pretty darned good. This is due to Epson's own curve resolution technology that's built in to anti-alias jagged edges.

The result is a quick laser who's only drawback is the modest 512k RAM inside - you really need 1Mb if you intend to print a lot of graphics. Still with RRP of £749 you can expect to see the EPL-5000 on streets at around £500, at which price I'd heartily recommend it.



Type: 300dpi laser

RRP: £745

Speed: 6ppm

Emulations: HP Laserjet III, Epson LQ & FX

Typefaces: Courier, Lineprinter

RAM: 512k

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WPR01 ST WRITER V4.2 and FIRSTWORD. The best word processors for the STE! plus a spell checker, print spooler and a selection of ready to use letters.

00007 THE WORLD OF STARTRK. Over 300K of text editors and biographies from the original STARTRK and NEXT GENERATION plus loads of pictures from both series. A must for all TREKERS!!

ARC04 TETRIS. superb Tetris game. KILAX TRIX. WELTRIS & TETRICE. 3 more good games on the Tetris theme. MR DICE. COLLAPSE & BURGER. 3 more good games to fill this super value disk.

WPR02 IDEALIST. Super multi column text printer. EX COLUMN. DUAL COLUMN. 2 COLUMN. 3 more good multi column text printers. DOUBLE PAGE. Print 2 pages at once on A4 on your SLM 804.

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Make temporary notes from within any gem program. PHONEPAD. Pop up telephone book. FLOPAK and ORGANISER. Everything a paper filofax would have and much more in these two programs. TYPEWRITE - Turn your ST into a typewriter.

ART 07 Superb art package. ideal for simple DTP. 23 built in fonts. A4 size paper works in monochrome for best quality of print. Ideal for leaflets etc. DS Disk.

BRD05 AMERICAN FOOTBALL. DALEKS. STARTRK. DELTA 3. CELESTIAL CEASERS (versions 1 and 2). SPACE VARS. RED ALERT. MATCH. HANOI. DGRF. 11 Board and Strategy Games. SPLENDID SELECTION!!

ARC12 BELM INTERACTUM - Good galaxians clone. BLOCKADE. HAUNTED HOUSE. AMORTRACK. BONG. INVADERS. MANIA. Another superb selection of arcade games.

ADV03 CONQUEST. Graphic adventure. Should take weeks to complete! (Shareware).

ADV06 BLACKWIND. Good text adventure with excellent graphics. DUNGEON MASTER NEW LEVELS. Needs original DM disk to play.

UTL134 SAGROTAN. Must be the best virus killer around. V.KILLER v3.84. Another excellent virus killer. EXORCIST. The latest version of this V. killer. HD RESTORE. Repairs hard drive boot sector. RIPPER & COPY. Two programs to grab music and graphics from tape to disk and more....

UTL120 ZX SPECTRUM EMULATOR. Needs 1Mb SPECTRUM to be ST DOWNLOADER. Gives details on how to transfer Spectrum games from tape to disk for the above emulator. ZX81 EMULATOR and 89 PROGRAMS.

ARC15 CYBERTECHNICS Fast & furious arcade game. CRAZY ERBERT fast &狠 clean. SLUG to fill the disk.

BRD09 MILE Excellent board game. D FISSION. Super Othello type game. TUNNEL VISOR Excellent maze game. 3 jigsaw puzzle games. ST TIC TAC TOE. PROBE-HIGH. BLACKJACK and more on this disk.

BRD12 TOWER POWER Super strategy game runs on 512K, 1Mb and 2Mb machine. Optional data disk available as BRD13.

ARC37 LLAMATOR and REVENGE OF THE MUTANT CAMELS. 2 superb games from Jeff Marter. These are a must for any game collection.

Family Roots

Family Roots is an invaluable aid to both professional and amateur genealogists. It is designed around an integrated workbench which allows you to create your family tree graphically on the screen by linking directly between the individuals. The powerful database can be viewed instantly at the click of a mouse button. The search function enables fast cross referencing and multiple scanning.

What The Press are saying about Family Roots-

"I can certainly recommend it if you are working on a family history - Family Roots is going to simplify your record keeping enormously and it is a pleasure to use." - **Micro Computer Mart**

"Certainly more than you'll ever need, unless you manage to trace your relatives back to Fred and Wilma Flintstone." - **Atari ST User**

"All in all, the best genealogy program available for the ST and well worth the money if you are considering tracing your family." - **ST Format**

To order your copy of Family Roots, send a cheque or postal order for £24.95 to the address below. UK postage free, please add £1.20 for Europe or £3.00 for Rest of World.

Stone Cold Sober

Stone Cold Sober is a graphic adventure for the Atari ST, STE, TT and Falcon. It runs on colour or mono displays (without the location graphics in mono) and is ideally suited to the novice adventurer. As the name suggests, you start your quest in a pub. Your journey will take many weeks to complete and will involve a considerable amount of thought and a lot of luck. There's an element of the supernatural in this one so beware! The program is entirely mouse driven and involves almost no keyboard input at all. Stone Cold Sober was written by Simon Brown, one of the best adventure game authors of recent years and it promises to keep you glued to your screen for hours (perhaps?) To order your copy of Stone Cold Sober, send a cheque or postal order for £9.95 to the address below. UK postage free, please add £1.00 for Europe or £2 for the rest of the world.

FALCON Software

2,000 DISKS OF PUBLIC DOMAIN, SHAREWARE AND LICENSEWARE

FALCON Software

After many years supporting the Atari ST, Floppystore was the first company to offer PD and Shareware for the Falcon 030. The Falcon section in our catalogue is currently the most comprehensive available from any supplier. Over the coming months, our support will further extend into several new commercial releases of our own, all of which will be compatible with the new machine, we also have Falcon specific software under development. This in no way lessens our commitment to our ST and STE customers. We remain firmly behind the entire ST range. Our full catalogue is disk based and simple to use. It has a powerful search facility and can output in printed if required. Floppystore are also distributors of the Budgie UK Licenseware range. All our Budgie disks have recently been reduced to just £2.75 each. For a free copy of the catalogue disk, send us a blank disk with a note of your name and address. Alternatively you can send a Cheque or PO for 80p and we'll supply the disk. Please make Cheque or PO (UK currency only) payable to Floppystore. Major Credit Cards welcome. UK Postage FREE. Overseas Postage to Europe £1.00 per order, Rest of World 10% of order value (minimum charge £2.00).

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Printing on the move



Andrew Wright replaces his trusty Deskjet with the compact new portable model

I've been a confirmed Deskjet user for two years now and there are very few jobs it won't do. Whether you're writing letters with a wordprocessor or producing final artwork from a DTP program, the combination of 300 dots per inch quality with a speed and ease of use makes the Deskjet unbeatable.

In recognition of this, the Deskjet has become one of the world's most popular printers and it is very well supported in the ST world, with drivers for most applications and several dedicated utilities.

The trouble is that it's an awkward shape and it takes up a lot of room – much more than some lasers and dot matrix printers I've seen. This is where the portable Deskjet model comes in – it is really intended for users of laptop PCs and other portable computers like the Stacy and ST Book, but it becomes an equally good choice for those without much desk space.

It is a 300dpi mono inkjet machine that comes in a surprisingly large box. However, the machine unit itself is a mere 310mm (12in) long by 65mm (2.5in) wide and 146mm (5.75 in) high.

It only weighs 2kg (4.4lbs), though those wanting to use it on the move will need to bear in mind the weight of the optional nickel-cadmium batteries and printer lead.

It is so compact and well designed that it can easily be kept tucked away out of sight until it's needed, but even if it is in constant use, it can fit virtually anywhere on your desktop.

CHARCOAL GREY

Unlike the Deskjet 500 series, the portable is a dark charcoal grey and in fact almost black, presumably to match the style of most portable computers. Much as I hate to admit mishandling review products, I can testify to its sturdiness when it decided to leave my desk and look for a better position on the floor. After that I discovered the handy little stand on the base that swivels round to stop it falling over...

With the printer you get a 3ft long parallel cable that plugs into your ST, a mains adaptor for the power, an ink cartridge and a 200-odd page manual full of clear diagrams and useful information on commands and character sets.

The portable uses the same cartridges as the Deskjet 500 mono series which means it should be very cheap to run. I use an £18 long-life ink cartridge every two months or so and that is with a great deal of DTP proofing and messing around with review products – most users won't need to replace cartridges anywhere near as often.

It should also work with the inkjet refills that are proving so popular, including the System Insight colour refills, and as it's perfectly possible to replace a cartridge inside five seconds, swapping them over isn't a problem.

Of course, you can't cut down a printer to this sort of size without leaving something out and there are no prizes for guessing that it's the paper

handling that suffers. On a Deskjet you can put around 70 sheets of A4 paper in the tray and the printer automatically loads it when needed. Apart from convenience, it has the advantage of accuracy as each sheet is fed in the same position.

With the portable, paper has to be fed in one sheet at a time by hand and there is some loss of feeding accuracy – I found that one in five sheets went through at a noticeable angle though with more practice I suppose it could be overcome. You can actually buy an add-on sheet feeder for around £80 which doesn't take up much more space. At least the paper has a completely flat path, which means it will cope happily with transparencies and A4 sheets of labels. It doesn't crinkle the paper either, as lasers are apt to do.

The control panel has six grey buttons and nine indicator lights. There are buttons for draft/letter quality mode, changing paper orientation, fonts and settings, and issuing a line or form feed command.

Unfortunately not all the printer's internal fonts can be accessed from the control panel – fonts like CG Times and Letter Gothic can only be used if the software knows how.

As far as I know, only That's Write and Protext can use them, though as most decent ST applications print in graphic mode, this shouldn't pose a

problem. As far as I can tell, the Deskjet portable is completely compatible with the Deskjet 500 and newer 510. This means that most programs will work with it, including Didot, DA's Vector, Colamus, PageStream and Timeworks 2. The only grey area is GDOS – there isn't a freely available driver but a quick upgrade to FontGDOS or SpeedoGDOS will soon sort that out.

If space is at a premium or you need portability, the portable Deskjet must be top of anyone's list. The print quality is excellent – only marginally less crisp than a laser quality – and it is well supported by ST software. Forget your dot matrix – Ladbroke's are offering real printing power at an excellent price.

BOTTOM LINE

FEATURES

Lovely output quality and very compact.

Excellent
Good
Average
Bad
Appalling

EASE OF USE

Simple to operate and easy to get drivers for.

Excellent
Good
Average
Bad
Appalling

VALUE FOR MONEY

If you need good looking results, this is probably the easiest and cheapest way.

Excellent
Good
Average
Bad
Appalling

Product: Hewlett-Packard Deskjet

Supplier: Ladbroke Computing, 33,

Ormskirk Road, Preston

PR1 6BP

Telephone: 0778 803116

Price: £239.99

Configuration: Any ST, TT or Falcon – all you need is the right driver

African investment

I am a Namibian and bought my 520STFM while I was in exile in England. When I arrived back here in 1991 I discovered that the local market is almost entirely devoted to PC-compatibles.

Apples are beginning to come in now but in very small stages and Atari hardly ever get a mention, I have to rely on your magazine and mail order.

Mail order is not too helpful to me these days, as almost all programs come on double-sided disks and I have a single-sided drive – remember that?

As far as I know, all the other South African countries are in the same situation. I would like to appeal to Atari to make a bigger investment in the area.

I also have a question to ask. Is there a company among your advertisers who would send an internal DS/HD drive by post?

If so how much would the post and packing cost? I have a little electrical training and I am sure I could fit it with no problem.

Hugh Ellis, Namibia

Post and packing costs vary depending on how you want the drive to be sent to Namibia. The cheapest way is International Post at £16. The faster International Data Post costs £36.

Several of our advertisers can supply replacement disk drives to overseas customers – they include Ladbroke Computing, Power Computing, Evesham Micros and System Solutions.

Payment could give you difficulty. We are told that some South African countries do not allow money to leave their lands – check on the circumstances before you order.

Route to recovery

Over the last couple of years I have read letters about the demise of the ST in all the ST magazines on the news-stands.

Often I've thought it was just scare-mongering and have been heartened by the strong replies editors have returned. Now, I'm sorry to say, I can see the commercial end of the ST.

Why? I'm a member of the Home Computer Club. My last two orders are unavailable, they can't get the stock.

What is available is either very expensive, like Timeworks 2, or the type of thing that's in lower demand like Shuttle or Magnetic Scrolls text adventures. Also, I've got three non-busi-

**Got anything to say to the ST community?
Then this is your soapbox**

Write Now

ness computer shops locally. One only deals with PCs. Another does PCs and Amigas, but has only recently done away with Atari totally.

When I spoke to them they claimed they could not get hold of stock from any of the wholesalers. They used to trade in used software too, but nothing good was being traded in to them.

Now they have no interest in Atari. Falcon? No interest – maybe because the public, as opposed to existing Atari users, don't know of it!

The third shop? Yes, they deal in Atari – just. A half display rack was some decent software on it, but there is still more software on the old 8-bit Amstrad rack.

I could go on about Boots having six racks of computer games and console carts, but no Atari. Woolworth's carry computer games and carts, but no Atari.

I know the ST is no less a mean machine now than it was when it first came out. It's still a capable, affordable home or business computer with wide ranging abilities.

But if I could afford to, I'd consider a PC because it's supported. As it is, I'll make the best of my lot.

Even accounting for broken and dust-gathering machines, there are still hundreds of thousands of STs and their users in the country.

That looks like a trapped and starving market to me, a market that I think can best be filled by home programmers. I'm slowly learning machine code but thousands of other users can already program, and do it well.

To them, a plea from me. Please teach

others to program or get creative. The game creators in the major software houses are just people, like you and me.

We can create the same quality products if we try. If you wait for them to condescend to write the program you want, you'll be too old to find the large amounts of cash they'll want for it.

So, it's in our hands now.

Mike Barnard, West Sussex

Though most high street chains have dropped Atari computers, there are several firms still dedicated to the market – and indeed some are stepping up their ST coverage.

They are run by dedicated staff and generally offer high quality and friendly service. To ensure a bright future with your computer it is vital they get everyone's support.

But, like you say, there are a great many people who can program Atari computers very well. They could even make some extra money by selling their work as shareware.

Words to pictures

Could you please give me the name and address of a reliable company who can supply a video titler program?

There are not many programs for the Atari ST like this on the market and I would like to use it to improve my home-made videos with scrolling titles and so on.

Reinhard Papp, Germany

Video Supreme received a favourable review

Attitude problem in computer industry

I have become increasingly dismayed over the last few months at the attitude which many people in the computer industry seem to be taking towards the Atari ST.

They are frequently prepared to write it off as an inferior machine, with outdated technology and no software support. It seems many are condemning it to a premature death.

High street chain stores no longer seem to be stocking ST software, the only exception being Virgin Games stores.

All the shops stock Amigas, PCs, and consoles, and the ST is nowhere to be seen. The situation has to change.

Magazines such as yours should try to project the expanding section of the ST market – serious software.

Instead of dwelling on the fact that profit-hungry games developers are deserting our beloved silicon-based wonder, you should be looking at the bright side of things. The ST may be in decline, but it certainly

isn't dead yet, so don't fall into the same trap as the rest of the industry seem to have done, of treating it as if it is.

R Faulkner, Tetbury

I agree with your comments 'R' – we wouldn't dream of writing off the ST. Over the last couple of years you will have noticed that our serious content has improved. Not only are all our reviews and features written by experts and journalists, but we have also arranged all our games coverage into a single section.

Anybody wanting to read the latest games news and reviews can find the pages with ease, and it can be easily overlooked by those not interested in the leisure side of the ST.

During the next few months you will notice some impressive changes to the games pages as we merge our sister title ST Action into Gamer.

But rest assured, even as we put our effort into our games section we will not let the home productivity and small business pages suffer in any way.

**£25
Prize
Letter**

in last month's issue of Atari ST User. It is available from Goodman International's public domain library for £14.95.

They are at 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent, Staffordshire, UK. Telephone +44 782 335650.

Difficult entry

I am writing to ask how I would go about getting into computer journalism. I have an avid interest in computer games, applications and programming.

I have also taught myself assembly language programming to a high level and a sound understanding of the English language, both spoken and written.

I am 24 years of age and am educated to O level standard. How would I obtain employment with a magazine such as yours?

Name and address supplied

It's very difficult to get into journalism, especially for someone of your age without editorial experience. Pay is low at the start and demands are high.

If you had been younger I would have suggested work on a student newspaper or work experience in a newspaper or magazine office.

But you could attend a recognised journalism course, or try to get some freelance work - itself difficult for newcomers - so that you can show editors something at job interviews.

Be prepared for quite a few rejections, but persist and there's a good chance you'll eventually get a break..

Missed you

I visited the LeST Get Serious show in London recently and would like to congratulate the organisers who took the effort to arrange the event.

There are very few shows even featuring the ST, let alone having large areas where ST owners can go to see the latest products and get useful advice on using serious packages.

CGS, Compo Software and Titan Designs each had new software and hardware to show visitors, giving us users reassurance that there's plenty of life in the ST yet.

But it would have been nice to see some of the other companies that we hear so much about. What happened to HiSoft, System Solutions and JCA, for example?

Adrian Gray, Surrey

I'm sure the organisers will be pleased to read your praise - such events take hard work and time and there is often little feedback.

You visited the first in a series of shows and it was arranged just a few weeks before it took place.

Some firms in the Atari market did not believe they had enough time to arrange all the things they would need to do in the short time available.

But many of them say they will attend future shows. They are planned for London, Birmingham and Manchester before the year end.

Waiting to hear from you...

To join the ST chat show drop a line to The Editor, Write Now, Atari ST User, Europa House, Adlington Park, Macclesfield SK10 4NP

Porn on air

I read with great interest your article on computer pornography several months ago. It was well written and fascinating, and opened my eyes to just how great the problem is.

A few days later I was listening to Radio Four's Today program before leaving for work when I heard a report on the subject.

The reporter spoke of children downloading obscene images and animations from bulletin boards and selling them in playgrounds for the "price of a chocolate bar".

I was shocked to hear both this and the voices of some boys from Manchester who didn't seem to appreciate the illegality of what they had done by distributing this pornography.

Surely the Government or the police service ought to be doing more to stamp out this misuse of computing power?

Or will the situation continue to escalate until every child has such disks lurking in their disk box?

Martin Bellingham, Shropshire

The BBC based much of their research on the Atari ST User feature and sent the reporter to our office to witness first-hand how easy it is to access pornographic images.

The Cook Report also investigated the subject a week or two later and though at least one magazine dismissed the TV report as scare-mongering, we believe action needs to be taken.

Indeed, following the publication of Phil Morse's article, the Government have announced an enquiry into computer porn. Their findings will be published by the end of this year.

Publishing partners

I am setting up a small desktop publishing company now that I have retired, using my ST and my bubble jet printer.

I have bought Calamus, which was widely recommended by ST magazines including your own and have begun placing advertisements locally.

I would be interested to know what machines and software you use in the production of Atari ST User.

I would also like to thank you for what I consider to be the most varied and entertaining Atari ST magazine on the market. The articles are informative and to the point, and you do not devote too much of the magazine to games.

While I appreciate that games are a valid use of computers that deserve coverage, I don't like the way that certain rival magazines spread games throughout the whole magazine.

I shall certainly be renewing my subscription this autumn. Keep up the good work.

Mr J Heaton, Cardiff

STs are used by editorial staff who need to test products on the equipment for which they are intended, and most of our freelance contributors write their articles on either an ST or TT.

In common with most British publishing companies, however, our production department uses Apple Macintosh equipment.

We produce several magazines at Europress and it's important that each art team is completely compatible with others in the building.

ATARI ST USER

It's not what you know - it's
who you know!

TECHNICAL PROBLEMS

We are happy to answer your technical problems in our Advice Service. Send your letters to **Advice Service** at the address below

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If you have a news story, send it to **John Butters** at the address below. If your story is URGENT call him on **0625 878888** during office hours

GALLERY

We are always on the look-out for good ST art. Send your work to **ST Gallery** at the address below

WRITE NOW!

Got something to tell other ST User readers? Send your general letters to **Write Now!** at the address below

COMPETITIONS

Enter competitions using the details on the form. If you have any enquiries connected with our competitions, contact **Lucy Oliver** on **0625 878888**

PUBLIC DOMAIN SUBMISSIONS

PD libraries are welcome to submit their latest releases. Submissions should include a detailed list of what each disk contains. Jiffy bags to **Jonathan Maddock**

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If you have a comment about the editorial content of ST User please write to the Editor, **John Butters**, at the address below

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Please don't send us SAEs, we can't promise to reply to every letter so it really is a waste of your stamp. Sorry!

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Atari ST



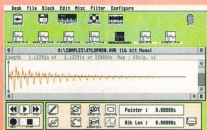
REPLAY

Replay 16 samples in 16 bit mono, at rates up to 48KHz and includes a host of useful software.

The **Editor** is the heart of the system - load 8 bit, 12 bit or 16 bit samples and convert between them, edit using cut/paste, overlay, loop, join, cross-fade, reverse & much more. Effects include echo, reverb, flange plus digital filtering, FFT etc. etc.

Many Utilities are supplied including a Sample Track Sequencer, a MIDI Sample Dump, A Drum Sequencer which plays up to 4 samples simultaneously and a complete MidiPlay package for extensive MIDI programming.

**High Quality
Sound
Samplers for
all Atari
Computers**



Both **Replay 16** (£129.95) and **Clarity 16** (£129.95) are available from all good music and computer stores. Please call for more information.

Falcon030



Clarity

Clarity 16 is our new Falcon-enhanced stereo sampler/editor software package which includes hardware to generate extra sampling rates: 16KHz, 22.05KHz, 44.1KHz (CD) and 48.0KHz (DAT).

Extra Features over Replay 16 include stereo direct to hard disk sampling and editing, direct from hard disk stereo playback, MIDI sample file transfer, an enhanced MidiPlay program that allows up to 4 different sample maps in memory & complex keyboard maps (up to 128 samples) plus a new multi-voice drum machine with high sample rates and stereo image output.

Atari ST

Falcon030

£69.95

VIDEOMASTER

£99.95

inc TruePaint



**Integrated Multimedia
Video & Audio Sampler
for your Atari
ST/Ste/TT/Falcon030
Computer**



Videomaster combines the beauty of a video digitiser, the fun of a sound sampler and some superb software to create a truly revolutionary package that is great value for money.

Digitise monochrome video clips, quarter screen, from a video recorder or camera at up to 25 frames/sec and save the film to disk. Produce greyscale stills or colour stills using the filters provided.

Add Audio using the built-in sound sampler and editing software or use an external sampler such as Replay 16, StereoMaster, Megalosound etc.

Make your own Movies by using the built-in video sequencer to combine video clips with recorded or imported sounds and then build up movies as a sequence of clips with an audio soundtrack. Additional playback modes include a picture-in-picture facility.

Falcon Videomaster takes advantage of many of the features of this new, exciting machine to give you a video digitiser which offers an un-rivalled set of features at an amazing price.

Additional Features over the standard Videomaster include 64 level greyscale digitising, 25/30 frames per sec (real-time, quarter screen mono) with 16 bit stereo soundtrack, an enhanced sequencer with 256 colours per frame & 16 bit stereo audio and an enhanced VidiPlay program.

Superb Skills are available by using a camera/camcorder & the colour filters provided to produce true colour or 256 colour pictures in resolutions from 320x200 up to 640x480. Or use our new RGB splitter and a video recorder. Then save the stills in TruePaint format.

Videomaster Falcon will carry a distinctive Falcon-enhanced sticker.



microdeal

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Fax: +44 (0) 525 713716

With the birth of the personal computer three big applications came into existence – wordprocessors, spreadsheets and databases.

They all quickly grew very complex but remained separate with no easy way of directly exchanging information.

To overcome this and other problems the integrated package was conceived, comprising all three applications in a single program. And that's exactly what Atari Works is!

Not only are all three of applications instantly available but data can be freely exchanged between them.

For example, a series of spreadsheet cells or a number of database records can simply be cut out and then dropped into a wordprocessor document.

The program was originally called Sutra, reflecting the Indian origins of the author, Pradip K. Fatehpuria. Atari were

Database

The AW database (DB) comes with a standard complement of database features. What makes it different from most other databases is its ease of use and fancy SpeedoGDOS fonts.

The ease of use comes from its GEM-based user-interface and clever program design. Before a database can be used it must be created. This is done by selecting New from the File menu or the initial dialog box. The system then automatically keeps prompting you for a field name until you have enough.

You confirm this by clicking on Done and you are presented with a computer generated form containing all entered fields. The fields are tiled in a fairly pedestrian fashion and they all default to text type. This is easily remedied by clicking on a field and selecting File attributes item from the Format menu.

There are five different types available: text, number, date, time and scientific. Having adjusted the type you can change the field size by dragging the field out or in until the desired size has been reached. A real time display in the upper left corner shows the current field size in digital form. Rearranging fields in a form is just as easy. Simply click on the field name and move it anywhere within the window. The size of the total form area is not limited to window or even to screen size. The visible area is literally a window into the actual form and it merely reflects the fields being processed. The window will automatically track an active



The Atari Works data base has the standard complement of database features without unnecessary clutter

Atari Works hard

so impressed they took the author over to Sunnyvale.

Atari Works (AW) runs on Atari ST/Falcon computers of all ages and persuasions, so long as there is at least 1Mb of memory, although a hard disk 2Mb of memory are strongly recommended. Several spreadsheets, databases and wordprocessor documents can be opened simultaneously, so the more memory there is the better.

In terms of resolutions AW runs in any mode that supports at least 80 columns and it is fully MultiTOS compatible.

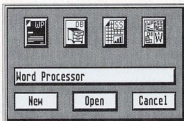
In countries where it is already on sale, the package comes with SpeedoGDOS including 14 BitStream fonts. Speedo handles all output both to screen and to printer. Changing printers

is quite easy and involves simply choosing a different driver. AW can be run without Speedo but the screen output then defaults to the system font and printing is not possible.

Just like MultiTOS before it, AW comes with a user-friendly installation program. Atari must be given credit for this since it makes installation a breeze for a casual home user.

Having started AW the user chooses one of the three main applications, or performs a generic open file and lets AW figure out the application automatically.

The menu bar reflects this choice as each application has its own different set of menus. Only the first menu, File, is identical in all three Atari Works applications.



The main dialog box offers the user the choice of three applications – word processor, database and spreadsheet – or a generic open where the program figures out the application automatically



Each of the three Atari Works applications has its own unique set of menus but the "File" menu – performing general file operations – is identical in all three

Spreadsheet

The AW spreadsheet (SS) is, like the DB, fairly standard when it comes to features. What makes it stand out, however, is the use of SpeedoGDOS fonts.

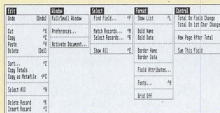
This, together with a powerful graphic module for creating all sorts of graphs and charts, makes it easy to create impressive presentation documents.

It uses and understands the Excel command set but is not Excel compatible on file level – at least not yet!

Like the WP before it, the spreadsheet is not only fully WYSIWYG but all updates take place in real time. Changing a figure in a cell automatically updates all relevant and visible charts and graphs.

By using GEM extensively this part of the package is very intuitive. For example, to change cell width simply click on column title divider and drag it to desired size.

To aid in this the current size is also displayed numerically. The same ease of use goes for various other operations such as cut, copy and paste.



In addition to functions shown here Atari Works spreadsheet understands the industry standard Excel command set which makes it very well suited to a small business user

But keyboard jockeys are not left out either, as most functions have a shortcut equivalent as well as a menu entry. In general, most actions are two part.

First, you have to indicate the object of the action by selecting a cell or a range of cells, and second, invoke the action either with a shortcut or from the menu.

This ease of use is particularly well suited to the home and semi-professional user AW is aimed at.

field and scroll as necessary. This means that a form created in one resolution can still be used in a different resolution even though the screen sizes may differ.

An easier way of entering data is by importing it. There are three types of files which can be automatically imported into AW DB: tab-delimited ASCII, comma-delimited ASCII and database (DBF).

Once the data has been entered, the records can be viewed one at a time by using the previously created form. Cursor/up and cursor/down will scroll through the records one by one, while the upper left corner shows the number of the current record out of the total number of records in the database.

To get a particular record on the screen click on any field and use the Find field menu item. There are no keyfields or indices to worry about, just type in what you're looking for.

For a better overview of several records a so-called list display mode can be chosen. In this mode the records are shown in a grid, somewhat akin to a spreadsheet.

If the order of the fields in the grid does not suit you simply click on the field name and move the whole column. You can also change the size of the field by dragging it out.

Overall, the AW DB has a sort of a Macintosh feel about it. Because of its intuitive design even a total beginner will still be quite comfortable.



The data base portion of Atari Works has a Macintosh feel about it and its intuitive interface makes it easy for everyone to use.

Don Maple previews Atari Works, an integrated package featuring three major ST and Falcon applications

for you

to fancy outputs, although rarely used features such as indexes and outlining are not supported.

AW WP uses its own internal file format but can import plain ASCII files. The text is then displayed in the default font.

One general problem when importing ASCII are extra carriage returns at the end of each line. Normally, a filter

program must be run first to eliminate these.

In AW WP, however, a selected portion of text can be cleaned-up by simply pressing Control-M. But what makes AW WP a cutting-edge application is its ability to import RTF files.

RTF stands for Rich Text Format and is a Microsoft invention. In the absence of wide acceptance of 16-bit ASCII this RTF

There are five different cell types: general, fixed point, currency, percent and scientific notation. Conversion is simply a matter of selecting a cell and then clicking on the new format in the menu. Entering cells is simply a question of typing in the values. The cells can be aligned left, right or centred.

If the spreadsheet information is already available as computer readable data it can be imported straight into the program.

There are three formats to choose from: tab-delimited ASCII, comma-delimited ASCII or database (DBF).

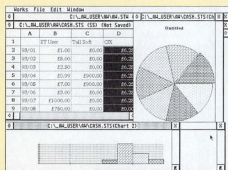
Formulae are, by their nature, somewhat more complicated. Once you have learned the keywords the formulae can simply be typed in just like an ordinary cell.

However, a much easier way is to use the Paste function in the Edit menu which lists all available keywords. Simply click on function of choice and then click on all cells you wish to have in the formula.

You can also include a range of cells. The

formula itself is created automatically before your very eyes. If it just doesn't get any easier than this!

There is a total of 53 functions at last count. They range from the boring, yet necessary, Sum to exotic, but also useful, StDev (standard deviation)



Thanks to SpeedoGDOS the Atari Works spreadsheet is not only fully WYSIWYG but makes the figures look very attractive when imported into a presentation document

format is increasingly tipped as the ASCII of the future.

This is because in addition to the characters themselves RTF also preserves all other text attributes such as size, style and font.

AW WP handles multiple documents. Existing documents are Open-d while New documents are created.

The resulting window contains two optional lines – a ruler and a tool bar – which can both individually be toggled on and off. The ruler can be either metric or imperial.

The WP tool bar contains icons for most commonly used functions and it shows many of the current settings. The box on the far left displays current page number.

Clicking on the next box to the right invokes a drop-down menu with current page formats. The following four boxes select/show text justification: left, right, centred and full.

The next three boxes are for line spacing: single, line-and-a-half and double spacing. There are four possible tab settings: left, right, centre and decimal.

The following box is very interesting because it allows the assignment of different fonts to function keys. Next are the buttons for various text attributes: normal, bold, italics, underlined, outlined, superscript and subscript.

The last three boxes draw graphics. The first one is used to get the text cursor back while the other two have drop-down menus with a choice of graphic primitives and line widths.

All graphical user-interface commands have a short-cut equivalent indicated alongside the relevant menu item.

Overall, the editing features of AW WP are excellent. Most are based on first selecting a block of text with the mouse.

Any subsequent actions such as cut, copy, paste, reformat, even spelling checks are then limited to this block.

But what makes the editing in AW WP such a pleasure are the little things. For example, the search function has its own

and ATan (arctangent).

Since functions rarely define a small language you will also find if, IsBlank, IsErr and so on.

The spreadsheet is also intelligent. When copying a formula with relative cell references they are updated to reflect the new location. If, for whatever reason, this is not desired absolute references can be used instead.

Numbers are fine, but to really grasp their meaning at a glance we use graphs and charts because they have higher information content.

Here there are two basic types called Series and Pie charts. Series is really a fancy name for the good old bar/line charts. There are four to choose from: Line, Bar, Stack and Combo.

Creating charts and graphs is again very easy. Simply select New Series or New Pie and enter the required data in the dialog box. Having done that click on Plot it! to close the dialog box and see your data.

The definitions are remembered and can be invoked again at a later time. The graph window can be resized with contents being automatically adjusted to the new size.



In addition to menus all essential word processor functions are available from the tool bar which appears on top of each window



window so you don't lose your place in the text.

Furthermore, when the end of file is reached an additional click wraps around to the beginning again.

AW WP is not only WYSIWYG but it is so in real time - all reformatting takes place automatically as you type. There is a veritable plethora of presets but they are all initialised to very sensible defaults and in most cases need no tweaking.

In addition to perennial favourites such as footers, headers and margins, there are a few unusual but very handy features.

For example, Atari were always well known for being very sensitive to making their products as international as possible (witness local language TOS version and keyboards).

This user friendliness continues in AW by being able to chose up to nine different date formats!

GRAPHICS TOO

Naturally, a program as comprehensive as this could not be complete without macros. Space does not permit us getting into details but suffice to say that there are both font and page macros. Page formats can be saved and loaded at will.

Its support of graphics makes AW WP more than just a wordprocessor. In addition to graphic drawing tools complete pictures can be imported and manipulated.

The formats supported at the moment are GEM and IMG. Once imported, a picture can be stretched and its ratio adjusted.

However, the picture is not displayed, instead, it's merely outlined with a crossed rectangle. It would have been helpful to at least show the picture name in this rectangle.

A picture may tell a thousand words, but words are more important in a wordprocessor. And so we come to the spelling

Edit	Window	Search	Format	Style
Undo (Undo)	Full/Small Window	Find... AF	Line Spacing...	Macro...
Cut ^X	Preferences...	Replace... AR	Left	Normal AL
Copy ^C	Activate Document...	Go to page... AG	Right	Bold AB
Paste ^V	Hide Ruler	Thesaurus... AJ	Centered	Italic AI
Delete (Del)	Hide Tools	Check Spelling... AJ	Justified	Underline AU
Select All ^A	Select Picture ^Z		Copy Format... AK	Outline AE
Draw Pattern... AD	Hide Picture...		Paste Format... AV	Superscript
Hide Picture...	Import Picture...		Delete Format...	Subscript
Correct Aspect Ratio	Begin Merge...		Title Page	Fonts... AH
	Show Data		Set Page #...	

checker. AW does not only have a spelling checker but a thesaurus as well. The thesaurus contains a number of synonyms and word definitions making it a lot of fun just to browse through.

At the moment they both have a distinct American accent. Hopefully, AW will learn to spell properly by the time it crosses the Atlantic.

Checking is very fast and extremely easy to do. This is further enhanced by suggestions of phonetically similar alternatives.

Naturally, should a word be missing from the main dictionary the user can build a personal dictionary extension of their own.

When it comes to wordprocessing the proof of the pudding is in the printing (to mix a few metaphors...). And this is where the WP section of AW benefits, without a doubt, much more from SpeedoGDOS than the other two applications.

Speedo brings multiple scalable outline fonts from the vast number commercially available at BitStream libraries and takes over and removes the whole process of printing from the application.

This means that support for new printers is simply a matter of installing a new Speedo printer driver. No more endless tweaking of printer files as was the case in the past.

But AW WP does not only print documents, it also has a very comprehensive label printing module. So whether it's a Christmas list or a customer list AW WP caters to both.

In conclusion, the WP module alone is probably worth the price of the whole AW package.

The word processor is most comprehensive application in Atari Works as this list of all options clearly shows

Conclusion

So how does Atari Works stack up? The first question is: Against what? There are no comparable packages that are so comprehensive.

Individually, there exist stand alone programs considerably more powerful than any of the three Atari Works' applications, but that would be an unfair comparison.

But even then AW can hold its own. Besides, even though those other applications may do everything under the sun they do so at a price, both in terms of hard cash and computer resources.

However, taking into account the well known proverb that 90 per cent of users only employ 10 per cent of available features makes AW even more attractive.

There are also other aspects which work to Atari Works' favour in the long run.

First, it's an integrated package which makes data interchange between main applications fairly painless even for a casual home user.

Second, Atari Works previewed here is just the beginning as further development continues. And third, the price is very attractive.

In the US, Atari Works together with SpeedoGDOS and 14 BitStream fonts is supplied free to Falcon buyers while other ST owners can buy the complete package for \$129.

Atari officials are on the record saying that AW is being upgraded as time goes on.

New features such as voice annotation and telecommunications support are being added.

This will also include the ability to send and receive faxes as well as support the Falcon's DSP port mode. A wide range of import/export file types is also on the horizon.

Atari Works is ideal for a home and small business use. It provides everything such a user would require and more. Atari promises to bring the package to Britain - let's just hope it's sooner rather than later and at the right price!

For example, a series of spreadsheet cells or a number of database records can simply be cut out and then dropped into a word processor document.

The program was originally called "Sutra" reflecting the Indian origin of the author, Pradip K. Patra. Atari was so impressed they got the author over to Sausalito. They also changed the name of the program to "Knowledge" to reflect the all-encompassing outdoor aspects of the package. In the end, even that name proved too exotic for Atari as they finally opted for a rather mundane and unimpressive "Atari Works" probably because of similar names - and other mundane and unimpressive - MS-Works. But as Billy Shaker said "a name by any other name..."

Atari Works (AW) runs on Atari ST/Falcon computers of all ages and resolutions as long as there is at least 1 MB of memory. However, a hard disk and at least 2 MB of memory are strongly recommended. Several spreadsheets, data bases and word processor documents can be opened simultaneously as the more memory there is the better. In terms of resolution AW runs in any mode that supports at least 80 columns. Naturally, AW is fully Multitrac.

The Atari Works word processor is one of the better WPs in its own right and can hold its own against many stand-alone word processors

We covered the initial steps in document design last month – choosing the overall layout and the typefaces to be used. Now we'll examine the techniques of getting text and graphics on to the page – not the step by step processes described in the program manuals, but the theory behind it and the ways you can improve the appearance of your documents.

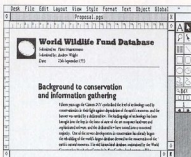
Desktop publishing is about documents, and documents are about text. Never forget that relationship, once you start producing documents where the text is subordinate to the graphics and layout devices, you're in big trouble.

It's obvious when you consider newsletters and reports – the reader usually wants to read the document as quickly as possible – but not so obvious when you think of posters and leaflets.

Be warned though, even if you're designing a poster with one word on it, that word must be legible and it must put the message across with no room for ambiguity.

Most text (or copy as it is known) is created in a wordprocessor and then imported into the DTP program. The heavyweight DTP packages like Calamus and Didot let you create copy inside the program itself via built-in text editors, but I wouldn't recommend it.

The copy should be created as a separate entity away from the distractions of the DTP program, otherwise the temptation is to keep laying it out as you write. This is something that just



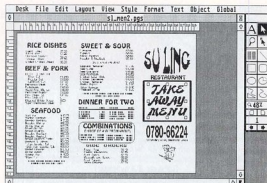
A standard but stylish design for a proposal or report

invites an unwanted crash, as there's no point in pretending that the top DTP packages are anything but unstable. Spelling checkers are invariably better in word processors too.

When you're writing the text in a wordprocessor, remember not to bother with indents and the like. Insert plenty of headings and subheadings – they help you to keep track of the copy when it's being laid out and you can remove them quickly and easily if necessary.

If the copy has been submitted by someone else, make sure you edit it and

In the second part of our DTP tutorial, Andrew Wright looks at ways of using text and graphics



Some documents appear to leave little flexibility in terms of structure but it's always there

convert it to the format your DTP program needs. PageStream and Timeworks are good at importing text in different formats, but Calamus and Didot aren't quite so flexible, requiring copy to be saved as ASCII text.

SIZING IT UP

Once you've imported your copy, the hardest work is still to come. You might have a good idea as to which typeface you want for your body text, but what about the point size and leading? It's all a question of balance guided by a few simple rules.

The first thing to do when the text is on the page is to set the point size and get an overall feel for the body text. Most business documents range from 10 to 12 points for body text, while a newsletter or leaflet could go as low as 8 or 9 points (this article is set in 8 point body text with 9.5 point leading).

Polishing up yo

Designer tips to help improve your pages

Colouring paper

If you want to produce an eye-catching leaflet, why not try printing or photocopying on coloured paper? It may cost a little more, but provided you avoid deep colours and don't use tinted boxes or text, it can be cost-effective way of doing something different.

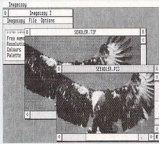
Standing proud

Use an introductory paragraph or standfirst for the main story to demonstrate its importance. Spread it across two columns and set it in a slightly larger point size than the body text, or in a smaller point size using the same typeface as the headline above.

Shades of grey

Avoid grey tints if you can. If you

do use them, consider the output device and method of reproduction. When printed on a 2540 dpi typesetter, a 10 per cent tint virtually disappears while a photocopied per cent tint can look like a smeared mess.



Imagecopy 2 is an excellent tool for desktop publishers – the Degas version is around a tenth of the size of the IMG file, saving on memory and screen redraws

The big picture

If you're using large images, such as photographs, use low resolution versions for layout. Create them by displaying the full image on screen and then snapshotting it as a Degas or IMG file which can then be imported as normal. When the layout is completed, import the full image.

Reversing out

Use reversed text for contrast. White text on a black background is highly effective make sure there are no fine serifs (they will disappear when copying or platemaking). A bold sans serif or slab serif face works best.

Cut to size

If you are aiming for an A5 or

smaller publication, print out your master as an A4 sheet and then let your litho printer or photocopyer reduce it to the required size – this can effectively double your artwork resolution!

One by one

Save each separate section or story on disk as a separate file before you import into the DTP program. This makes moving, cutting and pasting copy a lot easier at the layout stage.

Crossed heads

Vary the headlines and subheadings in tabloid style newsletters, but keep the variation subtle. Try italic/oblique, bold and perhaps condensed or expanded versions of the same typeface to add interest and differentiate stories.

Other factors come into it too – if you're using PostScript fonts in Didot or PageStream and outputting to a PostScript laser or using CompoScript, you will find that 8 or 9 point text reproduces very well, but if you're printing to a non-PostScript printer, anything under 10 points can look quite lumpy, even on a laser or inkjet.

You should be aiming for between 50 and 65 characters per line, including spaces, but the point size that reflects this will depend on the number and hence the width of the columns, the nature of the chosen typeface and the type of document. If you have a single

column and more than 65 characters (or 12 words) a line, consider increasing the point size. Long lines make the reader work hard tracking across the page.

If you have three columns or more, it will be hard to achieve 65 characters per line without dropping the type size to illegible proportions, but make sure you have the practical minimum, which is around 40 characters – around five or six average length words per line.

Columns with fewer characters or words than this make reading very difficult – the eye is constantly having to skip backwards and forwards. If you

are heading for this kind of line length, make sure your text is ranged left (ragged right) rather than justified, as the latter will create too much extra white space between words. While we're on the subject, never use justified text for letters, faxes and memos – they tend to be made up of short paragraphs which don't lend themselves to a neat right hand edge.

Remember that there are often other parameters you can adjust too, including hyphenation, minimum word spacing and tracking. Tracking (character spacing in PageStream) and word spacing can often be tightened considerably as the default values in many programs err on the side of caution.

Whether or not you use hyphenation is a matter of personal preference. I find it ugly but you should be aware that it can help even out ragged right-hand margins and reduce the amount of excess space within justified columns. If in doubt, switch it off!

Primary heading

Secondary heading

The body text is set in 12 point Goudy Old Style with 3 extra point of leading. The body text is set in 12 point Goudy Old Style with 3 extra point of leading. The body text is set in 12 point Goudy Old Style with 3 extra point of leading.

Subheading

The body text is set in 12 point Goudy Old Style with 3 extra point of leading. The body text is set in 12 point Goudy Old Style with 3 extra point of leading. The body text is set in 12 point Goudy Old Style with 3 extra point of leading.

A standard scheme for subdividing text-heavy documents. The main heading is in 24 point Rockwell Extra Bold, the second in 17 point Helvetica Black and the subheading in 14 point Helvetica Bold.

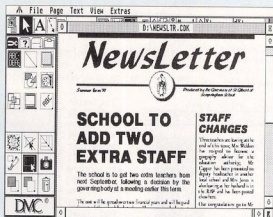
LEADING THE WAY

Having decided on the point size of the body text, the spacing between the lines (leading) is next for attention, and again there are some general rules.

The norm for 11 or 12 point body text is 2 points of leading but this can vary up or down by at least a point depending on the other inter-related factors. Long lines of text need more



ur purple prose



This newsletter shows regular and italic versions of the same typeface used for headings plus a stand-first paragraph for the main story

Time for a rewrite

If a headline, a caption or a stand-first looks boring, don't hesitate – rewrite it! Don't worry about who wrote it, you are now the editor and it's your prerogative to change words as you see fit. If they're boring, it serves 'em right!

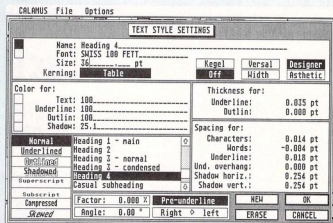
Do it with styles

Paragraph styles are an essential part of DTP and their use should be second nature. All the main ST programs support paragraph styling – PageStream's implementation is fairly basic but that provided in Calamus S/SL is excellent

Eyes front

If you include photographs of people, ensure they always face into the page. If the background is cluttered or very dark, it will detract from the face itself, so use

an image editing program like Retouche or Touchup to remove as much as necessary. If you can add a plain or gradient filled background instead, so much the better.



Setting up text styles in Calamus SL

Working with graphics

In the restricted world of ST desktop publishing, graphics play a subordinate role to text and typography, mainly because the ST lacks hardware support for greyscale and colour "real-life" images (though things should improve with the Falcon) and the average ST owner's budget results in most work being photocopied or perhaps commercially printed in a single colour.

This doesn't mean you can't do as good a job as any graphic designer, given the skill and the training, but the vast majority of users will simply be utilising ready-made clip art or scanning and importing monochrome images.

At the other end of the spectrum are the full colour scanners, image editing software like Retouche Professional and the complexities of halftone screening using programs like Didot.

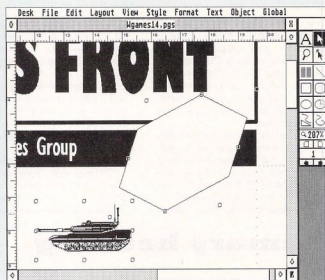
It's a big step up, though, and it's perfectly possible to enhance your work, without spending hundreds on hardware, using a few simple techniques and a thirst for new ideas. Let every magazine you pick up inspire you with a new way to place a rule on the page or a better way of boxing out text.

Once you start using 300dpi printers and above, the difference between vector and bitmap graphics becomes all too obvious, particularly when they're resized, so you should plan to create simple logos and graphics as vector objects. With autotracers like Convector you can get the best of both worlds and convert oodles of ready-drawn clip art into a format that suits you.

Once your graphic is on the page, there are two things that need careful consideration – the position on the page and the way it interacts with other objects like text, something known as wrap or runaround.

Position is important – the worst layout for using graphics is the two column one as the graphic must go at the top or bottom so as not to detach some of the text. Single column documents pose problems too, as text invariably has to flow around the graphic.

In this situation it's important not to let the text end up in a narrow column – remember the need for five words or so per line. Text



Most graphics can be created inside DTP programs using integral tools – this hexagon was drawn and then rotated and skewed entirely within PageStream

runaround rarely works well with justified columns, another reason for not using it unless you really have to.

You can use text runaround to good effect for something entirely different, creating irregular columns. In PageStream, you can create simple vector graphic shapes such as triangles and squares and apply text runaround to them.

If you subsequently make these graphics invisible by giving them the appropriate line and fill attributes, they won't print at all. You can then make text columns flow in wavy lines or perhaps diagonally across the page.

▶ leading to stop the reader wandering from line to line. The space between the lines should also be wider than that between words on the same line, so that the reader's eye is channelled along the line rather than distracted by words above or below it.

Typefaces with a large x height (where the height of the lower case letters like "x" is close to the height of those with ascenders like "d") need more leading as succeeding lines will appear closer together. Examples include Times and Bookman, but typefaces like Perpetua and some versions of Garamond, with a small x height, can often stand less leading.

Inter-paragraph spacing is another difficult area and one that is inexplicably ignored by PageStream. Most programs let you specify the spacing, but in order to ensure that parallel columns balance at the base, it is best to leave the spacing at a single line or not use it at all. Most attractive is a half line space between paragraphs, but it does bring problems when aligning columns.

If you do without paragraph spacing, indent the first line of each paragraph instead by the same amount as the type size unless the columns are particularly narrow – in other words indent a sixth of a paragraph by 12 points, a sixth of an inch or about 4 to 5 mm. The first paragraph in a section, incidentally, need not be indented if it has a title or subheading above it.

HEADING THEM OFF

Once you've got the typography right, it's time to think about the message again. All documents need structure if they're to succeed, but the precise structure will depend on the aims of the document.

For example, a newsletter needs to be divided into several distinct stories, each with an attractive headline or graphic. Few people sit down and read a newsletter in one go – the commonest way is to dip in and browse.

Not only do the headlines have to be attractive and readable, they also have to invite further examination. Look at the difference between "BOY CATCHES RECORD 60LB PIKE" and "PIKE

RECORD SMASHED!". If the latter was further enhanced with a secondary headline or standfirst such as "14-YEAR-OLD NETS 60LB MONSTER", you can see how the story becomes more appealing. Always look to improve on headlines and subheadings.

Other documents need a more rigid structure. Proposals and company reports will probably be read once quickly and then referred to again and again over a period. Good DTP practice can help here by sticking to a set of structured headings and sub-headings.

A good rule of thumb (not laid down in tablets of stone by any means) is that the main heading in a report or similar

The advert below was created using PageStream



The text in the centre is actually a single text column that spans almost the width of the page. However, it is bounded by two "invisible" vector graphics that force the text to run in what appears to be a single irregular column. Note the dark corner which "bleeds" onto the page

document should be twice the point size of the body text, with secondary headings somewhere in between and a third level of subheading just a little bigger than the body text.

Sub-divide text heavy documents generously — more than two or three paragraphs without a heading and it will start to become very uninviting. Remember that a heading that divides two sections of body text should be closer to the following text, to which it refers, than to the text immediately above it.

If you have a series of brief points to make, consider using bullets. These are small symbols, similar to dingbats, that act as a focus for the eye. For example, three solid, bold bullet points in quick succession tell the reader very quickly that there are three things to note without having to resort to numbering.

Most fonts have some kind of bullet mark in their own somewhere (usually a solid round dot) but if you need more, typefaces like Zapf Dingbats and Monotype Sorts are composed wholly of such symbols.

● Note that if bullet points are more than one line in length, subsequent lines should be indented to the same depth as the start of the first word of the first line.

Another way of improving a document is to use features like headers and footers. These can be used not only to show page numbering, but to provide a feeling of consistency to the whole document.

Master pages are useful here — a rule across the base of each page of a report, along with footer including page number, date and the title in a relatively small point size, gives your work a more professional feel.

A table of contents is a good idea if the document is a dozen pages or more in length, while indices are equally useful for longer ones, especially if semi-automated by the software as in Calamus S/SL.

Even a four-page newsletter will benefit from a small contents box on the front, but to serve as an appetiser rather than help navigate the document.

Your final checklist

Spelling

Check the spelling of a story before it's imported and just before final proof — you may have added a word or two and inadvertently misspelled them. Remember to check things like captions and footnotes too. If you have to follow a house style, make sure you know what it is.

Matching up

Check that the headlines and crossheads match the individual stories and that the captions match the pictures or diagrams.

Page numbering

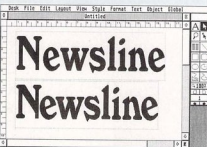
If the document is a long one it should have each page numbered (except perhaps the first). Check that the numbering is correct.

Index and contents

Long documents may also need an index or table of contents or both. If so, check that the stories, headings and subheadings match the page numbers listed in the contents.

Kerning

Remember to closely inspect headlines and titles for unwelcome space between individual characters. This is particularly vital in PD or low quality fonts. Kern all the pairs that need it.



The difference kerning makes isn't always startling but it does add style

Clashing descenders

If headlines or subheadings are in lower case and the leading is tight, the possibility exists that descenders and ascenders might clash. Look carefully and increase the leading if they do



The descending "g" and ascending "l" are now touching each other, a situation brought about by decreasing the leading too much

Widows and orphans

These are single lines left on their own at the end or beginning of a column. Check you don't have any — if you do, take steps to get rid of them.

Aligned columns

Make sure that the last lines of each parallel column line up across the page. If not, adjust one or more of them until they do. Nothing looks more unprofessional than unaligned columns.



Always make sure the bases of parallel columns are aligned

Enough information

Finally, put yourself in the reader's shoes. Does the document tell you all you need to know? Newsletters should have a date, volume or issue number and title. Many publications, particularly those used in sales or marketing, should have a contact name and telephone number at the very least. It would be a shame if you hooked a prospective customer but failed to tell them what to do next!

Get out the magnifying glass!

Go over the final proof with a fine tooth comb. To be brutally honest, most jobs I do go through the door with an imperfection somewhere. Sometimes it's just something I could have done better, while other times it's a glaring disaster waiting to be spotted.

Are all the rules and lines lined up and touching where they should be? Do any text objects or graphics partially mask other features? Do all the stories end as they should — you'd be surprised at how often the last word disappears! Time spent at this stage is time well spent indeed.

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- GAM-22 AstroDodge/Submit + 10 more
- GAM-28 Question of Snooker/Tragger + 1
- GAM-34 X-wind/Bugs/Warrior + 2 more
- GAM-36 Klaxtris/Entombed/Mr. Dace + 2
- GAM-38 Cases of Rigel/Froggy/Harris
- GAM-45 Die Alien Bites (very addictive)
- GAM-51 Bartlelog (with speech) + 2 more
- GAM-59 Dungeons/Gravty/Maze + 3 more
- GAM-60 Armour/Hunted/Quital + 3
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15 ast'd utilz inc. Goodies/Fonix

12 ast'd utilz inc. Codefind/Arc Inc. Archive prog. Assembler to GFA STD code finder, Format prog. HD-Utility, Data Salvage & more

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- GRA-14 Excellent Art & Animation package that started life as a commercial art program costing £89.95!
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- GRA-32 Colourscape This is another program that started life as a commercial package now released as Shareware by Jeff Miller. Create your own colour & light show. Turn up the music, cut back and be amazed!
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- MIDI-20 SYS-EX Kit (2 DISK SET £2.75) System Exclusive Kit. If you've heard options YAMAHA's Sys-Ex then this is for you, two disks chock full of MIDI & SYSTEM EXCLUSIVE progs, utilities, accessories & tips
- MIDI-19 Alchemie Jnr (with guessticker) Recording Studio Utilities Keep track of your tracks with these exceptionally good Studio Utilities
- MIDI-12 Henry Choc Sequencer Name That Tune (111 midi files)
- MIDI-04 PSS special (just for PSS boards) If you own of YAMAHA'S PSS series keyboards YOU NEED THIS DISK.....
- MIDI-03 Create an album from 42 SNG files
- MIDI-04 42 SNG files with CZ101 player
- MIDI-05 to 08 Each disk has 40 SNG files
- MIDI-10 CZ & DX editors & librarians
- MIDI-11 Picture show with 100+ songs
- MIDI-14 Name That Tune + 111 midi files
- MIDI-16 Sound Shifter - Yamaha PSS editor
- MIDI-18 DX & FB01 editor & librarians
- MIDI-21 Feeling Partner & EZ Track demo's Working Demos of these two great commercial MIDI packages
- MIDI-29 Super Sequencer sequencer + utils
- MIDI-22 32 Tracker Sequencer + utils

AUTHORS

of PD., Shareware & Licenceware Here at Warpzone PDL we're always looking for new and innovative titles for inclusion in our library, if you have written something you feel is of good standard then please call us, we will be happy to hear from you

COMMS

- COM-02 Galactic Express - Get on line game You'll need two ST's & a mod. modem cable
- COM-03 System 4.0 (best PD comms prog) Still the best PD TERM program!
- COM-16 Uniform (Excellent terminal prog)
- COM-07 Freeze Dried Terminal
- COM-08 View DL files when off line +4
- COM-05 D-Term with Z-modem module
- COM-06 Mo-Term Elite (for buffers)

WARPZONE PDL W Z

53 Ropewalk, River St.
St. Judes, Bristol BS2 9EG
Telephone/Fax: 0272 553758

Other than admiration for Jeff Minter – the guy who should have been put in charge of CD games and their development – my image of public domain and shareware has always been of a bunch of enthusiasts who write into the wee hours of the morning producing software that really didn't offer much compared to commercial titles. I know now how wrong I was.

Looking through this month's line up, I am struck by the variety and excellence of the products on offer. So please forgive me, I have seen the light and am now reborn...

Power Cut

Programmed by: Paul Abraitis of Powerlist Productions
Available From: LAPD Disk No L51

Power Cut is an action-packed simulation for all electricians... well no actually, it's really the latest game from the very macho named Powerlist Productions, a licenseware company based in Sheffield.

The title's real scenario concerns a power complex built inside the third moon of the planet Shara which provides unlimited energy for all the people who happily live beneath it.

How unfortunate then that the very same moon should become thermally unstable and rather dangerous to any living or sphere-shaped object within approximately 100 million miles of it.

Oh dear, I guess that's what happens when you start messing round with Mother Nature. She feels neglected and gives humankind a good slap across the face by threatening them with extinction.

Never mind, there's a member of this particular race who has decided to save everybody. That's you, by the way.

The task is to enter the power complex in your space hover walker...err... thing and take out all the 25 power bases which make up the plant and thus cause a huge power cut before everything blows up.

The game is played in the style of the old Spectrum classics Jetpac and Thrusta – not a bad thing because they were both excellent –



Here it is, the source of all the problems... the plug

PUBLIC

Adam Phillips takes his first stroll into the world of cheap and cheerful programs

by walking and flying your jetpacked craft round the complex and destroying the bases with forward firing missiles and bombs dropped from the ship's undercarriage.

As any self righteous hero or heroine would expect, you are not alone. The whole place is littered with defence systems which launch projectiles at the player whenever he's near.

These can be destroyed, but the emphasis is definitely on conserving ammunition and other pick up supplies (extra lives, fuel, bombs and shields) for the mission in hand.

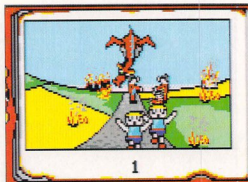
The best strategy is to avoid the enemy by using skill and the map, which for all television owners will probably be a pain to use because all the installations are marked by single pixels with only different colours to identify them.

When I started playing Power Cut it seemed a little old and dated but once you're stuck into it with time running out and the shields about to give (along with everything else), the software picks up quite a pace.

The graphics both in the intro and in game are of a good standard if a little dull in places. It's very reminiscent of the Bitmap Bros but without the trouser ripping ego.

The package has a commercial feel to it and with more variety and differing power ups this would make a good budget release.

As it stands, the title offers great value for money and a challenge that'll keep you going longer than the most of the full motion video, raytraced, CD based games with no gameplay which are becoming increasingly popular these days.



Magic Storybook

Programmed by: Jayne and Richard Dunn
Available from: 16/32 Disk No Educ 033

Parents must have it easy these days; there's no need to take the kids on day trips, there are no more complaints from the back of the car on long journeys and there's no point in feeding them either.

Why? Because they've all got their heads buried in screens playing consoles, hand-helds and computers.

Now you don't even have to bother to tell the children a bedtime story. Just load in The Magic Storybook and it'll tell the tale for you, and what's even better, they'll learn a thing or two as well.

The program is a kiddies, and let's face it because we're all kids at heart really, adult entertainment and educational package designed to be relatively easy to use.

The software is presented with a book in the top half of the picture with the left side for the animated illustrations and the right for the actual story.

In the bottom half is the work area where the definable elements of the software are housed. These include sound, graphics and text editors. All the user does to alter the supplied stories is click on the feature they want to change.

When the story icon is pressed a list of key words from the pages text appears. The number presented depends on the age group selected at the beginning 5+ or 8+.

Kids can play around with them and construct their own sentences by simply clicking on the desired word. If wanted, they can

sector

Long ago and far away there was a kingdom. People in this kingdom had become very frightened. Each day a dragon flew from the mountains and breathed fire everywhere.



Banners and posters can be constructed very quickly once you've got over Printing Press' language barrier

limited version off disk and print it up, but its not as comprehensive.

The package is relatively simple to use at first, but depending on how deep the user goes into the many functions, the more complex it becomes. As a professional piece of software which fell victim to the recession, this title is tremendous value, and once mastered a great deal of satisfaction can be drawn from it.

Oh yes and by the way, apparently Rolf Harris likes it a lot as well so it must be good. "Two little boys, la, la, la-la-...."

The Printing Press

Programmed by: Bernhard Artz
Available from: Emerald City PD Disk No ST 21

Freihand, kreis, linien, rechtek... a sample of the user friendly language that this hi-res mono poster and banner design program uses from the country sons Berlin Wall, Germany.

As you've probably guessed, nearly the entire title is in German. Why review it? Because it's actually not that difficult to decipher if enough time is put in.

The software appears to be split into three

play ↑ ↓ back <back> view

When animated, the dragon spews fire and people run in all directions

rewrite the entire story of Goldilocks after deciding that it's not as fun as big Arnie in Terminator 2.

Choosing Scene selects all the graphics, animated or otherwise, on a particular page (apart from the background). These include a multitude of different sprites from people and bears to drifting clouds and dragons.

Finally, the sound itself can be changed. A list of sound effects are displayed and the user can choose as many or as few as they like. The FX range from gull calls to snoring and screaming. A bizarre mix can be created to add to the atmosphere of the tale.

Once the children have watched the three provided stories (The Angry Dragon, Christmas Story and Goldilocks) and have become bored with them, the Magic Storybook editor can be used to draw your own graphics, backgrounds and animation.

A simple word processor is included to write your own text as well. This all adds upto the ability to create full blown stories all from the imagination of your children. Can't be a bad thing.

I wasn't able to use every feature of the editor due to the lack of instructions, it's an extra tenner for a 20,000 word manual - a wise investment. You can download a

Take a look at all those lovely icons



Crack Art

Programmed by: Detlef Roettger and Jan Borchers
Available from: Tumbleweave PDL Disk No AAG 38

Once in a while a piece of shareware shows the professionals what can be achieved without having to charge the punter huge amounts of money for the privilege.

Crack Art is one such title, the second German art package to be reviewed this month. The whole thing literally reeks of quality from the word go. On loading up the user is presented with a mass of options neatly laid out in a series of highly detailed, extremely attractive icons.

Among the long list of functions are draw, rays, poly, frame, rotate, curl, bulge, tube, animation, scanner and sprite creation.

As well as this, there is an FX screen where the user is able to manipulate the image with the 40 or so features on offer.

Unfortunately I had no manual at my disposal to help explain the more finer aspects of the sprite and animation routines but the basics are worth the asking price alone.

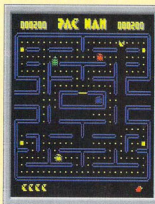
If boredom ever sets in while pottering around on the program the authors have kindly supplied four games including playable versions of Pacman and Tetris.

I do have a couple of negative points. The airbrush size selection is a little difficult to manipulate to a small size because most of the time it simply doesn't want to do it. It's a matter of patience to get the desired dimensions.

On many art packages, you usually find that the options and drawing sheet are displayed together on screen. In Crack Art's case, one has to flick between the two, which is a bit of a drag.

Finally, the software isn't as accessible as other titles on the market whose basic functions can be picked up without reading any of the literature. If someone could possibly tell me how to select the colour palette, I would much appreciate it!

Other than these niggles, Crack Art appears to be a product of the highest quality and well worth checking out if you're a graphic artist who doesn't want to carve a large slice out your wallet.



Pacman... still playable after all these years

PUBLIC sector

main sections – an arts package and the poster and banner design worktops. These are all shown on the menu screen which includes a plethora of other options such as Drucker setup –that's the printer setup – Diskfunktionen, disk attributes and options. You see, it's not that difficult to understand. Briefumschlag.... well, may be it is a little.

Clicking on Art Studio brings up a reasonably powerful drawing set which is used to create your own graphics. A menu bar along the top of the screen has all the usual functions one would expect to find.

The main downside is that all the options are in German but do not fear, all becomes clear with experimentation.

The program runs quite smoothly. It would have been nice to be able to adjust the size of tools such as the airbrush and also have a marker to establish exactly where the tool is when on screen.

I had no idea where I was going to spray, so after finishing the job, a major clean up job followed rubbing out all the little dark smudges left on the screen after trying to find my target.

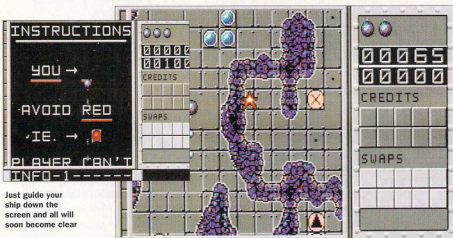
If you're not blessed at or bothered with creating good pictures then Art Studio has a large library full of useful little symbols which include electricity warnings and restaurant signs to Madonna and sporting logos such as football, golf and tennis. Nearly all of the pre-drawn graphics are of a very high standard.

The text option has varying letter sizes with the likes of bold, underline and so on but only boasts one font, Times. It is possible to use the Atari's typeface, but it has always looked pretty horrible, so that's not recommended.

Good sign is that there are further spaces for more font installations so with any luck, this problem will be resolved soon. Next up are the poster and banner designers. Both have pretty much the same operating systems with the difference being that one is a horizontal strip and the other an A4 size vertical.

Each have similar features to Art Studio which can be used to build up the design. Again, a selection of ready done images can be used for either frames, backgrounds or symbols.

I've been told that there are very few titles of this nature on the PD market but The Printing Press fills this gap admirably. Perhaps we'll see a colour version in the future.



Alternate reality in all its glory... looks like South Central

Wormhole

Programmed by: The Mobius Strip
Available from: Merlin PD Disk No MPD1459

I thought after the groundbreaking watergarden and knitting programs of last month that Wormhole might be some kind of gardening irrigation title which explains the usefulness of the little slimy creatures that live in our gardens and help the grass grow.

Imagine my disappointment when Wormhole actually turned out to be an alternate reality... well, maybe it does have something to do with grass.

Apparently, the player's spaceship has been sucked through a huge "wormhole" in the space time continuum and has plopped out into a strange, new world full of antagonistic aliens bent on your destruction.

The action centres round what appears to be a series of floating platforms in space. The game is viewed in the Gauntlet style and begins on the first of the aforementioned lumps of concrete. The task is to get off it and travel by the teleport systems to the other platforms to try and find the ever elusive way out. On the way, creatures are

Where to get 'em

Emerald City

PO Box 28
Southampton, SO9 7HS

Tumblevane PD Library

6 West Road
Emsworth Hampshire, PO10 7JT

16/32 PDL

173 High Street, Strood
Kent, ME2 2DH

Merlin PD

11 Grange Close, Minchinhampton Stroud,
Glos. GL6 9DE

LAPD

80 Lee Lane, Langley Heaton
Derbyshire, DE7 7HN

destroyed, credits are collected to buy different colour guns to shoot different coloured bits of wall [slightly more interesting power ups would've been better] and generally avoid having your bun destroyed.

The whole package sports quite a professional look and the gameplay is relatively addictive if a little unremarkable.

The feature that impressed me the most was the tutorial which is built into the software. By having instructions mixed with practical demonstrations, it's possible to practice tackling the problems that will be encountered while playing.

This is a great idea and has been implemented really well. Companies such as Microprose could take a leaf out of Mobius' book and do the same because of the huge amount of instructions that the player has to wade through before even approaching the keyboard for take-off.

If you do finish the game before too long, there's no need to worry because Wormhole 2 is well on the way, it's even been advertised in the game demo.

● I'll be back next issue with more trips into the Public Domain. To all the nice people who send in the software, keep it rolling in – with full instructions where possible; it's much appreciated.

It's A Mug's Game

Programmed by: Chris James
Available From: LAPD Disk No: G 314

Let there be no mistake, It's A Mug's Game is not trying to be a boxing simulator. Gone are the complex joystick movements of Streetfighter 2 and other beat 'em ups – this is simply a case of holding the fire button down and smashing the opponent to the floor.

The front end of the program contains a line up of five different boxers, ranging from brick wall physique to the little weedy guy out of the polishing adverts.

After this, it's time to go into the ring. The action is viewed from above and with the only restriction being the ref who steps in from time to time to split the loving couple up, just climb in, go up to the other player and hit him as much as possible.

There's little strategy and it's hardly the most addictive title in the world but it's a bit of a laugh in small doses, especially with two players.



Just get in there and beat the hell outta him...

More memory

I have only had my 520STE for about a year now and I mostly play games on it. What I want to know is if I upgrade my memory to say 3 or 4Mb, will games be greatly improved if they have more memory to use, such as better sound, graphics and speed?

R Morgan, Cheshire

First of all, you cannot upgrade your machine to 3Mb. The only possible configurations are 0.5, 1, 2 and 4Mb. However, Marpet Developments are currently working on a upgrade board for STEs that will allow further configurations of 6 or 12Mb!

As for improvements with extra memory, a game has to specifically be written to take advantage of any extra RAM it finds.

Such improvements usually come in the form of better sound effects and less disk swapping, resulting in an overall increase in gameplay quality.

Multi-computer games

On last November's issue CoverDisk you included a brilliant multi-computer game called Cold Revenge. Although the game graphics were not breathtaking, my friends and I were completely hooked on it because we could compete with each other rather than some limited computer-controlled opponent. It really did give the game a new dimension.

Are there any plans to include more such games on future CoverDisks and if so, when? Keep up the good work on an excellent and informative magazine.

R Crossley, Middlesex

I can understand your enthusiasm for games which have multi-computer features. There's nothing more exciting in a game than knowing the opponent racing towards you hell bent on your destruction is a real live being with infinitely more intelligence than a computer.

My view of the ideal gaming experience is where home computers or consoles can be

linked, via telephone lines or cable TV lines, to a central computer, which controls a complex game whereby hundreds of callers from all over the country, or even all over the world, can compete against each other. It's well within the capability of current computer and communications technology.

With regards to future Atari ST User CoverDisks including more multi-computer games, well there don't seem to be many around, but if anyone out there knows of, or wants to write such a game for the CoverDisk, send it in or get in touch to discuss it.

You may like to know that the best multi-computer game I have played yet, *Midi Maze II*, appeared on the February issue and allows up to 16 players to link STs via the Midi ports. So if you didn't get that particular issue, call our back issues hotline on 051-357 1275 for information on back issues and availability. Stocks are limited, so be quick.

Falcon cache

How can I turn the Falcon's cache on and off from the desktop? I know MultiTOS (which I have) has a menu entry for this, but having MultiTOS resident eats up my memory. Will I have to resort to editing the NEWDESK.INF file to do this?

S McKenzie, Halifax

Atari's extensible control panel Xcontrol has

reached v1.31 and you will be pleased to know that the general CPX has had a cache on/off option added.

Also available is the ability to edit the environmental variables that MultiTOS uses. It's useful for such things as telling MultiTOS to look for accessories in a particular folder, rather than have the root directory cluttered with various active and inactive accessories. Nice one, Atari.

More about Falcon

When the fact broke that a DSP was to be included in the architecture of the Falcon, suggestions of a software modem abounded. Are there any plans for such a product and how much will it cost?

J Stanstead, Sheffield

Atari are apparently working very closely with a third party on a software modem package. However, there are said to be difficulties in implementation, particularly at the price/performance point which Atari want it to be done at. Atari are said to be confident that it will appear but will not give specific details about it, or its eventual time of release.

Other questions arise about such a software modem such as the requirements for such a device to be officially approved by BT for connection to the telephone lines.

Hopefully, such approval will come and will

technical letters • problems • suggestions

ADVICE

Different types

I have recently bought an Atari 1040STE and am having problems with making a backup copy of 1st Word Plus. The computer says "The source disk is not the same type as the destination disk".

At first I thought maybe my blank disks were at fault, so I returned them to my supplier and told him about my problem. He said it was due to the copy program in the computer and that I would need to buy an extra copying disk.

Please can you give me more information on this problem and where I can get a copy disk if needed?

Miss C Hector, Cambridge

The problem you are having is due to the ST's built-in copying program which is activated by dragging the disk A icon on to the disk B icon. Unfortunately, this routine is not very intelligent or flexible.

When using this built-in routine, the disk you are copying to has to be formatted exactly the same as the one you are copying from. For example, if the 1st Word Plus disk is single sided, you will need to format your destination disk to single sided.

However, fret not, there is a simple way around it. To copy your 1st Word Plus or any other disk follow the steps below. I am assuming you have a double sided internal floppy drive and no external drives attached:

1. Format a disk choosing double sided from the ST's formatting menu
2. Double click on the drive B icon

3. You will be asked to insert disk B into drive A. Disk B is the disk you want to copy to and disk A is the 1st Word Plus disk. So insert the freshly formatted disk you wish to copy to and click on OK. A window should open up on the desktop

4. Using the mouse, drag the disk A icon into the open window on the desktop

5. You will be asked to insert disk A into drive B. Disk A is the 1st Word Plus disk so insert this and click on OK.

6. Follow the instructions on-screen, remembering that disk A is the 1st Word Plus disk and disk B is the disk you are copying to.

That's all there is to it. If you still have problems, it may be that the 1st Word Plus disk has been formatted using an extended format. The ST's formatting routine only formats to nine sectors per track and 80 tracks (double or single sided).

Extended formats are achieved using a special disk formatting utility, available from many PD libraries, which allows disks to be formatted to ten sectors and up to 82 tracks.

Alternatively, you can get a dedicated disk copier. There are many available both in the public domain and commercially. *Fastcopy Pro* is the best one and is available from ST Club (0602 410241) for £24.95.

Or you can get hold of a public domain copier such as *Fastcopy 3* from all good PD libraries and which also appeared on our April CoverDisk.

Falcon 040?

I have been following, with great interest, all the news in *Atari ST User* on Atari's Falcon computer. There are also rumours of a Falcon 040 featuring the even more powerful 68040 CPU.

How feasible is a 040 version of the Falcon and is there any truth to the rumours?

W Harket, Northumberland

Atari have a firm policy not to discuss unannounced products, so without any official confirmation, all reports of Falcon 040s or the like are, as you say, rumours.

However, Bob Brodie of Atari Corp recently replied to a similar question about further Falcon models, and in it he said "I am happy to confirm for you that as we stated when we announced the Atari Falcon 030, there is a new family of computers being produced by Atari.

"The Falcon 030 is the first of that family of computers. I've seen prototypes of future machines, and I believe that you'll be pleased with the results."

So, with those words from the eminent Mr Brodie, we can hopefully expect even more powerful machines, probably aimed at the higher end of the market, in the future. We'll just have to wait and see.

undoubtedly bring the exciting world of telecommunications into the home of many more Atari users.

Hard times

I will soon be buying a Falcon and having two Atari Megaflo 30 hard drives. I have been informed that due to the presence of the SCSI 2 port on the back of the Falcon, there is no longer any need for the SCSI-DMA interface

What? No reset?

recently paid a visit to my friend's house with my Atari 1040STFM in tow for a game of multiplayer Falcon. While there, we had a problem with the null modem link and my friend said we'd better reset and try again.

At this point, my friend pressed the control, alternate and delete keys on his 1040STE and the machine subsequently did a reset.

When I tried this on mine, it simply didn't work at all. Is there something wrong with my

mend any low cost software packages for sampling and video which take advantage of the Falcon's enhanced abilities.

A Moore, Liverpool

Check out the recent HiSoft adverts and you will see that they've upgraded two of the Microdeal packages - *Replay 16* and *Video Master* - for the Falcon.

Clarity 16, a sampler/editor package, now includes hardware to generate extra sampling rates of 16kHz, 22.05kHz, 44.1kHz (CD quality) and 48kHz (DAT quality).

Other features include stereo direct to hard disk sampling and editing, direct from hard disk stereo playback and much more.

Falcon Video Master now includes 64-level greyscale digitising, 25/30 frames per second grabbing (quarter screen mono) with 16-bit stereo soundtrack sampling, an enhanced sequencer offering 256 colours per frame with 16-bit stereo sampling, and an improved VidiPlay program. You can also create some stunning true colour or 256-colour stills using a video camera and the included colour filters in 320 x 200 up to 640 x 480.

Clarity 16 costs £129.95 and Falcon Video Master £99.95. Contact the firm on 0525 713671 for availability.

1.44Mb disk upgrade

I wish to upgrade my internal drive to a 1.44Mb mechanism. If I buy a bare 1.44Mb mechanism, will I just be able to plug it straight in and use it? If not, where can I get one fitted as I have little knowledge of electronics.

P Barkley, Southampton

It is not a simple matter of plugging in a 1.44Mb mechanism. The ST has a specific chip which controls the disk drive. This chip will not be able to take advantage of the drive's extra capacity and must therefore be modified. System Solutions (Tel:081-693 1919) offer a drive upgrade for £79.95 (including the 1.44Mb drive mechanism) and also offer a fitting

service to maintain any warranty which may still exist on your machine..

SERVICE

Darren Evans, Advice Service, Atari ST User, Europa House, Adlington Park, Macclesfield SK10 4NP

board that was required for ST computers.

If this is the case, will I be able to easily connect my two Atari Megaflo 30 hard drives to the Falcon using a sample cable connection?

A Philips, Essex

It is certainly a lot simpler to connect hard drives to the Falcon than it was for STs. However, the hard drives need to be SCSI mechanisms in order to connect them using a cable link.

Unfortunately, the mechanisms inside the Megaflo hard drives are either MFM or RLL drives and as such, you will not be able to directly connect these as a suitable MFM to SCSI converter will be required.

However, these are no longer manufactured as the MFM and RLL devices have been superseded with the faster SCSI and IDE type mechanisms so they are no longer supported much.

You may find such converters second-hand but I would suggest you look at buying a second-hand hard drive instead. A good place to look for cheap second-hand SCSI drives are PC computer shows or magazines; these hard drives have been used on PCs for many years now and there are always quite a number on offer at PC computer shows.

machine or keyboard or is it that this feature is specific only to the STE machines?

W Harvey, Edinburgh

Don't worry, there's nothing wrong with your keyboard or computer. Your friend's STE just happens to contain a later version of the TOS operating system which provides such added features as the ability to rename folders, move files and cold or warm reset via the keyboard.

Your older 1040STFM probably has TOS v1.2 which doesn't contain these features. If you feel left out, buy a TOS upgrade for your computer. Many companies such as System Solutions (0753 818816), Ladbroke Computing (0772 203166), Compo Software (0480 891819), Analogic (081 546 9575) and Power Computing (0234 843388) offer TOS upgrades along with fitting services so contact any of these for availability and price

HiSoft Falcon support

I am soon to buy a Falcon in addition to my MegaST (to which I have added extra hardware including accelerator, Overscan and graphics card). When I get the Falcon, I will be looking to use it for video and sound applications and I was wondering if you could recom-

Got a problem?

Are you at the point of taking an axe to your ST? Do you want to pulverise your printer? Well just count to ten and relax. Then, jot down the problems you are having, along with a detailed description of your setup.

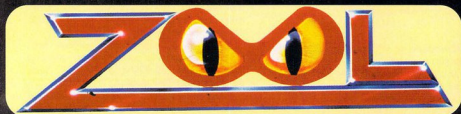
Include information on the type of ST you have, the TOS version (if known), what peripherals are attached and any extra hardware that lurks inside your computer (accelerators, graphics cards and so on) and I'll do my very best to come up with a solution.

For those who have had problems and overcome them, chances are that someone somewhere is having the same problems and would benefit from your advice.

So get in print and send any tips or suggestions that other users may find helpful.

Send all tips and cries for help to: Darren Evans, Advice Service, Atari ST User, Europa House, Adlington Park, Macclesfield SK10 4NP

Dropool over



for free!

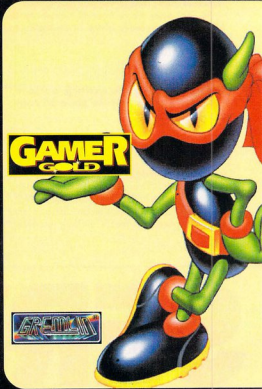
Atari ST User and Gremlin Graphics have got together to bring you one of the very latest brand new games for the ST. Here's your chance to win one of 10 copies of the Gamer Gold award winning Zool, worth £25.99 each.

Zool pushes the ST to its gaming capacity and involves some of the best colour and graphics yet seen on the Atari. It probably has the swiftest and smoothest scrolling ever. Zool's outstanding quality is its playability. Gremlin's latest game earned a massive 92%, making it more than worthy of its Gamer Gold award.

Sent down to earth on a mission of discovery, our pint-sized hero suddenly finds himself in a world full of danger. Can Zool overcome the challenge to prove himself as the ultimate intergalactic ninja, or will he end up just another ex-ninja from the "Nth" dimension? Enter this competition and you could be one of the 10 lucky winners to find out.

A copy of Zool could be yours for a quick phone call which should cost you under £1 at cheap rate. To keep the cost to a minimum try to avoid background noise, which may necessitate the repetition of answers.

Prizes worth £260



HOW TO ENTER

You can enter by phone as many times as you wish. All you have to do is answer the very simple questions below. Please try to avoid background noise.

You will be asked to leave your answers together with your name and full postal address including postcode. Please speak clearly, spelling out any difficult words.

- Which dimension does Zool come from?
 - 9th
 - Nth
 - 7th
- How much does Zool retail at?
 - £34.99
 - £29.99
 - £25.99

3. What overall percentage did Zool receive to gain his Gamer Gold award in the Atari ST User review in this issue?

- 85%
- 90%
- 92%



0891 543305

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Have you ever wanted a monitor that can adapt to any display configuration or system? A monitor that is compatible with most computer systems so there is no fear that when you upgrade to a new machine in a few years time, you'll find your screen redundant and technically useless?

The 14-inch MicroVitec Cub-scan 1440 monitor boasts such features. It comes in a creamy grey casing with front mounted controls.

These include the Digital Memory Sizing buttons, on/off, brightness and contrast settings and a dual function LED indicator that glows green when switched on and changes to amber once the monitor has been able to picture lock. Round

the screen offers. As well as this, it has a 0.28 dot pitch and an anti-reflective silica face plate to help the user a little during long sessions in front of the keyboard.

For the adjustment of display shape and sizing for a particular resolution, the Digital Memory Sizing option will solve any problems that you may come across.

AUTOMATIC RECALL

This is a programmable system that is designed to accommodate non-standard signals and allows for many of those settings to be stored for automatic recall.

The control panel has four push pad buttons: Select, Adjust (+ and -) and Program. Select refers to the four symbols below the main buttons. By pressing it and using the + and - keys, you can stretch the picture horizontally and vertically or move it to the left, right, up and down.

Once the display is customised to the computer's exact requirements,

with the ST, you'll have to buy a Falcon adaptor for the monitor lead. The only major negative point is the manual; while clearly stating how to operate the various functions of the Cub-scan, it doesn't differentiate whatsoever between the different models in the range.

I spent some time wondering why there was an analogue port but no TTL option or BNC connector as mentioned in the literature. After a call to MicroVitec, I was told that BNC and TTL are only available on the sister machine, the Autocan 1440 and not on the model reviewed.

Much clearer labelling on the box, instructions and the actual screen are needed or it might just lead to customer confusion about exactly which display they're buying. Fortunately, the company said that the necessary changes are being made so this problem should be rectified soon.

SUNKEN PANEL

Smaller niggles are the positioning of the contrast and brightness knobs which are also too stiff, and if you've got large hands, you'll find yourself constantly scraping them against the top of the sunken panel because there's hardly any room for manoeuvre.

The final grumble is that when the screen is completely white, if you step back from it you can just make out waves of slight greyness moving horizontally across it.

On the whole, the picture is clear and crisp, the colours sharp and full. The Cub-scan 1440 offers good value for money and boasts a flexibility and versatility that will suit nearly all of your resolution tastes. Highly recommended.

Take a long term view

Adam Phillips reports on the screen for all resolutions

the back is the analogue port for your lead to slip in to and a DMS input socket which is, apparently, for factory use.

The Cub-scan monitor offers a horizontal rate of 15 to 40kHz and a vertical rate of 45 to a 90Hz (both infinitely variable) which means that it will display analogue based RGB, EGA, VGA, SVGA, PGA, CGA and others with optimum display settings for picture size and position, as long as the picture output frequency matches the range that

simply pressing the Program button stores the information in the monitor's memory, which can hold up to about 40 settings (including the pre-set configurations).

There is no need to load them back in - the monitor will register which resolution is required and simply match it with what it has in storage.

How does this all affect the ST and Falcon? On testing the screen, it all works rather well. In the ST's case, the user can flick from colour low and medium resolutions to mono hires with the same monitor, the only gripe being that for a fully operational system, an ST mono/colour switch box adaptor is needed to fit the lead into your computer's port.

Given the MicroVitec's ability to display all of Falcon's programmable resolutions, it is an ideal tool, and it matches the computer's configurations move for move within its range even when used with display enhancers such as Screenblaster. As

The Cub-scan 1440: Spelling the end of monitor incompatibility?

BOTTOM LINE

FEATURES

With its DMS system, this is one of the most flexible monitors for the ST.

Excellent
Good
Average
Bad
Appalling

EASE OF USE

The manual may be misleading but all the functions are simple.

Excellent
Good
Average
Bad
Appalling

VALUE FOR MONEY

A high quality product with a high quality product price tag.

Excellent
Good
Average
Bad
Appalling

Product: MicroVitec Cub-Scan 1440 Monitor
 Supplier: Ledbrooke Computing, 33 Ormskirk Road, Preston PR1 2QP
 Telephone: 0772 203166
 Price: £399.99
 Configuration: ST and Falcon with the appropriate adaptors

Product: Ledbrooke ST Mono/Colour Switch Box Adaptor
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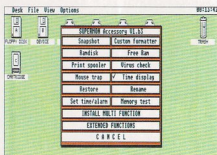
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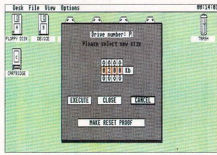
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Supermon's accessory features numerous useful utilities in one single package

Darren Evans checks out Power Computing's Superman, a cartridge and software combination utility with some interesting features



The RAMdisk can be made reset proof and is useful when using the task switching facility

It's quite difficult to categorise Superman. I suppose you could call it a multi-utility/accessory program, containing many useful utilities in one single package.

These include a RAMdisk, disk formatter, screen grabber, virus checker, print spooler, mouse utility, clock/alarm, memo program, program debugger (just let me take a breath here), task switcher, file undelete/rename facility, memory test utility and more.

The majority of these features are available through an accessory which can only be executed if the cartridge is plugged in. Most ST users know about RAMdisks and screen grabbing utilities so let's take a look at two of Superman's more interesting features—the task switcher and program debugger.

The task switcher, or Multi function as it is referred to in the documentation, allows you to effectively split the computer's available memory in two.

TWO IN ONE

So, if you have 1Mb of memory, after using this feature you will essentially have two 512k STs with each being able to have a different program running on it.

You can then switch between the two programs by pressing a specific key combination. Also, programs running in each separate area can have different screen resolutions and be either GEM or non-GEM.

Another very useful feature is that, upon installation of the Multi function, a RAMdisk can be created to a user-defined size, which can then be shared between the two separately executing programs. This enables the transfer of files from one application to the other.

It must be realised at this point that the Multi function does not provide multitasking capabilities in that the programs are running concurrently. Instead, when you are using one program, the other is frozen until accessed again.

The main part of the package is the Superman utility, whose code resides within the cartridge. To access the Superman program, you must first install a desktop icon for it. This is much the same procedure as installing a hard or RAMdisk drive icon, except that the

drive letter must be a lower case letter c.

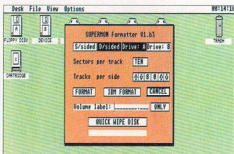
Once installed, double clicking on the c drive icon will open up the cartridge showing its contents, in this case a file called SUPERMON.PRG. Double clicking on this executes the program.

Supermon's main function is program debugging. To this end it is armed with many useful aids such as tracing, single stepping, break points and disassembly listing.

When a program crashes, the ST does not exactly give you detailed information on the cause. Instead, you usually get either an error message, in the way of a TOS error or bombs on the screen, or it will just lock up. This unhelpful attitude makes finding the cause of the problem very difficult for the programmer.

However, with Superman installed, any problems which cause the ST to crash or bomb out are intercepted and the SUPERMON.PRG program is executed.

It is then possible to examine all the registers for their current contents and also to check out any portion of the ST's memory for clues as to the cause of the error—obviously much more productive



The formatting utility has some useful features too, such as a quick wipe and IBM compatibility options

Utilities unlimited

than the ST's own error reporting abilities.

Supermon provides useful disk facilities too, including the ability to load and inspect files using either a hex, disassembly or ASCII display, read/write to sectors, search disk and directory and boot sector information displays.

The only gripe with this package is the manual. It is poorly laid out and designed and is not exactly professionally written. However, it does have a fairly good tutorial section.

The Superman package will no doubt be a useful tool for the programmer looking for a utility to help iron out program problems, but it is equally useful for the non-programmer in that it offers many everyday utilities which make using your ST much easier.

BOTTOM LINE

FEATURES

Many useful utilities for both the experienced programmer and the average user.

Excellent
Good
Average
Bad
Appalling

EASE OF USE

Despite the manual, the average user should have little difficulty in using it.

Excellent
Good
Average
Bad
Appalling

VALUE FOR MONEY

Not exactly cheap but has good range of features.

Excellent
Good
Average
Bad
Appalling

Product: Superman
Supplier: Power Computing Ltd,
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Roy Stead on teaching your ST the art of hanging around

The time has finally come to plunge into the deep end and start scuba-diving our way around the GEM system. But because GEM makes use of a lot of bit-flags, we'll first need to take a look at something called bitwise operators in C.

We've already encountered the "&&" (Logical AND), "|" (Logical OR) and "!" (Logical NOT) operators, which are used to combine expressions in a conditional statement.

Thus:

```
((foo == 3) && (bar == 4))
```

is TRUE if – and only if – some variable foo has a value 3 AND some variable bar has a value of 4, otherwise the expression is FALSE.

Similarly,

```
((foo == 3) || (bar == 4))
```

is TRUE if foo has the value 3 OR bar has the value 4.

Finally, using a logical NOT will reverse the TRUE and FALSE values, so that !((foo == 3)) will be TRUE on all occasions except when foo has the value 3.

In this case, the statement is equivalent to writing (foo != 3), but that will not always be the case.

We can visualise this by drawing up a table of values for all of these Logical Operators, as in Table 1 (see next page), where a TRUE expression, logically ANDed with a FALSE expression, gives FALSE as its result.

Now, I'm sure that I don't need to tell you that numbers are represented by a computer using binary (base two) notation, as a sequence of ones and zeros.

The bitwise operators exist to allow us to change the individual binary digits (bits) of a number, using a second number, which is usually called a bit mask.

Take a look at Table 1 again, and this time substitute 1 for TRUE and 0 for FALSE. You will see the effect of "&" (Bitwise AND), "|" (Bitwise OR) and "~" (Bitwise NOT) on the individual bits of a number.

In the case of bitwise operators there is a fourth case, called eXclusive OR – usually abbreviated to either XOR or EOR – which sets a bit to be 1 only if one bit is set (equal to 1) and the other reset (equal to 0), and resets it to zero if both are set or both are reset. XOR is represented by the uphat ("^") operator. The effects of these bitwise operators are given in Table 1.

So suppose that you want to pass a whole load of flags to a function to tell it how to behave. One way of doing this would be to pass, say, 12 different variables to your function, but this is slow and pretty inefficient, and you would need to pass pointers to each



variable if you want the functions called to be able to change their values (see Figure III).

Alternatively, you could store all of the flags in a single structure and pass a pointer to the structure to your function instead (see Figure IV). While this removes inefficiency in terms of speed, it retains inefficiency in memory terms. A more sensible approach would

```
if ( (flags = FLAG2 | FLAG6 | FLAG10) &
    FLAG6) printf ("fooln"); else printf
("bar\n");
```

Now that we know what a bit mask is and what can be done with it, it is time – at last – to turn to the GEM system, which makes copious use of bit masks. Perhaps GEM's most important function is `evnt_multi()`, which asks GEM to wait for one of a variety of things to happen, and tells you exactly what happened.

Since an `evnt_multi()` call is extremely – complex, and forms the central core of any GEM program, it is generally a good idea to have only a single `evnt_multi()` call in your program.

However, we also want to be able to access GEM (if only to find out where the mouse pointer is) at any time during the execution of our program. Thus, we are forced to rethink the way our Othello program works.

Previously, when the computer was working out its move, we would just call

Waiting game

be to store all of the flags as individual bits of a single value, which can be passed to and returned from your function – as in Figure V.

Such code could be unreadable, however, and so we can make use of compile-time calculation by defining our bit masks as macro values, as is done in Figure VI.

As you can see, I've used the bitwise OR operator (|) to set the individual bits in our (int)flags variable.

The other bitwise operators can be used in a similar way to affect the individual flags in our variable – some simple, often-used, operations which you might find useful are the conditional expression:

```
(flags & FLAG4)
```

which is TRUE if FLAG4's bit is set, FALSE if that bit is reset, and some simple methods of setting and resetting individual bits in a flag variable, while leaving all other bits unchanged:

```
flags |= FLAG4;
```

sets FLAG4's bit.

```
flags &= FLAG4;
```

resets (clears) FLAG4's bit, notice the use of the bitwise NOT here.

```
flags = FLAG4;
```

toggles FLAG4's bit from set to reset, or vice-versa. Of course, it is often convenient to set, reset, toggle or clear whole groups of flags simultaneously, using something like this:

a simple "top-level" function which would perform massive numbers of calculations to work out the computer's preferred move.

Now, however, we want to be able to work out all of these calculations a little bit at a time and so we need to be able to communicate with the top-level function in order to tell it "start working out the move" or "carry on with the move you're working on," as well as to allow that function to say something like "OK, I've finished and the move is made".

If you take a look at the `othello()` function in the file `MAIN.C`, you will see that we achieve all of this by sending/receiving a variable called status to/from the top-level function.

While this may look simple enough from the `othello()` function, I'm afraid that you will have to take a deep breath before plunging into the `COMPUTER.C` file, which is where all of the major changes have been made.

You should follow through the lines of communication between the various parts of the new system a few times to make sure you can see how the whole process has been made incremental, since this kind of thinking is fairly common in GEM.

At this stage, as you can see, the entire Othello program is being driven by a single `while()` loop in the `othello()` function. Everything inside that loop will be executed almost simultaneously with the rest of the program, and so it is in that `while()` loop that our `evnt_multi()` call should go.

Now, pay attention to this bit because there's no `evnt_multi()` call in

the program on the CoverDisk. That's right — this month's little exercise it to install an `event_multi()` call in that while() loop.

An `event_multi()` call looks like this:

```
event = event_multi ( ev_wait,
ms_clicks, ms_mask, ms_state, r1_flag,
r1_x, r1_y, r1_w, r1_h, r2_flag, r2_x,
r2_y, r2_w, r2_h, msgbuf, lo_timer,
hi_timer, &msx, &msy, &ms_btn,
&kb_state, &kb_char, &btn_clicks );
```

The first argument in your `event_multi()` call, `(int)ev_wait`, is a collection of flags, all BitWise ORed together, which tell GEM which event(s) to wait for. Digital Research — who wrote GEM — helpfully provide macro symbols for the various events, and so we can refer to the events by name fairly easily.

`MU_KEYBD` will wait until the user presses a key (a "keyboard event"), while `MU_BUTTON` will wait for a "mouse button event" and `MU_TIMER` waits until a specific length of time has passed (a "timer event").

After these event flags come three int variables which specify what kind of thing will cause an `MU_BUTTON` event. The values here will be used only if `MU_BUTTON` is one of the events to be waited for, but there must be some int values here regardless.

MOUSE CLICKS

The first, `(int)ms_clicks`, tells GEM the maximum number of mouse clicks that the program is interested in, and will usually have the value 1 (single clicks only) or 2 (single or double clicks are of interest).

The second, `(int)ms_mask` indicates which mouse button(s) you are interested in checking — the left, the right or the left and right. Notice that GEM provides no way for you to check either the left or right button; only one or both.

The third value, `(int)ms_state`, indicates the desired state of the mouse buttons which will trigger a "mouse button event".

I generally find it useful to place the following two declarations in my header file, to be used singly or ORed together to provide the values of `ms_mask` and `ms_state`:

```
#define L_BUTTON 0x0001 /* Left mouse
button */ #define R_BUTTON 0x0002 /* Right
mouse button */
```

Thus, with the `MU_BUTTON` set in `ev_wait`, `ms_clicks` set to one, `ms_mask`

set to `(L_BUTTON | R_BUTTON)` and `ms_state` with the value `L_BUTTON` a "mouse button event" will be triggered when — and only when — the left mouse button alone is pressed by the user.

The ten ints which follow are used by the "mouse rectangle events," `MU_M1` and `MU_M2`, while `msgbuf` is an int pointer to a buffer of eight ints, which is used by the "AES message event" `MU_MESAG`. We will deal with `MU_M1`, `MU_M2` and `MU_MESAG` events in future columns.

The `(int)lo_timer` and `(int)hi_timer` values, taken together, specify the length of time which `event_multi()` will wait before it automatically provides a "timer event."

The length of time to wait is given, in milliseconds, by `(hi_timer * 65536) + lo_timer`, with values of zero guarantee-

BitA	BitB	(A&B)	(A B)	(A^B)	~A
1	1	1	1	0	0
1	0	0	1	1	0
0	1	0	1	1	1
0	0	0	0	0	1

Table II: The bitwise operators

ing that the `event_multi()` will stop waiting immediately. This, needless to say, only applies if the `MU_TIMER` flag was set in `(int)ev_wait`.

The final six arguments of `event_multi()` are all pointers to ints which are to contain, on return from the `event_multi()` call, the x and y co-ordinates of the mouse pointer on the screen (`max` and `msy`), the status of the mouse buttons, in the same format as `ms_state` and `ms_mask` (`ms_btn`), the number of times the mouse button was clicked (`bin_clicks`) and the code of a key pressed by the user (`kb_char`), in the same format as the `Bconin()` call in our existing source code.

The `kb_state` int will contain the status of the ST's keyboard Shift keys in the form of bitflags. Thus, if `(kb_state & 0x0001)` is true then the right-hand Shift key was pressed at the event. Similarly, `0x0002` refers to the left-hand shift key, `0x0004` to the Control key and `0x0008` to Alt.

It is useful to know that these final six variables will be set to their values whatever event actually took place. Finally, the event(s) which actually caused `event_multi()` to stop waiting will be indicated in the value returned, `(int)event`, in the same format as `(int)ev_wait`.

```
main()
{
intflag1=TRUE;
intflag2=FALSE;
intflag3=TRUE;
intflag4=TRUE;
intflag5=FALSE;
intflag6=TRUE;
intflag7=TRUE;
intflag8=TRUE;
intflag9=TRUE;
intflag10=TRUE;
intflag11=TRUE;
intflag12=FALSE;
voidfoobar();

foobar(&flag1,&flag2,&flag3,&flag4,&
flag5,&flag6,
&flag7,&flag8,&flag9,&flag10,&flag11,
&flag12);
};
```

Figure III: Separate variables

```
main()
{
voidfoobar();
struct my_flag {
intflag1,flag2,flag3,flag4,flag5,flag6,
flag7,flag8,flag9,flag10,flag11,flag12;
};
(TRUE,FALSE,TRUE,TRUE,FALSE,TRUE,
TRUE,TRUE,TRUE,TRUE,TRUE,FALSE);

foobar(&flags);
};
```

Figure IV: Using a structure

```
main()
{
intfoobar(),flags=0x0C7E;

flags=foobar(flags);
};
```

Figure V: Using bit flags

```
#defineFLAG1 0x0001 /*Note the use
of hexadecimal, to clarify */
#defineFLAG2 0x0002 /*Which individ-
ual bit is being referred to.*/
#defineFLAG3 0x0004
#defineFLAG4 0x0008 /*Try re-writing
these numbers in decimal, */
#defineFLAG5 0x0010 /*to see why I
chose to use hexadecimal. */
#defineFLAG6 0x0020
#defineFLAG7 0x0040
#defineFLAG8 0x0080
#defineFLAG9 0x0100
#defineFLAG10 0x0200
#defineFLAG11 0x0400
#defineFLAG12 0x0800
```

```
main()
{
intfoobar(),flags=FLAG1|FLAG3|FLAG4|
FLAG6|FLAG7|FLAG8|FLAG9|FLAG10|FLAG11;

flags=foobar(flags);
};
```

Figure VI: Using bitflags with sensible bit masks

Value of foo	Value of bar	(foo&bar)	(foo bar)	!foo
TRUE	TRUE	TRUE	TRUE	FALSE
TRUE	FALSE	FALSE	TRUE	FALSE
FALSE	TRUE	FALSE	TRUE	TRUE
FALSE	FALSE	FALSE	FALSE	TRUE

Table I: The logical operators

Little fluffy clouds

NOVEMBER 1993

GAMER

A320 Airbus USA

**Luxuriate in
Maharajah
Class in
Thalion's
great new
PUNJAB-tastic
flight sim**

**REVIEWS... ZOO! • THOMAS THE TANK ENGINE 2 • LEGENDS OF VALOUR •
HUCKLEBERRY HOUND AND MUCH MORE...**

**ALSO... DRAWING BOARD ON AMBERMOON AND LAMBORGHINI CHALLENGE •
CHEAT MODES ON TRANSARCTICA AND WAR IN THE GULF • THE LATEST
BUDGETS REVIEWED • PLUS THE MOST EXCELLENT NEWS FROM THE
ST GAMES SCENE**

Gamer GLOBE

Yes, it's funky, fresh, fly, dope, kickin', illin', chillin' and bostin. Here is the news...

The world's greatest sequel?

The sequel to the biggest game ever on the ST is going to hit the small screen in mid-November. It is the most talked about sequel in the whole games world. Hold onto your trousers because Frontier - Elite 2 is coming!

Published by Gametek, it simulates life as the owner of a spacecraft set in 3200 AD. Frontier has been designed with the same unique feel as the original classic Elite, and with five years development time invested, the graphics and gameplay have been greatly enhanced.

You begin with a very small and poorly armed ship left to you in your grandfather's will from the previous game. Frontier then takes you on an amazing journey following a huge variety of different avenues.

Because of the author's interest in astronomy, this aspect is modelled in extreme detail. Over 100 star systems near Earth are based on information from astronomical data and incorporated in great detail.

Frontier is huge and the way the game has been produced it is completely open-ended. There are several ways in which to play Elite 2. You may want to get to the top ranks in the Federal Military or Imperial Navy.

You might want to try to get awarded all 12 different medals for military service. Alternatively you can commit as many crimes as possible and turn into the most dangerous criminal in the universe.

Words can't really describe how good Elite 2 is going to be, but we have to say that you'd be a complete loony to ignore it. It could well be the best game ever to appear on the ST. Is that just hype? You'll find out soon enough when Gamer reviews it - so keep reading!

Sierra go Gold

US Gold have just signed a two-year deal with Sierra to publish their back catalogue of games at budget prices. US Gold will bring out 28 titles, and the good news is that many of them will be available for your machine. In fact, some have never been released on the ST before.

The first batch of products is due to start arriving in the next few weeks. Gamers will be able to get their hands on Hoyles 1, Kings Quest 1 and the ever popular and always dirty, Leisure Suit Larry 1.

Adventure fans will also be able to play Police Quest 1 and Space Quest 1 when they are released later. Prices are yet to be confirmed, but they are expected to be between £12 and £16.



US Gold are set to release budget versions of Sierra games, many of them for the ST

Can you Kixx it?

Budget fanatics had better start saving up that precious cash because there are a whole wealth of cheapies on their way thanks to US Gold's budget label, Kixx XL.

The first three games will cost you between the £12.99 and £16.99. First is Knights of the Sky, a World War One flight simulator where you play a hunter stalking Germany's most celebrated pilots. Features include 20 planes, hundreds of missions and 13 dazzling 3D perspectives.

Night Shift is an arcade action puzzle game where you take control of an unconventional toy machine. Highlights include some quality graphics, great sound

effects and loads of humorous animated sequences.

Last of this batch will be Robin Hood, a vastly underrated action adventure originally created by the skillful hands of Millennium. You take on the role of Robin and must recruit and direct your band of merry men and eventually defeat the evil Sheriff of Nottingham.

The game uses an isometric 3D perspective and an easy to use icon control system.

All three are absolute bargains and if you've never played them before are well worth spending that hard earned cash on. Future budgets will include a certain game that has something to do with islands and monkeys. I'm sure you know what I'm talking about!

Could it be magic?

Empire are out and about on the arcade front with a platform romp entitled *Magic Boy*. It features a massive 96 levels split between 64 main and 32 hidden levels of superb colourful arcade action that make all other games look black and white by comparison – or so Empire say, but who are we not to believe them anyway?

You play Hewlett, a young naive and hopelessly accident-prone apprentice wizard who, while his master is away has inadvertently released a large number of monsters.

You must guide Hewlett in search of the monsters and return them to their cages before the master wizard returns. This is not quite as easy as it sounds because some of the monsters will attempt to work their own magic and use cunningly intelligent strategies to dodge Hewlett and avoid being caught.

Not all the levels are safe to be in at all, with dissolving platforms, lethal lakes, springs, traps, slippery surfaces and a whole range of hazards out to get you.

Not everything is against you however, for each monster you shoot will drop a special capsule, which if you collect will yield special power. Magic Bolts, lightning, jet-packs, shields, fruit and super-star capsules will all help Hewlett in his quest.

Empire's platformer will feature four track sampled music and sound effects. Four different world graphic styles are wonderfully presented on a parallax scrolling background.

Magic Boy, created by the designers of the award winning *Pipe Dream*, should arrive before the end of the year.



Champions! Champions!

As promised from a couple of months ago, we are now able to bring you some details of Ocean's latest and hopefully greatest soccer game ever.

Two years of research has a sizeable chunk of imagination has helped Ocean to develop this pulse-racing blend of furious arcade action.

European Champions features a host of crack teams from England, France, Italy, Germany and Spain and you'll need accurate touch control and pinpoint passing to take on the best teams in Europe.

Total video control gives you complete command over viewing. You can replay, rewind, fast forward, freeze frame or even watch the action in slow motion.

The choice to play or watch the game from overhead or from the stands is entirely up to you. These views effectively provide a bargain of two games for the price of one.

You can scrap it out with a chum or even take on the might of the computer and with 10 skill levels you'll know you've had a tough match no matter how talented you are.

European Champions should be available any day now and the management follow-up *Super League Manager* will be around in just over a month's time.

Are you ready to fly?

Tornado has still not been released, but to keep you all interested, Digital Integration have just announced the release of an album-length CD and cassette featuring music from and inspired by the *Tornado* flight experience.

The music was written and produced by Dominic King, David Punshon and Richard Wells. David Punshon was commissioned by DI to provide the music for the game, and Dominic King is a prolific songwriter who has written music for the likes of Roger Daltry (a[hem] and Carly Simon (oh dear) to name just two, and sound tracks for films such as *Grease 2* (ha ha).

Hits included on the album are *Storm* by Hollywood Nights, *We Can Fly*, *err Fly* and *Are you Ready to Fly* by Rozalla. The CD will cost you £10.99 while the cassette is slightly cheaper at £8.99.



INNARDS

Can you pogo or what?

REVIEWS-REVIEWS-REVIEWS

ZOO68

The Ninja from the Nth Dimension is here! The best platform game ever on the ST?

THOMAS THE TANK ENGINE 270

Chuffin' good fun with Thomas and all his chums kindly supplied by Alternative Software

A320 AIRBUS USA72

Yes, it's back. Take on the States in Thalion's updated civil flight simulator

LEGENDS OF VALOUR76

Hmm, I'm looking for adventure and by jingo I've found it courtesy of US Gold

HUCKLEBERRY HOUND79

Oh my darlin', oh my darlin', oh my darlin' Clementine. Huckleberry Hound – was he crap or what? Discuss

REGULARS-REGULARS-REGULARS

CHEAP SEATS74

Ravey Dave Cusick checks out the latest releases for those people who are feeling the recession biting. Ouch!

DRAWING BOARD 1:

AMBERMOON75

Thalion return with a sequel to the RPG-tastic *Amberstar*. What next? *Ambersun*?

CHEAT MODE:

TRANSARTICA78

The complete guide to Silmarils' brilliant train strategy/adventure/trading game!

DRAWING BOARD 2:

LAMBORGHINI CHALLENGE...80

Titus re-jiggle *Crazy Cars 3*. Rev your engines, place your bets and get ready for some hard fought illegal road racing

CHEAT MODE:

WAR IN THE GULF82

Climb in your tanks and take a look at our *Gamer* guide which was kindly scribbled by our resident games expert, Dave

Well first off I should like to shout a rather loud huzzah that Zool has finally made it to the ST.

Over the last few months it has been touch and go as to whether Gremlin were actually going to continue producing software for Atari computers.

Thankfully, they've given the ST the green light and voila, here's Zool.

With a name like that, it's no surprise that he's an alien, and you know what a funny bunch they can be.

Over the years our earthlings have been treated to a veritable plethora of beings from other planets.

Who can forget the wheely-bins themselves, the insidious Daleks? A bunch of green snat-like things who travel around inside a can covered in light bulbs.

This race, who have the audacity to believe that they should be the masters of the universe, are so useless that they can be defeated by the carpet in your front room.

This is due to their amazing advancements in technology, which renders them absolutely useless on anything but flat marbled floor.

Then there were the fearsome killers of Alien 1 to 3 fame. These so called indestructible insect like things were nothing of the kind.

Put them up against a redhead, a cat and an air-lock chamber and they're nothing short of useless.

Next on the list of extra-terrestrial visitors were the slimeball lying lizards from V. This bunch however, obviously observed and took notice of the mistakes the Daleks made.

They will have seen Doctor Who push all the glorified shopping trolleys down a quarry in Wales and defeat their multi-million galactic grook "take over the earth" plan.

So the sneaky V aliens waited for Peter Cushing to retire and covertly re-released Bernard's sixties hit, Right Said Fred, thus killing an already flagging career. To render

After some speculation about the appearance of the insect answer to Bruce Lee, he's finally here, the one and only Zool. But, is he as good as his Commodore cousin?

GAMER GOLD



ZOOL

their fiendish plan more effective, they dressed up as extremely beautiful women – even the bloke lizards – and were more than friendly to the powers that be.

Once they'd had lulled us gullible humes into a false sense of security they revealed themselves as the depraved reptiles they were and duly took over the planet.

But, just like the martians from War of the Worlds and the silver yo-yos from UFO, they didn't bet on the resilience and camaraderie that Hollywood can muster.

All their hi-tech nuclear powered mother ships and laser weapons couldn't outgun the courage and tenacity of a handful of dedicated scientists armed with toothbrushes and wet mud.

So once more another bunch of depleted, frustrated aliens head off into deep space feeling absolutely useless.

The big question is does Zool fall into the bracket of useless alien? The immediate response must be a resounding NO! Zool is one of the best things to appear on the ST in



Soy! Top ninja kicks out in jelly monster shock story

many a moon. Zool is a very ant like creature and a ninja from the n'th dimension. Being from the n'th dimension, the ant gets himself into some fairly hairy scrapes.

In this, the first of his adventures, he is returning from some heavy duty ninj-ing.

En-route his curiosity gets the better of him and he guides his ship towards a strange wobbling phenomena. As he travels closer a strange power takes control of his ship, and draws him into a vortex. Losing control, Zool crashes on a strange and unfamiliar landscape. Tapping into his computer to establish his position, Zool is surprised

when a message overrides his terminal.

It tells him he has been brought here as a challenge to prove himself the ultimate intergalactic ninja.

To be worthy of such an accolade, Zool must journey through six worlds, collecting artefacts and defeating enemies to precede to the next world.

To all intents and purposes this sounds like a million other platform-type romps you might have indulged in countless times.

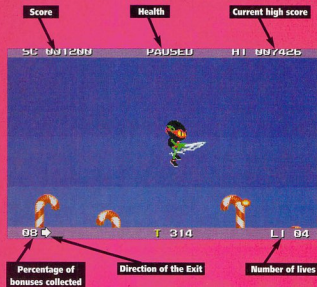
As usual the plot is as transparent as ever, so the question undoubtedly pursued on every readers' lips is, what makes Gremlin's prod-

The way of the Dragon



Zool and his world famous Liberatec Impression

Stop your Zooping around!



uct worth your hard earned cash?

The simple answer is that it's brilliant. Zool pushes the ST to its gaming capacity. Both the colour and the graphics are some of the best yet seen on the Atari.

Most outstanding of all though is the scrolling - it's probably the smoothest and swiftest in many a game.

To put all the success of Zool down to graphics and colour would be selling it extremely short, because its other outstanding quality is the playability.

You work your way around six bizarre worlds, which vary from the starting level, Sweet World, to the final setting in Funtair World.

Whichever you're on, the play is frenetic and absolutely packed to the brim with characters and pick-ups.

These range from the sublime through to the ridiculous and include such nasties as run-of-the-mill giant bees, through to the more surreal pomegranate volcanos and walking drums.

Having so many nasties wandering around the screens making the way of the ninja a hard life, it's no surprise to find there's a wide variety of weapons at Zool's disposal.

For instance, he can pick up bog-stan-



dard extra lives and shields, through to the more bizarre power-ups like Twazool.

This rather strange weapon splits Zool into two, creating a shadow image which mimics the actions of the original.

With all this colourful stuff and nonsense going on around you, you're definitely in need of a character who can perform some seriously ninja-type joystick moves.

Zool performs all the normal platform character moves like running around, jumping and sliding into enemies.

But he also has a few extra anti-like antics hidden up his sleeve. The most impressive is his jumping sword-swinging mid-air spin.

It's a good job Zool possesses such dextrous attributes because it's going to take all of your joystick abilities to swirl through the 18 sub-levels before you take on the might of the unmentionable indescribable two-eyed thing - which I just mentioned.

Really there's not much point mimicing words over the final analysis of Gremlin's latest - Zool is cool.

There's no two ways about it. Zool's one of the best things to be seen on the ST in quite a while. There's a very good chance



Eh, by gum. I remember the days when those backdrops would have been made of vinyl!

that it'll become the definitive platform on the ST, and an even bigger chance to be number one in the chart.

So, there's only one further thing to say to you out there in Gomerland. Get out and without delay buy Zool. You'll be able to walk down the street, hold your head up high and have a brilliant game to boot.

SIMON CLAYS



Oh, that Zool, he's a real live wire. Everything's gone really weird, Zool's getting hassled by a speaker... like wow!

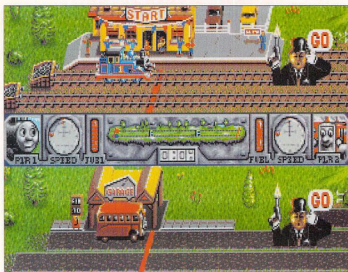


It's not every day of the week an ant will take on a. Mind you it's not everyday that ants wear Zorro type masks



Zool plays Mr DJ. Any bets it's Adam and the Ants

VISION	●●●●●●●●
AUDIO	●●●●●●●●
DIFFICULTY	●●●●●●●●
LASTABILITY	●●●●●●●●
Zool is probably the best platform title you've ever likely to see on the ST. Neat graphics coupled up with brilliant gameplay make the anti-ics of Zool a winner from start to finish - buy it.	92%
Publisher ▶ Gremlin Graphics Developer ▶ In house Disks ▶ 2 Price ▶ \$25.99 HD Install ▶ No Size ▶ 1 meg	



The start of the race and Thomas is pitted against the extraordinary talents of Bertie the Bus who unlike his real-life counterparts is on time

Excuse me if I boast and be self-indulgent for a couple of paragraphs, but there are number of loves in my life and one of those which applies to this review is children's television.

If I could sit at home all day and watch kid's TV I would become the happiest man on Earth. Postman Pat, Bertha, Fireman Sam, Dangermouse, Portland Bill, Sesame Street, Rugrats, Scooby Doo, The Flintstones... just a mere selection of my favourite programmes.

Thomas the Tank Engine is a whole different kettle of fish. If it was on and I wasn't doing anything then I'd watch it, but within a couple of minutes I'll start channel hopping and trying to find something more substantial.

Just my luck this month to then get a game about the only children's favourite that I don't particularly like. For starters, it had Ringo Starr as the narrator which was a major mistake and for some bizarre reason it always seemed to be aimed at upper class kiddies. Oh well, such is life!

Before you carry on reading, I must point out that this particular product is part of Alternative Software's Children's Range and is aimed at kids aged between three and eight years. More mature read-

ers can now turn the page, but interested parents and those who still behave like children can read on.

The story behind the game is a tale of unbridled macho boasting and bragging. The issue all started when Thomas entered into the station and feeling fairly happy and confident uttered the immortal words: "I'm a really useful engine!"

That constitutes bragging where I come from and Gordon - the Large Green Engine - also noticed this and challenged Thomas. "Oh yes" puffed Gordon in a very sarcastic tone, "But I bet you're not as fast as me".

This started a major



Percy races around the bonus stages and is about to zoom into the lead when he collects that last letter

THOMAS the

Chuffing good race-'em-up fun arrives in your local station from the careful hand of Alternative Software. Ringo Starr is not included!

the outcome of the race is all down to your skills as a rampant games player. There is a choice of up to seven engines (Thomas, Percy, Gordon, Bill, Toby, James and Ben) and a bus (Bertie).

The option of racing against the computer or a friend is entirely up to you, but it helps a lot if you do actually have a couple of chums to play against.

FAT CONTROLLER

You are presented with a horizontally split screen which scrolls from left to right. The first one past the finishing line wins. Simple? Well, not quite that simple because all the rail signals must be obeyed, otherwise the Fat Controller will make you wait while he tells you off.

If you crash into obstructions and other engines you will waste a few seconds of precious time. You'll lose time if you travel down dead ends and you'll also sacrifice some water which slowly runs out as you progress through the race.



The Fat Controller gives Gordon a ticking off for going through a signal when he wasn't meant to. Naughty engine!

argument which was littered with obscene and offensive comments swinging to and fro between each engine.

Bertie the Bus just laughed at the two, but the Fat Controller overheard the commotion and decided to put a stop to it at once.

He shouted to the argumentative engines: "We'll soon see who is the fastest. I will hold a racing competition and keep times with my pocket watch, then we'll know who is the best." The two feisty trains began stoking their engines in readiness for the race.

This dear reader is where you come in;



James stops at a water pump for a quick fill up and takes time to admire the beautiful countryside

TANK ENGINE

If you run out of water you will lose the race, so filling up is one of your main priorities. There are several water pumps where you can stop to fill up. Your water gauge will show you how much you have and warns you when you are getting low by flashing.

In each race, there is a bonus stage in the form of a short-cut that will only let

one player through. The first to reach the flashing lights at the entrance to the bonus stage will be allowed to enter.

The bonus stage is completed by collecting the five letters that spell the word "Bonus". Once finished the player will rejoin the race some distance further along the track.

That is basically all there is to know about Thomas 2 because it is an incredibly basic game. That's a good point though because it's easy to play and a

whole lot of fun to boot. I'm not exactly a tot, but I really and truly enjoyed playing Alternative's train/race-'em-up.

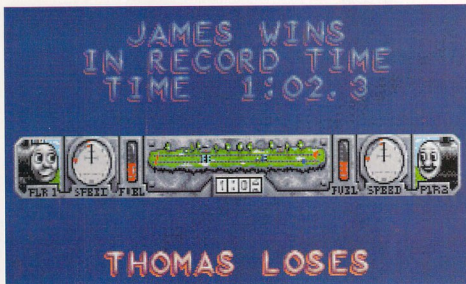
The graphics are impressive with brilliant reproductions of Thomas and all his chums. Soundwise there is an accurate rendition of the theme music from the TV show and plenty of sound effects throughout.

Thomas 2 sounds and looks terrific. It's highly playable and is great fun. It's very hard to knock Alternative's latest,

but I'm in a bit of a quandary. I could give it anything between 70 and 90 per cent. If you're aged between three and eight then you're going to love it, but if you're older you won't find much to keep you going because it is so basic, although the two-player mode is strangely addictive if you've got an insane friend to play it with.

Technically it's brilliant, but it isn't going to appeal to everyone. As it is specifically aimed at the younger market I'm going to give it 90 per cent. Remember it is only £9.99 and you do get great value for your money.

JONATHAN MADDOCK



Thomas loses! Surely you must be mistaken! Oh well, I thought he was getting a bit cocky ever since he signed that merchandising deal

VISION	GGGGGGGG
AUDIO	GGGGGGGG
DIFFICULTY	GGGGGG
LASTABILITY	GGGGGGGG

For younger gamers this is an ideal product. Excellent graphics and sound coupled with good playability factor make Thomas 2 a highly enjoyable game.

90%

Publisher > Alternative Software
 Developer > In House
 Disks > 1
 Price > \$9.99
 HD Install > N/A
 Size > 1 meg

The very mention of A320 Airbus sends a shiver down the spine and the mind spiralling back to the days of the package holiday.

Arriving at the airport some three days before your two in the morning, cheap rate flight is due for take off, you queue with a herd of other revellers all mooring with excitement over the prospect of sun and fun on the Costa.

After waiting some three hours in a fly-infested baggage check-in behind the enormous Mrs Mankey, her three jammy-faced sprogs, her sombrero and her 13 suitcases which are full to the brim of mosquito repellent and diarrhoea cures, you finally hand your bags in.

Once you've been handed your tickets, the caring ground-crew cattle prod you towards the departure lounge where you set up camp for the remainder of the time. Living on a diet of insipid coffee and stale sandwiches you count the hours until your flight is called.

As the time counts down an air of expectancy fills the room. With only 30 minutes till boarding an announcement

booms over the tannoy telling you that due to Spanish air traffic control restrictions the flight has been delayed a further two months.

Finally, it's time to board. After the mad rush, 200 sweaty carcasses are settled in their seats anticipating their stale food, copious amounts of lager and a good opportunity to goose and verbally abuse the hostesses.

One stale bread roll, 13 cans of lager and more insipid coffee later it's time to settle back to make your choice of entertainment.

Will you watch Home Alone on video again? Listen to Tony Blackburn's all time most favourite top pop songs of the century? Or will you sit back and listen to the wild pack of Geordies three rows behind sing lewd songs at the air hostesses.

Four hours of "Get yer... for the lads" later, and it's time for your white knuckle ride onto 7000 feet of Spanish concrete.

As your hand-painted Dan Dare 737 vibrates its way through the Spanish mountains, pandemonium sets in once more. The engines complain as the power is reduced, 13 Geordies reach for sickbags, kids everywhere spontaneously break into tears and everyone else embeds their fingers into the seats.

However, with a screech of rubber, the smell of vomit and a sigh of relief now you've only got the holiday to contend with.

Fortunately Airbus has very little to do with the passengers on domestic flights. Instead it concerns itself with the serious business of safely commuting people from airport to airport in the United States at the helm of a state of the art modern airliner.

Unlike many flight sims, especially military ones, designers Thalton have concentrated on

I think there's going to be rain, rain, rain and a tad more rain

A320



After a long flight the last person you want to bump into in the de-briefing room is Richie Benard

making A320 as realistic as possible. In fact on opening the box one finds a host of technical manuals and a complete set of charts.

At first glance this may seem daunting to many, so a training mode has been implemented which gives you the opportunity to select your own weather and destinations.

In full flight mode the met office supply weather and cloud ceiling, then it's up to you to decide the amount of fuel and number of passengers you wish to carry.

These are not irrelevant questions either, because they effect the way your Airbus will handle.

REAL THING

Once this has been decided it's into the cockpit and time for take off. To get off the ground you must follow the correct procedure, as everything about A320 is laid out like the real thing and must be implemented at the right time.

Once in the air, unless it's a very short across town flight you must use your trusty charts and beacon system - this could take

some time. The beacons aid navigation by sending out a signal which helps you determine how far you are from your next point of reference.

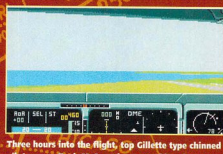
This process is repeated until it's time for landing. This time you must use more hi-tech wizardry, in the shape of the ILS - Instrument Landing System. This works on the a similar basis to the beacons, except it tells you whether you are too low, too high



The Gamer Guide to flying a commercial airliner in a disaster



Flight 203 for Los Angeles sits on runway 49. Inside along with 200 other commuters, you sit watching the air hostesses perform the fire and safety drill



Three hours into the flight, top Gillette type chinned pilot person Rock McScrot is approaching the outer beacon before touchdown. Suddenly he is doubled up by waves of pain in his stomach and within a minute he is unconscious, slumped at the controls.



Co-pilot Brad Wurst and Chuck Chunk are first to notice the dilemma. But as they do so, both grip their stomachs in pain. "It must be the salmon mousse," exclaims Brad as they simultaneously fall to the floor.

AIRBUS USA

or left or right of the runway.

However, the ILS is not the only thing you'll need to ensure a safe landing. For one, the descent needs to be controlled by proper use of power, the flaps need to be lowered and when the time is right you must put the undercarriage down.

At about four miles out the plane passes the outer marker. As you drop towards the runway the power is cut right back and as soon as the wheels skim the tarmac, reverse thrust is engaged and the brakes applied.

When you have completed your flight (tangled wreckage or intact) the computer works out a performance rating. This is based on such things as speed, heading and remaining fuel.

As you get more proficient and progress in rank, so the flights get more complicated and difficult. For example, less facilities from the auto-pilot are available and ILS autolands are not allowed.

It gets even more complicated when you reach commander as you can only use seek/hold heading function (really tough), and when you climb to the dizzy heights of chief pilot there's no facility for an auto-pilot.

A320 has been designed with realism in mind, so fancy graphics and gimmicks are out of the hold doors. For example, towns

are only displayed as grey patches.

The main differences from its older brother European Airbus are an improved control system, better sound and slightly enhanced graphics.

Even though Airbus will take a lot of mastering and patience it can get rather tedious on longer haul flights. But, it does succeed in providing gamers with a truly realistic simulation.

So if you've had your beady eye on the lookout for an accurate sim, Thalion's A320 is definitely the one for you.

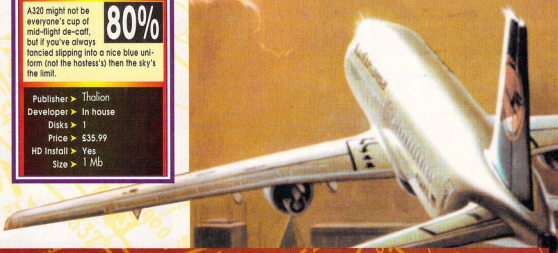
SIMON CLAYS

VISION
GGGGGGGG●●●●
AUDIO
GGGGGGGG●●●●
DIFFICULTY
GGGGGGGG●●●●
LASTABILITY
GGGGGGGG●●●●
80%
A320 might not be everyone's cup of mid-flight de-coff, but if you've always fancied slipping into a nice blue uniform (not the hostess's) then the sky's the limit.
Publisher > Thalion
Developer > In house
Disks > 1
Price > \$35.99
HD Install > Yes
Size > 1 Mb

The plane now departing on runway 49 is full to the brim of lager louts and anaemic gurlies. Join us in the cockpit to see if we make it



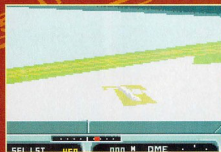
Before the flight it's that all important planning stage



movie type way



Emily Spankworthy, who had the lasagne, was first to raise the alarm. Calmly she asks over the internal tannoy if there is anyone on-board with flying experience. As you make your way to the flight cabin, a passing quail flies into engine number two.



As you wrestle with the controls, the quail in engine two ignites and bursts into flames. Ground control try to reassure you with news that a bomb has been planted somewhere on the plane, three armed Lebanese terrorists are on board and you are on course for the eye of a passing tornado.



Quick as a flash you aim the left wing at the outer tip of the tornado. This has the desired effect of putting out the quail in engine two, dislodging the bomb from the undercarriage and the force renders the three terrorists unconscious. Cool as a cucumber you land the plane blindfolded and in reverse, to rapturous applause from the passengers and Emily is very happy with you.

The Cheap seats

OK, so it's November and you spent all your hard-earned pennies on that disastrous camping holiday in Brittany. No need to be glum, cheer up your life with these cheapies

Dave's Selection

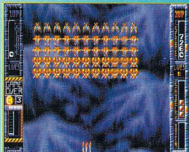
Those were the days, and no mistake. Hanging around in seedy arcades for hours, gazing intently at some spectacled teenager clocking up the points on the latest Space Invaders clone. Back then, Atari ruled the arcades, coming up with some of the most innovative and entertaining blasts ever devised.

A couple of years back, Domark decided it was high time to resurrect Space Invaders. This was to be an enhanced version for the '90s, boasting improved visuals, much more variety in terms of gameplay and lots more zapping aliens.

OK, the graphics are nicer than in the original. Unfortunately the trade-off is smoothness, because the sprites jerk about something awful and the game is about as responsive as a dead halibut.

When there's lots on-screen the action slows to a crawl and as you shoot the aliens it reaches light speed. I appreciate that this is supposed to make the game more challenging as you come to the end of a screen, but

Fans of the original arcade game will love Domark's shoot 'em up that's been upgraded and enhanced for the 90's



Super Space Invaders

The Hit Squad = £9.99

the effect is far too exaggerated and this results in an experience that really isn't very enjoyable. As far as playing the game goes, there doesn't seem to be half the appeal of the coin-op and there really isn't a considerable amount of depth. The whole thing is a bit repetitive.

Highlights include the stylish animated intro, and the zany Cattle Mutilation stage (where you defend a herd of cows from swooping alien invaders), and, erm... well, that's about it really.

Fans of the original will be disappointed by the loss of playability, and newcomers will undoubtedly wonder what all the fuss was about in the first place.



One of the new enhancements in Super Space Invaders is the introduction of bigger and better enemies

I'm quite surprised that Shadowlands has made it to budget status this quickly. It wasn't all that long ago that this rather exceptional role-playing effort first hit the streets, and the computer press heaped praise and accolades upon it in sizeable quantities.

At a budget price, Shadowlands really can't be knocked. It's an enjoyable dungeon romp with the obligatory wacky, predictable plot and silly fantastical names. It incorporates a sophisticated and practical user interface.

Every action in the game can be achieved by simply clicking on part of the character's body, and if necessary, the object to perform the action on. This makes play a pleasurable experience, as the challenge is derived from the quest itself as opposed to grappling with the control system.

The game also boasts a revolutionary Photoscope technique which realistically lights all parts of the landscape in real time. For example, if your characters are walking along with

Shadowlands

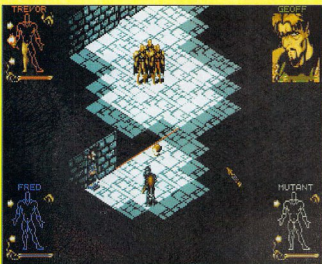
The Hit Squad = £9.99

lanterns in their hands, the resulting pools of light will move with them.

Shadowy regions, out of range of the light source, can conceal all manner of beastly, erm, beasties, so it's best to grab a torch from the wall holders wherever possible.

You can't do everything that you could in real life, such as quaffing ale or whatever, but for a computer RPG it's an excellent effort that still looks almost as tasty today as it did when it first came out.

The puzzles incorporated mean that a fair amount of brainpower is required, so if you're lost in the metaphorical wilderness as regards finding a cheap product that's fun but also has depth, Shadowlands could well be your hiking boots, compass and Ordnance Survey map. Or something.



The party bump into a rather irate skeleton who, if you're not careful, will chop you into little pieces!



The start of Shadowlands and our intrepid adventurers are about to enter the first dungeon

Germany, long the home of some of the greatest pieces of serious software to grace the ST's monitor, also has a reputation for being the place from which a large selection of quality RPGs have sprung. Such greats as *The Patrician* and *Legends of Valour* are included, among many others.

Although *Ambermoon* isn't actually quite finished yet, it's already looking like it could be a major contender in the best RPG stakes.

While a few years ago I used to be heavily into the tabletop RPG scene, I must admit that so far I think very few computerised RPGs have come close to offering the freedom of action offered by the original games.

They also seem to lack the atmosphere and complexity of their tabletop forerunners. Certainly, the odd games such as *Dungeon Master* have become classics and rightly so, but they still haven't been as good as the real thing.

INNOVATIVE

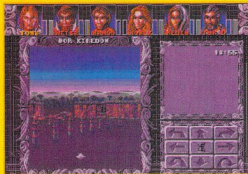
However, that could be about to change. Recently computer RPGs have come along in leaps and bounds, and *Ambermoon* continues that trend by offering lots of innovative features.

Ambermoon is being developed by Thalion Software, and is the sequel to the acclaimed *Amberstar*. In that game, the objective was to defeat the evil Tarbos and return the land of Lysimion to the nice, flowery, pretty and by all accounts dull place that it was before. Tarbos was imprisoned in an asteroid and blasted off into orbit, or something.

This time you play the grandson of the

ON THE Drawingboard

1



Dave Cusick fights hordes of foul beasts and treks through the wilderness for days on end - and that's just his journey to work



character from the original game, and Tarbos is back again. Apparently his meteor collided with Lysimion, although that sounds like a rather contrived way of re-using the original baddies in the sequel to me.

Now Grandad is somewhat past peeping out of his comfortable old television-side armchair, and leaving behind a life full of soap operas and telephone calls to our Trevor and all the rest of the family. He is, in fact, so old that he decides instead to dispatch you to deal with the threat.

The game control system is similar to that of *Dungeon Master*, although the designers are quick to point out that there the similarity ends. While some sections of the game do feature the same first-person perspective view, others use a top-down view, similar to that used in games such as *MegaTraveller* but far more graphically pleasing.

STATISTICS

One of the most important aspects of any RPG is the character creation process. In *Ambermoon* your character has oodles of statistics, not just the standard D&D ones. It's this attention to detail which makes *Ambermoon* so appealing.

A common stumbling point for RPGs is the handling of combat situations. In *Ambermoon*, fighting sequences are conducted from a separate combat screen which features nicely animated monsters and controls, designed to make the whole procedure as smooth and playable as possible. Combat takes place in real time, and there is a heavy strategic element that must be mastered to succeed.

Weapon-wielding has never been so much fun, either. There are plenty of nasty-looking bits of metal which you can use to maim and mutilate your foes.

The game also features over 100 spells, which will delight those of a magician-playing disposition. All of them feature gorgeous animations, some of the most stunning being the fireball and lightning bolt-type spells.

There are hundreds of locations to lose yourself in and all in all it looks like *Ambermoon* should be quite a stunner which will keep RPG fans happy for literally months on end. I for one can't wait for it to appear on the shelves.

AMBERMOON





Anyone for a cup of tee(pee)



My character proves his popularity with the ladies



This is the character generation screen. As you can see you can create some right horrors

LEGENDS of VALOUR

Have you had enough of meeting up at the Adventurers Guild? Have you had enough of meeting two dimensional characters at the tavern and talking superficial rubbish? If so don't turn your back on the D&D world, just take a stroll with us down to Mitteldorf



There won't be many of you out there in garter territory who haven't donned the garb of a sturdy paladin or some arcane wizard.

I bet we could count the number on one sword. Everyone who owns an S1 and likes playing games is bound to have at least mounted one sortie into the lands of dungeons and magic.

The main problem with this sort of role (normally called RPG) is that they're damned frustrating.

The first thing you've got to do is sort out your party of do-gooders, and the only place you can do this is at the local

Adventurers Guild. This, as I'm sure you're probably aware normally turns out to be the local tavern.

Why this particular location is the centre for adventuring is beyond me. Although it's worth pointing out that where I live just going in your local boozier can be quite an adventure.

Anyway, you can just imagine going into the Sheep's Sweetbread to choose your fat squad that's going off to sort the country out.

Will you choose the master magician who had a couple too many gins and is letting off the odd fireball around the lounge, asking if anyone would like to have their

food flambéed? Alternatively you could quiz the barbarian about questing. But he's 15 pints of bitter into the night and trying to master the quiz machine. He's just spent nine quid and is still having problems co-ordinating between the A, B and C buttons, let alone read the questions.

Maybe you'll make a bee-line for the gallant knight. He sits there cross legged sipping on another glass of Lambrusco, pouring his heart out to anyone and noone about the tragic demise of his latest page-boy. He wipes another tear from his blood-shot eye and burbles how it'll never be the same now Roary's gone.

By now you're wondering if anyone's any use to you in this establishment, and then it hits you in a blinding flash. What about the dwarves, they're always a sturdy bunch in role playing games? Then you notice that there aren't any in the bar. Strange, you think, until that is, you hear a noise coming from outside.

Straining your eyes you see them. Seven dwarves all beaming seven shades of orc manure out of each other. Then you remember, it's always the little ones that cause the trouble.

By this time you're wondering if there's anyone of goody intent worth talking on the miserable quest. Straining your troubled grey matter you dig deeper into the recesses and try to pull out some more stereotypes from Tolkien's world. Then it hits you, priests. Surely they won't be blod-

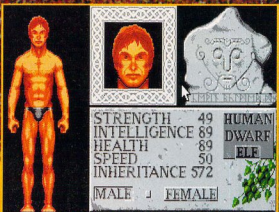
dered the night before an adventure? Looking around this smoke-filled room you notice that there isn't a priest anywhere to be seen. Down at the abbey? Praying in the local church? Maybe even marrying someone?

Inquisitive to the point of despair, you once more turn to the barkeep. Where's the priest you plead? Upstairs with madame Lola, the devastating answer that greets you. The Elves? In the toilets measuring. The Valkerie? Gone up to her room for a shave. The Ninja? Shopping. The Thief? Gone straight. The Crimson Pirate? Gone the other way. By this point you've had enough, turn from the bar and leave. It's this kind of frustration that renders role playing titles a bit of a drag.

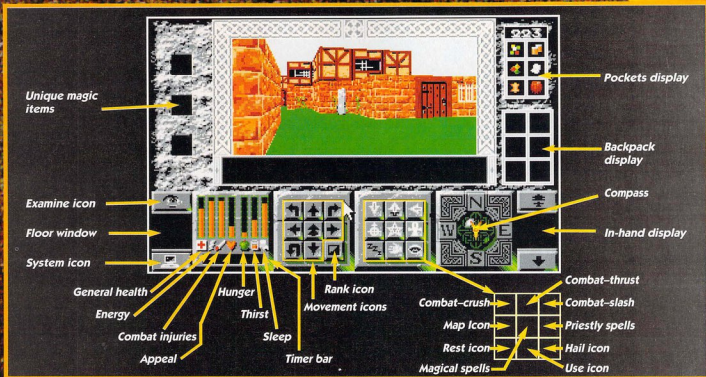
Too many stereotypes in the characters with little or no personality of any depth. Most RPGs have an astounding similarity to one another which follows a very standard formula.

This recipe fuses a potential world dominator, who wants to do something dumb like making it cold for a million years, with a bunch of stereotypical do-gooding chinless wonders.

Said chinless wonders then go on an endlessly boring treks through monotonous 3D environments, beating up a host of goblins and skeletons to build up their own dimensional antibodies to make them even tougher. As usual, there'll be a collection of useless artifacts to collect which go together



Hey, check out the kinky devil in the tight pants



to solve some totally illogical sub-plot.

For example, collecting the stuffed lycuna and placing it next to the worms of the dood Gorgan while blowing on the horn of verily, while the wizard casts a create emuch spell while the dwarf rubs the simulat of incompetence, causes a door to open.

The point of this is that while this type of romp is fine for the occasional journey of fantasy, you soon become accustomed to the plots and the very simple interactions that the characters make with each other.

EXCITEMENT

The main problem with this genre is that you never quite get deep enough into the lives of your do-gooding campaigners.

This being the case, you always feel left with a desire to involve them in more normal activities like going shopping or getting a job - not!

So, when Legend of Valour winged its way to Gamer's lowly dungeon it was greeted with some excitement. Despite the earlier cynicism LOV promised an RPG with more than the norm.

For one it features an interactive town where it was going to attempt to cast aside the chains and break the cliché of the stereotyped band of do-gooders. A town in which you can do almost anything, except for looting around all day twiddling with your com-

puter. Legends of Valour starts when you receive a letter from your long lost cousin Sven. He's writing to brag about his new life in the city of Mitteldorf.

He tells tales of bustling streets and bowdy nights. It all seems so exciting compared to gloomy Wheatdale and the boring farm where you have to exist.

Sven goes on to talk of adventure and of creatures that dwell beyond the reaches of Mitteldorf. He also encloses a copy of a book which talks in depth about these denizens of the night.

Hearing these tales of adventure makes you restless beyond toleration. With adventure and dreams of making your fortune high on your mind you set out for Mitteldorf.

The first interesting aspect of LOV is the character generation screens. In these you are able to pick the sex and race of your character. For instance you can step into the shoes of a rather squat dwarf like person, be humanish or even be one of the Elven folk.

Also, you can determine the very appearance of your character. You choose everything about your adventurer from the curliness of their locks down to the size of their nostrils.

Once in the city you are free to roam around and get on with the people of Mitteldorf. You are given a map which roughly lays out the city by street but

GAMER GOLD

doesn't let you know all the locations. That bit is left to you to sort out.

So just like in real life, you find yourself in a strange town with no roof over your head and no job to go to. And this is where the fun starts. The people of Mitteldorf are fairly friendly so it's quite easy to start finding out information and locations.

The world that US Gold have created has a real feel of realism about it. Throughout the whole scenario you can do almost anything that you would expect to do in a real town. There are a vast number of shops and hostilities to transact in. Also, there are many people to talk to, all having their own personalities.

Below the surface of life in Mitteldorf there exists a political and religious system which differentiates people and adds an extra dimension to life in the city.

You can also get yourself into trouble with the local constabulary because LOV comes equipped with a complicated legal system.

Graphically Legends employs a fairly unique system in which to move your leather clad hero around. The town is represented in some detail because it was created in a true 3D style. If you walk towards a door for example it gets larger and you get closer, until you reach it and then it can be pushed open to reveal another location.

LOV uses your beloved mouse to control absolutely everything and believe me, there are plenty of things for your mouse to utilise.

Whether it be trading or talking it's all catered for in a most user friendly manner. Your character also has some interesting characteristics which must be maintained to remain fit and healthy.

You have to be careful to feed and water your character. You must also sleep well and be especially wary of taking too many wounds from the bad asses because

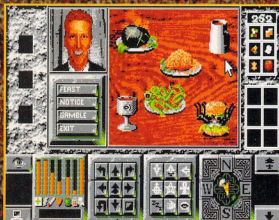
you're not too tough. Obviously there's a lot more to Legends than just tootling around the town centre. It has every element of the more traditional RPGs like a full range of trolls and lizard men to quest against.

Just like you'd imagine, you can't go off scraping these beasts without a full range of weapons and magical paraphernalia.

Legends of Valour is a very in-depth adventure scenario. It looks great, plays well and has a massive amount of involvement for you to lose yourself in.

It's worth every gold piece of the money asked, and will make a welcome change for all of you out there who are sick to the back teeth of wandering around the same old locations doing the same things.

SIMON CLAYS

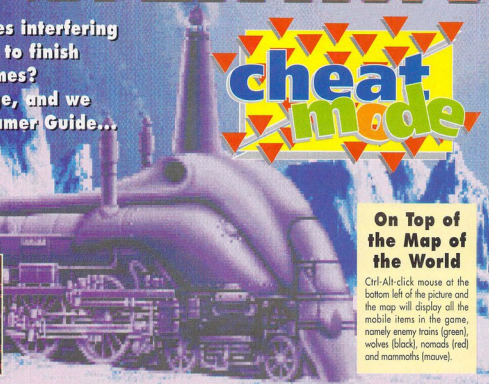
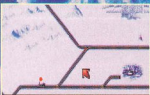


Err, I'll have a Big Mac, large fries and err... a shake

VISION	
●●●●●●●●●●	●
AUDIO	
●●●●●●●●	●●●●●●●●
DIFFICULTY	
●●●●●●●●	●●●●●●●●
LASTABILITY	
●●●●●●●●	●●●●●●●●
At last an adventure game that tries a little harder to generate a bit more realism. Smart graphics and clever interactive play make Legends of Valour a must for everyone. Even if you've been on a million different quests, LOV should prove refreshing.	93%
Publisher > US Gold	
Developer > In House	
Disks > 3	
Price > \$39.95	
HD Install > Yes	
Size > 1 meg	

TRANSARCTICA

Sub-zero temperatures interfering with your ability to finish strategy games? That'll soon change, and we uncover the latest Gamer Guide...



cheat mode

On Top of the Map of the World

Ctrl-Alt-click mouse at the bottom left of the picture and the map will display all the mobile items in the game, namely enemy trains (green), wolves (black), nomads (red) and mammoths (mauve).

To have a hope of winning, you will need a crane, a missile launcher, a big watch-tower, quite a few machine-guns and plenty of soldiers. Buy the Driller wagon in Rhum (references $x=61, y=11$). For this you must have some slaves and a few girders because you will have to build a bridge to get to it.

Go back down through the whole map until you reach a track-ending located at $x=32, y=67$ (corresponding to Hoggart). Put the Driller wagon at the front or the rear of the train. Then cross the track-ending and a passage will open up through the mountain. Carry on westward and you will reach the Oasis where you will pick up a key.

Go to Baku ($x=93, y=42$) and buy a wagon-wagon there. Set off westwards again and take the network leading to the track-ending at $x=39, y=32$. Cross it. The track will continue. Beware - there are lots of dead-ends.

To mark out the route you can send rail-

cars out on invisible tracks. At the end of the maze you will reach the mammoths' graveyard. Note the five-figure number inscribed on the mausoleum.

Go up to the north-west again, to the Loch Ness bridge (references $x=11, y=10$). Kill the monster using the harpoon wagon. Carry on and stop in front of a complex network of tracks going eastwards.

You must reach reference point $x=34, y=4$, but beware, the tracks are full of mines. Send out rail-cars. They will blow up the mines and reconnoitre the way through. You can take routes with ruined tracks by repairing them or find the one points-switching combination which enables you to reach the track-ending without repairing the tracks.

You reach the sentry-town. Enter the code which was inscribed on the tomb in the mammoths' graveyard. You will obtain a Geiger counter.

The Geiger counter will be kept round the neck of the general in the headquarters. The

needle will be positioned according to where you are located. You can enclose the zone where the needle shows the maximum - it is the frame $x=61$ to 70 and $y=16$ to 28 .

Send a spy into the centre of this zone, near a forest, at the precise reference points $x=65, y=20$. Once there, the spy will send you a message indicating that he is inside the enemy factory of Tchenobyl. Make your spy blow it up. The passage to the Himalayas will then be freed. Set off for the

town of Omsk, far away to the north-east. At one point you will cross a drawbridge (references $x=110, y=33$). This bridge is open between noon and 2pm. Wait for mid-day, then launch the train at full speed to get across the bridge.

It isn't easy to reach Omsk. Try to mark out the right route on the general map of the world. Just before Omsk you will be attacked by a pack of wolves. In Omsk, buy a cauldron.

All you have to do now is climb the Himalayas. Pass the track-ending at reference points $x=15, y=68$ after a long journey through the mountains - take on plenty of coal because fuel consumption is high.

You will find yourself face to face with the Minotaur, the main enemy train. It's worth your while to have several military arguments to confront it with. If you win the day, continue a little way to the end of the line. A surprise awaits you in the heart of the mountains...



Finding your way about town

Towns are grouped into several different classifications:

Commercial towns: Kuwait, Babylon, Helsinki, Copenhagen, Gorki, Krasnojarsk, London, Amsterdam, Kiev, Saratov, Paris, Turin, Sebastopol, Istanbul, Granada, Tunis, Athens, Marrakesh, Iououden, Tibesti, Djirgalanf.

Information towns: Bayreuth, Machad, Rome, Alexandria, Mont Saint-Michel, Delhi, Canossa

Factory towns: Salah, Rhur, Omsk, Gdansk, New Peking, Rhum, Baku

Baracks towns: without spies: AbuDhabi, Tashkent, Moscow, with spies: Sparta, Berlin

Mammoth fairs: Casablanca, Bhopal, Temir Tau

Slave Markets: Selov, Luxor

Factory Towns

This is how the products are distributed:

In Salah: Bio-degradable tender-wagon, small goods, machine-gun, tanker, small prison, small barracks, livestock wagon.

In Rhur: Small watch-tower, large barracks, large goods (XL), tanker, tender, large prison (Alcastraz), crane, oil-tanker.

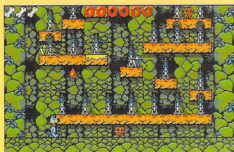
In Omsk: Cauldron, tender, small barracks, large prison, small goods.

In Gdansk: Missile-launching wagon, large barracks, small barracks, cannon, machine gun, deluxe "Spy" wagon, livestock wagon.

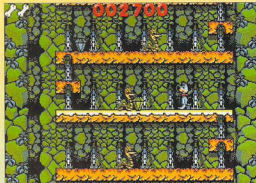
In New Peking: Large watch-tower, tender, large barracks, small prison, large goods, cannon.

In Rhum: Mountain-digging wagon

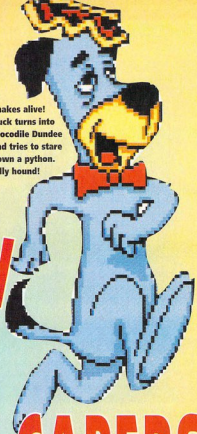
In Baku: Harpoon-wagon, bio-degradable wagon, refrigeration wagon, deluxe "Spy" wagon, oil tanker, tanker, tender, livestock wagon.



Colourful platform bouncy fun all under a tenner courtesy of Alternative Software. You lucky, lucky, lucky people!



Snakes alive!
Huck turns into
Crocodile Dundee
and tries to stare
down a python.
Silly hound!



HUCKLEBERRY HOUND in HOLLYWOOD CAPERS

If you're going to do a cutesy platformer then it's always a good idea to have a cutesy cartoon character as the star of the show. One company which always seems to bang out a damn fine platform-'em-up is Alternative Software. Original games at budget prices could well be their motto.

Over the last few years we have seen Scooby Doo, Postman Pat, Pixie and Dixie, Thomas the Tank Engine and The Munsters all put in star appearances in Alternative's range of budget games.

This series of software might not be as flash as full-price efforts from larger companies, but all the games seem to have a tremendous amount of playability.

Huckleberry Hound is Alternative's latest platform entertainer about to sing and dance on to your ST screen. I have never been that fond of Huckleberry because he never seemed to do anything funny apart from sing "Oh my darlin'" at relevant intervals. Even that wasn't that funny.

In this platform-'em-up, Huckleberry's latest movie epic has won a glittering array of Oscars at a recent award ceremony (how he won, I don't have any idea). Unfortunately, they have been stolen along with a collection of fake diamonds by a mischievous chimp, Wee Willy.

BLOCKBUSTER

The cheeky monkey has then, in a highly humorous cartoon kind of way, scattered them all around Cartoon World. Huckleberry Hound, or Huck as he is known to close friends and family, has the task of tracking down all the diamonds as well as the Oscars.

He knows that the diamonds are needed in his next film, so he must find every single one before he can prepare for his latest blockbuster.

It is your job, via the joystick, to help him through several different cartoon worlds. Each has six levels, the sixth being a bonus one.

Huck's task is to collect all the diamonds located about each world. Only when this

has been done will Huck be able to collect his Oscar.

To make your task harder a number of baddies and dangerous objects reduce Huck's energy level. The energy level meter is represented by three bones. Each bone equals one life and obviously once you lose all your bones then the immortal words of "Game Over" will appear in front of your eyes.

You must also be wary of the terrain on which Huckleberry steps, for some areas have been designed for special cartoon stunts.

Ground that looks safe can give him a nasty shock, flip his world upside down, whisk him to another area of the level, sink him, make him slip, glue him to the spot, let him sink, make him dizzy and numerous other effects that may be helpful or not to his quest for retrieving the Oscars.

Later on in the game some of these stunts areas are controlled by switches, but what you don't know is what area is controlled by which switch! To help Huck there are idols and hearts to be collected. The idols surround the hound from the south with green stars, making him invincible so

Alternative Software link up with Hanna-Barbera to bring a platform romp featuring the hound with the southern twang. Oh my darlin'...

he can get past his enemies unharmed.

Hearts surround Huck with red stars while he is being awarded an extra life. Huck can gain extra points if he collects the diamonds in a strict colour order, this being red, followed by green and then a blue.

The last scene at each filming location is a bonus level which doesn't contain any baddies or stunts. All you have to do is get Huck to collect as many bonuses as possible in 30 seconds.

The graphics are not amazing, but they do to the job. Although sometimes the background colours tend to disguise the platforms and diamonds, which makes the game slightly confusing.

There is a mere sample of sound effects and a fairly nondescript tune plays before you start the game. Maybe a rendition of "Oh my darlin'" might of been worth including.

The gameplay is very basic, but you have to remember that it is aimed at a young age group. It maybe basic, but in parts it is a really tough platformer and I had trouble trying to get off level two!

Huckleberry Hound will appeal to the younger generation, and seeing as though it will only cost you a penny under eight quid, I have to say that it is a bit of a bargain.

While I find it hard to knock Huckleberry Hound, it is very basic and even younger children might tire of the gameplay easily. Another good piece of software from

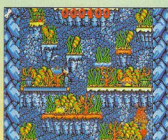
Alternative though and it just goes to show that you don't have to spend the Earth to get a high quality ST product.

JONATHAN MADDOCK

VISION	
GGGGGGGG	●●●●●●●●
AUDIO	
GGGGGG	●●●●●●●●
DIFFICULTY	
GGGGGGGG	●●●●●●●●
LASTABILITY	
GGGGGG	●●●●●●●●
Nice original game topped off with some good-looking graphics. Might get a bit difficult for the very young gamer, but for the price well worth having a look at	80%
Publisher > Alternative Software	
Developer > In House	
Disks > 1	
Price > \$7.99	
HD Install > N/A	
Size > 1/2 meg	



Diamonds are forever! Huck picks up yet another jewel, if he collects a few more he can forget about this computer game lark forever



The hound is on to level two and attempts the sea level. Now how about a nice spot of deep-sea fishing?

LAMBORGHINI CHALLENGE

Close your seatbelt and fasten your eyes, Simon Clays' in the driving seat of a Lamborghini Diablo and raring to check out whether it'll outpace his 2CV

ON THE Drawingboard

2

Cars have always featured very heavily in the minds of young boys masquerading as grown men. How many of you, as you approached your 17th birthday, tossed at night dreaming about that Escort Mark II and its tremendous pulling power?

That trim boot spoiler that slows down the 35 pure horses of power that lie snarling beneath your tiger-striped Ford bonnet?

That tasty Richard Grant all-road body kit that lowers the drag co-efficient by sod all, but labours that throaty 1.1 engine to the absolute limit?

Who can forget that suspension, infested and rotten with steel worm, but jacked up beautifully to reveal a 2000 Watt ruby red underlight that glowed away like a beacon, attracting the ferrous teeth of the metal munching invertebrate?

Moving on to the interior, it's difficult to ignore that sporty phallic gearstick, those orb-like dials that pulsate as you cut through the air in your mind's eye's lady killer.

What about that powerful Harry Mas-in-car reel-to-reel system, the size and weight of a breeze-block with only three tapes available: Queen's Greatest Hits, The Beach Boys and Roger Whittaker's 'Dirty ol' Town. More breathtaking than that was the awesome

tiger-striped fabric interior which had been impregnated with Stud aftershave and rhino pheromone.

All this in your dreams to gain the attention of an equally sporty girlie who will oblige and come out for a drive and then spend half an hour swapping spit on your synthetic feline covers.

You might think this has little to do with Lamborghinis, but it does. Those same desires that reared their ugly heads in the sordid minds of Britain's adolescent males are a twin exhaust deeper within the minds of the male buyers in the Italian car market. Fair enough, the Lamborghinis has marginally more class than the Escort, but it's still a male twinky on wheels.

Such is the main reason why games houses choose this type of car for their releases. They're fast, sporty and full of thrills and spills. Let's face it, who the hell wants to play a racing title which features a 2CV?

Subsequently, Titus have chosen the Lambo Diablo as opposed to the 2CV or the Ford. Challenge picks up where the Crazy Cars series left off.

This in some ways is a poor stable to come from. The original Crazy Cars was dreadful, as was the its sibling sequel. However, the third CC broke the mould and surprised everyone by getting amazing reviews.

ILLEGAL RACE

So, Lambo challenge is set to pick up in the skid marks of Crazy Cars 3. You will play an entrant in an illegal road race across various American states - very Gumball Rally.

Lamborghini owners from all over the globe have gathered together to compete in the contest. However, Uncle Sam is none too pleased seeing his highways transformed into Santa Pod and has set up speed traps and road blocks. The law also have souped-up motors. They will do their utmost to catch you by any means available so that you can lock you up.

But before each race it's time to pop into the local shebeen (dodgy

drinking den) for a sour mesh and a gamble on the forthcoming event. Be warned now though, it'll be unwise to bet all your hard-earned loot on the outcome of the race, as you'll need some cash for spares and repairs.

The biggest difference between CC3 and its new baby cousin will be a split screen option, which will allow two-player head-to-head action.

The weather will also play a large part. Wind and rain will affect your car's accelerating prowess, while racing on ice with your foot to the floor will undoubtedly result in your other foot ending up in a ditch.

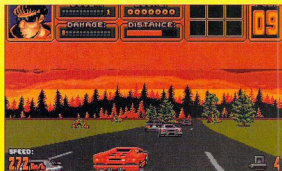
You will be able to customise your Lambo slightly by riding in the cabriolet version, so you can catch a few rays. Or as we prefer to do in the North, drive around collecting rain in the interiors of our sodden cars.

The main thing you're going to get from Lamborghinis is pace. CC3 was a speedy product to say the least, but with the new split-screen mode it was expected that the Lambos would slow down considerably.

Thankfully this will not be the case. In fact the opposite is true - from what has been demonstrated so far it seems to play faster.

Things seem to be looking hunky dory for this, the fourth driving title from Titus, and release looks set for the end of the year.

So, if speed strikes, a master and slave sunstrip and screeching away from the lights is just your speeding ticket, look no further than Lamborghini Challenge.



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War in the Gulf



The big scene

When you first start to play *War in the Gulf* it all looks rather complicated. There are four windows on the screen, and you have control of up to 16 tanks.

People who just pick up the game find that they kill tanks on their own side before they even meet the enemy. It's therefore important to get used to the feel of it before expecting to beat the hell out of the opposition.

The best way to do this is to play the demo scenario, and make sure that you follow everything that goes on. Within half an hour, you'll find that the control mechanism is surprisingly easy and intuitive to use.

There are a few general points to remember when you are playing the game. M1 tanks have much more armour than any of the other vehicles on your own side, so ensure that some of your units are entirely made up of M1s.

These should be used for raiding missions, with the very powerful TOW missiles available on your other vehicles kept further away from trouble. This makes sense, because the TOW missile has a range of about 4km.

If you find that the opposition are destroying you too easily there are a number of things you can do.

If you use your Engine Smoke, then that will make you a much harder target. The Iraqi vehicles have very inferior infra red imaging, and so will have no firm target to shoot at. There is nothing to prevent you from using engine smoke most of the time, so keep it turned on as much as you want.

This may mean that you need to use infra-red imaging, particularly if your view is obscured by clouds of smoke.

Normally the opposition unit which is firing at you will be marked on the map display, so as soon as you are receiving incoming fire, try and identify where it is coming from. Once you've been spotted it's often more effective to destroy

the opponent than to turn away!

Use the areas of forest, particularly the tree line, to move in if you can. If you move your vehicles just inside the areas of forest on the map displays, then you will be able to survey the battlefield while receiving "terrain protection". Your vehicles are camouflaged and often the opposition will not be able to spot you against the tree line.

Note carefully the aims of the forthcoming battle, and work out a provisional strategy before you start.

Playing the game

Failaka Island

Battle 1

Choose the top left-hand battle area to start. The aim of this scenario is for the player to track a convoy heading from a chemical weapons store in the northern village to a warehouse in the southern village.

Then all that is needed is for the player to destroy the two buildings concerned. So, head one group down the main road to the northern village and another group diagonal-



ly across country to the village in the south-west.

After a few minutes you will spot a group of vehicles leaving the warehouse in the north (it is the most north-westerly building in Az Zar). You can then destroy the building, but leave the vehicles.

Your unit in the north should now be used to stop any Iraqi forces re-entering Az Zar. This is quite simple, particularly if you use your engine smoke.

By the time your other unit reaches Saad Wa Saeed in the south (lay up on the edge of

a nearby tree line, or you'll get shot at frequently) you should have just enough time to spot the convoy turning into the second warehouse from the south of this village. Destroy that warehouse (not any other) and you've won!

Battle 2

The battle area in the top right of Failaka Island can be accessed next. The aim here is to get all of the Iraqi forces out of the archaeological site of Ikaros at the centre of this area.

Then you must ensure that no forces re-enter. Finally you must locate a group of Gaskin missiles in the north east of the area.

One grave complication about over-running Ikaros is that if any building are destroyed, you lose the battle. To avoid the





Great shot! Right on target.

Iraqis taking pot shots at you (and thereby causing potential collateral damage) you could well attack them from very long range using TOW missiles.

If you do this from far enough away, you will find that you can destroy the forces in Ikaros without any shots being fired back. Now, the best way of preventing a further re-occupation of the site is not to stick your forces in the middle and wait for a response.

That way there certainly will be collateral damage. So it is best to set your forces on the edge of the forests surrounding Ikaros (maybe three groups), and await to ambush forces as they try to re-enter.

In the meantime your fourth unit can search for the missile site which is to the north east of the most north-easterly forest in the area. In all, if you hold out for 30-32 minutes from the start of the battle you have won.

Battle 3

The final battle area of Failaka Island is the south-easterly part of the island. You have to provide protection for a group of support vehicles which will arrive at the southern village of Failaka after 16-18 minutes.

Before this you should have cleared the road to the north from the village. Another aim is to destroy the helicopters in the northern airfield.

To clear the northern road, send three of your units to the forest edge opposite the three locations where you have been told there are Republican Guard blocks.

When all three groups are in place launch a simultaneous attack on the three road blocks. It should be quite easy to destroy all three units. Now, use forest cover

to take two of your units south to defend the convoy in Failaka.

If you place one unit to the north west of the village and one unit to the east of the village, you should be able to provide satisfactory cover.

At some point your fourth group will have to launch an attack on the northern airfield. Set this group up in forest cover opposite the middle of the airstrip, and aim to destroy the attack helicopters in the middle of the strip as soon as you can.

If you have any difficulty with a counter-offensive launch as a result, your third unit should be free to help.

Bubiyan Island

Battle 4

The first battle on this island is relatively simple. You must take all of your troops over the bridge, and in the process destroy all of the groups defending the bridge area.

Then you must await attacks from the south, while ensuring that all of your forces are hidden from view of the troops from the south. Set two units in the camouflage of the forests just to the north east and north west of the bridge. These should be able to dispose of any southern troops.

The other two units should then try and attack the police post in the north. The best route to take is to veer to the west, using forest cover to come into the post at close range from the west.

If you have destroyed all of the opposition at the post, then you will win if you hold out at the bridge for 30 minutes or so after the start of the battle.



Battle 5

This is quite a tricky battle to get correct! You must protect a convoy which is plying the road from north to south and back, from attacks from the west of the battle area.

With four units, your best approach is to put each unit at a roughly equidistant position from north to south to defend the convoy. You can provide adequate defence by standing still, so don't try and escort the convoy. The units should be to the west of the road, on the eastern end of the minefield.

You are now obliged to keep a very close eye on marauding attacks from the west. If you keep aware of any activity on your map display you should immediately respond. It is also fruitful to just scan the battle view, to keep an eye out for enemy activity.

If you are aware of the position of your convoy, and so are able to note where the most danger lies at any moment, you will be able to provide protection without losing any vehicles. It can certainly be done!

Battle 6

You have a series of objectives in this battle. Firstly, you must prevent any breakout of Iraqi troops to the east, so position one unit at the eastern-most end of the east road, and

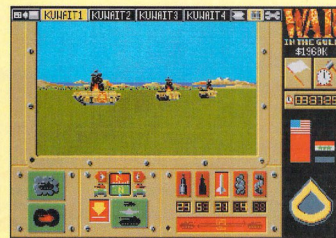
make sure that all activity on the road is stopped.

Secondly, you have to search for two vehicles hidden in two separate buildings. In this battle area each forest has a building to the south of it. Now, there is no need to destroy a building to find it there is a tank inside - you can use the infra-red sensors, which will tell you on a quick scan.

This will prove very useful, because half of the buildings will cost you money to destroy, and the last thing you can afford at this stage is to lose money. On the other hand, make sure you do destroy any building (radar tower, satellite dish or comms tower) that will gain you money - you will need it all!

You will just have to search every building in the area for the hidden vehicles (note that they are randomly hidden in different places every time you play). If you keep to the edges of the battle area as much as possible, you will avoid a proportion of enemy counter-attacks.

Once you are ready, make sure that you can reach the rendezvous point at the designated time. The location is just to the east of the most southerly forest. If you happen to destroy the three radar towers before the end, then you will make even more money!



REPLAY 16

At last, a low cost 16-bit sampling system for the Atari ST, featuring full 16-bit input and output in the same unit. The system comes complete with a sophisticated sample mixing/editing program, superb digital Drum machine program, and a powerful MIDI keyboard emulation program which gives the user the ultimate in MIDI sample control.

HARDWARE - The 16-bit sampling unit plugs into the cartridge port of the ST. Audio connections to and from the sampler are provided via standard Phono connectors. An Input volume control is also provided.

SOFTWARE - EDITOR - The sample editor is a highly flexible WIMP style program which allows conversion or editing between any AIFF format 8/12/16-bit. Mono or Stereo samples. Sampling rates of up to 48KHz can be used, but the program can re-synthesise samples to practically any other speed.

- Features include:
- Volume control
 - Digital filtering and 3D frequency analysis
 - Cross fade looping



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The system runs on any ST or STE with 502K (1Mb min is recommended), and comes complete with hardware, software and comprehensive manual.



Product	Price	Order No.
Replay 16	£99.95	7156

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ProPunter 2 + 11Mb ram	£49.95 RRP £75.00	7232

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- Animation, Font/Speedo GDOS support, wide variety of file formats including IFF, TIFF, GIF, JPEG, Targa, IMG, Neochrome and more
- Extensive and informative 170 page manual



Product	Price	Order No.
TruePaint	£37.95	7250

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The Ultimate Multi Media System for your computer. Videomaster is a revolutionary breakthrough in home computer technology combining the complexity of a Video Digitiser with a Sound Sampler in a single easy to use low cost unit, to bring you the ultimate home multi media video/audio editing package.

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Videomaster features a sound sampler as part of the hardware, though the software can be used with external sound samplers. This is supported by a full feature sound

recording and editing program within the videomaster software. The Videomaster system also features a video sequencer.

The complete package contains the Videomaster video digitising and sound sampling hardware unit, TBI-Colour filters for colour camera use, comprehensive user guide and full system software.

Videomaster will work on any standard Atari ST with at least a single 1Mb floppy disk drive and a colour monitor. At least 1Mb RAM is recommended. RRP £69.95, save £15 with this offer.



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Videomaster	£54.95	9107

ALFADATA 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.



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AlfaData Scanner	£115.00	9269

BOOKS

Spreadsheets, The Easy Way – This flexible book enables it to be used with almost every major spreadsheet package on the market. It has easy step by step instructions for beginners, a how to section for reference purposes and so the book is suitable for ALL computer users

Atari ST Explored – This is probably the most comprehensive guide available to Atari GEM operating system and main ST/STE languages. The text is liberally illustrated with diagrams and examples making it easy to follow and understand.

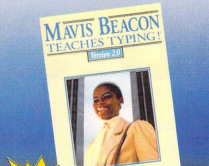


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Video stars

Over the past couple of years there has been much debate in the music world over the usefulness of video manuals. As musical instruments get more complex and manuals get larger, many people feel a video would offer an easier introduction to products. This goes doubly for music software.

Labyrinth have taken the case to heart and produced not one but six manuals for various pieces of software and hardware with another five in the pipeline. We'll take a look at the Cubase and Notator manuals this month and at the Breakthru one next month.

The Cubase manual runs for an hour and a half and is presented by Chris West who runs a studio. Until recently he was in charge of Steinberg software at Harman.

It's aimed very much at the first time user, both of the program and of computers. Cubase is also available for the Mac and PC and the video spends the first 20 minutes running through the installation routines for all three formats, even discussing computer basics and functions such as mouse movement.

Chris explains basic sequencer concepts such as tracks and patterns and basic functions such as copying and pasting. Later on he delves briefly into the four main edit pages - Score, Key, List and Drum - although again, only the

basic functions are described. Chris doesn't seem to be reading from a script so the presentation is not flat as it might have been. It does have a certain loose feel to it.

The camera shows close ups of various parts of the screen when required, it moves from the screen to Chris now and again and there are a few video tricks thrown in for good measure.

The Emagic Notator video runs for 2 hours 20 minutes and is presented by Tim Walters who runs a music production company. He makes an excellent presenter with a light approach although the voice quality, certainly at the beginning of the video is a little "blowy".

REWIND BUTTON

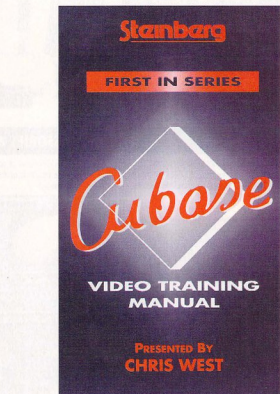
Again, the script is rather loose; a little more preparation would have ensured a tighter presentation. Also, Tim has the rather annoying habit of repeating his explanation of some functions - completely unnecessary if your video has a rewind button!

As with Cubase, it's impossible to cover Notator in depth but this video does manage to cram in a lot of information. However, Tim still waffles around basic mouse and computer functions. Are these really necessary? If the viewer doesn't know how to use the computer, Tim's efforts will be of only minor help.

The video comprises a 15-minute introduction and the rest is divided into 28 tutorials. These cover many of the main functions of the program - everything from basic recording techniques to the use of Unitor and SMPTE to synchronise to tape and video.

There's a section on polyphonic staves, a much misunderstood area of Notator, plus a section on the use of fonts which is another topic many users don't fully understand.

We delve slightly into the Process Note Attributes and Midi Meaning pages. These facilitate



the adding of music instructions such as staccato marks to notes and the subsequent applying of reduced gate time to reflect the instruction.

Tim also covers Arrange mode and Graphic Arrange Mode and there's a quick look at the Hyper Edit screen.

A lot of time is spent on the Score edit page which is, for the majority of users - myself included - the major reason for using Notator. However, Tim seems to know very little about drum notation and the drum map section results in a very odd drum notation display although the principles he discusses are sound. But I nitpick.

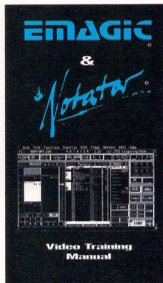
Although I've been using Notator since its initial release, I did pick up a couple of hints from the video. It covers more than the Cubase video although it has much more

time to do so. One of the problems with video manuals is that although they may be easy to watch and learn from, they simply cannot cram in as much information as a printed manual.

The Cubase video is very much for beginners erring, I feel, on the side of simplicity. But if you know nothing about the program and refuse to read the manual it will definitely get you up and running. It is actually called Cubase First In Series and there is the promise of more advanced videos to come.

The Notator video is rather more comprehensive and gives an appreciation of how many powerful features the program has. More advanced videos are promised here, too, and both videos could well find a useful home in education.

Cubase First In Series costs £34.95. Emagic's Notator is £44.95. More from Labyrinth Video Manuals, Unit P3, Roe Lee Industrial Estate, Whalley New Road, Blackburn BB1 9SU. Tel: 0254 662096.



Ian Waugh brings the latest music news, including a new book review and a look at video manuals

Budget beats on CD

Most sample CDs cost £50 although there are a few cheaper ones around. In previous columns I've looked at some which I thought were very good value for money.

Here's another one. The Mega Beats CD contains samples from 30 of the most popular drum machines - a total of over 700 sounds.

For the drum machine aficionados, it's worth listing the machines used: Roland CR7B, TR505, TR606, TR626, TR707, TR727, TR808, TR909, R8; Yamaha RX5, RX11, RX21L; Korg DDD1, KPR77, DDM110, DDM220; Boss DR550, DR55 [Dr Beat]; Simmons Kit; Linn 9000, 2; Sequential Tom; Alesis HR16, HR16B; Casio RZ1, Emu Drumulator; Akai XR10, XE8, Oberheim DBX; and Dr Bohm Digital Drums.

SILLY PRICES

OK, so you need a sampler and a lot of time to record and create suitable drum maps but when you consider that many of these machines are no longer available, and those which are command silly prices on the second-hand

market, the CD begins to look like a veritable bargain - even if you have to buy a sampler to use it!

Some optimistic soul was actually advertising a TR909 for £700. No doubt someone with more money than sense - and blissfully unaware of Mega Beats - bought it!

STAND-ALONE

Of course, you can use Mega Beats with the family of ST Replay samplers just as well as a top-end stand-alone sampler, and use them with Tracker type programs. It's certainly affordable. The sounds are much in demand by producers of house, dance, rave and techno music.

Patchworks also have a disc called Astro Glide 2020 containing sounds "not previously associated" with the MC202. I haven't heard this one. The CDs are an unbelievably nominal £19.95 each or £35 for the two. Mega Beats was originally released last year and sold for £35.

More from Patchworks, Frederick House, 211 Frederick Road, Hastings TN35 5AU. Tel: 0424 436674.

All that's new in music

• Anyone out there at school in years 7, 8 or 9 during the 1993/94 academic year? Well you, or rather your school, can win a Korg C36 digital piano and a 05/W General Midi sound module, a package totalling £2,500.

All you have to do is compose a piece of music to fit a short video film - a sequencer running on an ST is ideal for the task.

A course of teaching materials, the competition entry form and video are available from Oscar Music for £15. In fact, there are three piano module packages to win so get composing now. Telephone Oscar on 071-375 2716.

• Due to the increasing numbers of Midi Data Filers which can only read Midi File Format 0, the dynamic duo at Heavenly Music have converted all their 600 Megga Tracks Midi song files to Format 0 so they will now play on the likes of the Yamaha MDF2.

A starter disk is available for just £3, refundable with your first order. More from Heavenly on 0255 434217.

• Further to our look at Hands On Midi File Format converters last month, Heavenly have announced a Format 1 to Format 0 converter called MidiScope which will convert files singly or in batch mode for £12.95.

• Heavenly have released The Essential Jarre Collection - nine tracks on one disc configured for GM/GS. Yours for £19.95 plus £1.50 p&p.

• Programmers have been very careful to ensure that most music software will run on a 1Mb ST, although with some of the top-end programs such as Cubase and Notator it's useful to have another megabyte or two. The Falcon and its multimedia, direct-to-disk recording and MultiTOS could well use more than the standard 4Mb.

So if you want to take your Falcon to the limits of its memory, check out the natty-named Falcon 030 memory Expansion Board which allows a Falcon to take on up to 14Mb of RAM.

It costs £76.38 plus p&p. A fitting service is also available. For more details contact CGS ComputerBild on 081-679 7307.

Book of the Month

It's always handy if you know what you're talking about. This applies especially to writers. However, it's also useful to know what other people are talking about, too.

If you wish you knew as much about music and technology as the people who write about it, check out The Studio Musician's Jargon Buster. It's a glossary of 1,500 terms which cover the meld between music, technology and recording.

It's well laid out and presented and contains diagrams which help explain a few of the words. It has a route map in the back which shows key entries and cross references for nine topics such as Music Styles, Electricity, Recording and Synthesis. It helps you work your way through the topics to get a feel for the words you are likely to come across.

The only criticism is that some of the definitions are very techy. For example, here's the entry for Oversampling:

"The principle of sampling a signal at an integer multiple of the normal Sampling Rate. The factor can be as little as two times, although it may be much more.

"The effect is to distribute a fixed level of Quantisation to the power of noise over an ultrasonic frequency range thus "diluting" the noise in the audio bandwidth and improving the signal-to-noise ratio."

It makes you think that if you can understand the definition you wouldn't need to look up the word...

However, it's still generally a good book, up to date and very useful to have to hand when searching for information on a particular hi-tech term.

• The Studio Musician's Jargon Buster costs £12.95 from all good book and music shops or direct from: Music Sales, Distribution Centre, Newmarket Road, Bury St. Edmunds IP33 3YB. Tel: 0284 702600.



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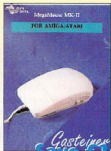
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From Version 4 onwards DOS system disks come with an installation program and this is the easiest method of installing the operating system on your ST – just follow the on-screen prompts. But whatever version of DOS you use, beware of copying one that has already been installed on another computer.

It is unlikely that any real damage will be done, but you will probably encounter a lot of confusing error messages when you first boot up the system on your ST as it works through inappropriate commands in the CONFIG.SYS and AUTOEXEC.BAT files which were intended for a different setup.

These two files are so crucial that it is worth the effort required to understand what they do and how to optimise their contents.

CONFIGURING DOS

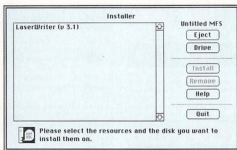
The closest equivalent to CONFIG.SYS on an ST is perhaps the AUTO folder. As you will know, AUTO folder programs are automatically executed whenever

you start the computer, and often install device drivers like hard disk drivers, GDOS and so on.

CONFIG.SYS works in a similar way and can contain a number of commands. Among the most commonly used ones are Device, Country, Buffers, Files and Shell. These names are almost self-explanatory, as they (in order of appearance) are concerned with device drivers, country-specific date and time formats, disk buffers, the number of files that can be open simultaneously and command shells to be used.

Like AUTOEXEC.BAT, CONFIG.SYS is a text file that can be edited with any ASCII text editor. Most emulators include their own device drivers to be included in CONFIG.SYS, so make sure you read the documentation carefully.

AUTOEXEC.BAT has no real ST equivalent, unless you use a command line interpreter such as the NeoDesk CLI. But as you know, later versions of TOS (earlier versions need a utility like Startgem or Headstart to do this) can automatically execute a GEM program once the desktop is



The Installer is to be found on your Mac System disks and will take care of transferring all the files required for a clean installation

initialised, and this is what AUTOEXEC does – except that it can automatically execute a whole lot of commands, one after the other.

There is almost no limit to what you can do with AUTOEXEC, but most people use it for setting simple system parameters, such as the search paths in which DOS is to look for resident commands, and changing the default command prompt to something a little more informative.

If you only reason for using a DOS emulator on the ST is to edit WordPerfect files taken home from work, you might just as well start WordPerfect automatically every time by including the command WP.EXE in AUTOEXEC.BAT.

Don't worry about Windows at this stage. If you are going to install Windows 3 later on, leave everything to the Windows installation routine which will offer to have a look at your existing configuration files and rewrite them for you. Let it go ahead, it knows what it's doing!

SETTING SPECTRE

No such configuration files are required by the Macintosh operating system. Again, you should let the Installer on the System disk do the work to ensure you have clean System and Finder files.

But remember that you are running these on an ST rather than a real Mac, so some configuration needs to be done before you even attempt to install the Apple system as Spectre needs to know about your ST setup in order to make it behave like a Mac in the first place.

By far the most important of these configuration settings concern the hard disk: while DOS partitions are generally compatible

with GEM ones, Spectre/Mac partitions are not – you cannot even read their directories from GEM, let alone format them.

There are two Macintosh formatting schemes, the newer HFS which supports hierarchic directories and the older MFS. So why use MFS, you may ask. The answer is that only MFS partitions can be accessed by the important Transverter utility (see below), hence you will want to have two Mac partitions: a large HFS for your System files and applications, and a small MFS for file transfer between TOS/DOS and Spectre.

Remember that our aim is an integrated "three-in-one" system, not just three computers in one box which cannot talk to each other.

TRANSVERTER

You may think that all that the Transverter does is to copy files from one disk format to another. True, since ordinary filecopy commands under GEM or Finder cannot read the source or target disk format,

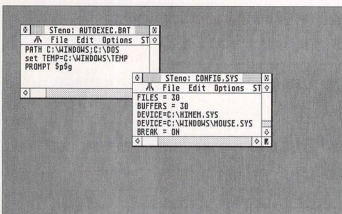
Transverter is special in that it can read from, and write to, both. But that is only one part of its task. Equally important is its ability to convert files to and from Mac file – not disk – format.

This confuses many PC and ST owners who transfer files between their machines and Macs via serial cable or modem and then find that things don't work as expected.

The reason for this is that Apple Macintosh files consist of two parts, a resource fork and a data fork. To make them accessible to other machines, these forks need to be converted into a different format, and Mac files stored on bulletin boards are usually encoded in something known as the MacBinary format.

Transverter takes care of all that, saving you the inconvenience of having to fiddle around with the Apple File Exchange, BinHex and whatever else those unlucky enough not to own Spectre GCR have to cope with in such situations.

Crucial files

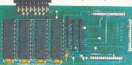


Two minimalist examples of AUTOEXEC.BAT and CONFIG.SYS configured for AT-Speed and Windows. DEVICE=C:\HIMEM.SYS installs the extended memory driver for 286 processors, so DOS and Windows can utilise the extra RAM of an expanded ST

Gunter Minnerup continues his guide to the STPCMac and highlights the obscurities of CONFIG.SYS and AUTOEXEC.BAT

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In last month's column I mentioned that the American fax software package STraight FAXI was being enhanced to support the Class 1 fax modem standard.

Well, I've now had a chance to check out the latest test version of the program - v2.00, which should be available by the time you read this - and it's looking pretty good.

The addition of Class 1 support means that the program will now work with a much wider range of modems, including the USR Sportster, Courier and Worldport modems discussed last issue.

To clear up any potential confusion, Class 1 and Class 2 are command systems, used by fax programs to control a fax modem, rather like the Hayes AT command system is used to control standard modems.

They have nothing at all to do with the Group 2 or Group 3 classifications which are often quoted for fax machines. Both Class 1 and Class 2 fax modems should be able to talk quite happily to any Group 3 fax machine. There, simple, isn't it? [No, not really]

There are currently a good number of Class 1 fax modems on the market, but only a handful which support Class 2, and even those are based solely on provisional Class 2 specifications, and they aren't BABT approved.

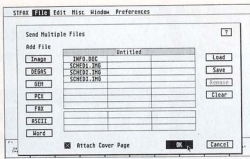
At present it appears that the developers of the main competitor to STraight FAXI (Tele Office) have no plans to support Class 1, which, given the continued lack of approved Class 2 modems, would seem a strange oversight. In the meantime, STraight FAXI has the clear edge in this area.

Other new features for STraight FAXI 2.0 include wider support for common software packages. It is now possible to create fax files from within such programs as Pagestream, Calligrapher 2 or 3, Thai's Write 2 and Calamus.

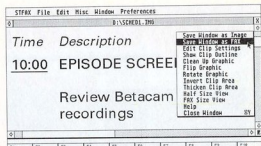
There is also a driver which will allow any application which supports GDOS, FontGDOS or Speedo-GDOS to generate fax files directly.

If you happen to be using MultiTOS (and who isn't? Oh, most of you...) then you can keep the main STraight FAXI program in memory while you run your word processor or DTP program, allowing faxes to be transmitted immediately.

This facility is currently of limited use, and would require a fair chunk of memory, but then so does MultiTOS in the first place, so



Scheduling to send multiple files, including several new file types for version 2.0



When viewing a fax or other image file, a range of clipping and saving options is now available

First class faxing

perhaps that's an unfair criticism. STraight FAXI does handle MultiTOS very nicely though - even down to the ability to iconise windows and use popup menus. Very impressive!

Without MultiTOS, you must first create your fax pages and then exit from your DTP program in order to run STraight FAXI. It will then detect the prepared fax files and send them automatically.

I would have preferred STraight FAXI to go down the same route as Tele Office in this respect, by providing an accessory version of the program which would allow for sending and receiving faxes without needing to load the entire program into memory. Such a solution would also be of use to

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Manufacturer: 570F Ritchie
Highway, Severna Park,
Maryland 21146 USA
(UK distributor to be announced
shortly)
Tel: (0101) 410 544 6943

the average ST user rather than the power user with MultiTOS, at least 4Mb of memory and a hard disk.

Other useful additions in this new release include a Quick Dial feature, which enables you to enter occasionally used phone numbers directly rather than having to store them in the phone directory system. The list of file formats from which you can create faxes is comprehensive, including plain

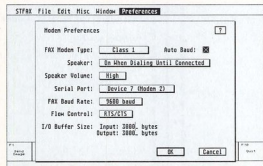
ASCII text, First Word Plus and Word Writer ST documents, Monochrome Image, Degas and PCX files - plus, of course, its own internal FAX file format.

The export file types have also been extended to support PCX and Encapsulated PostScript (handy if you have a PostScript compatible printer, but of little use otherwise). Enhanced image editing and processing features - such as cleaning up or enhancing an Fax, flip and rotate, and copying/saving a defined section - are also welcome.

Another feature I like is the ability to initiate Send or Receive Fax modes during a voice phone call. This means you can phone someone who uses a single fax/phone line and ask them to put their fax machine online before clicking on your Send button.

Equally you can gain access to remote fax servers which have the facility to send you pages when you call them. This system is often used in the States, and is starting to happen over here, to allow companies to issue current product information to anyone who wants to call in using their fax machine.

At present, STraight FAXI is only officially available from the USA, but negotiations are progressing to appoint a UK distributor. In the meantime, Toad Computers will accept international credit card orders if you wish to purchase directly.



The Modem Preferences dialogue now supports Class 1 fax modems, a big improvement over the previous release

André Willey checks out the latest beta test version of STraight FAXI! and is much impressed

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We gave you the STOS Compiler software absolutely free on last month's disk. To help you really make the most of this amazing utility, which can transform any existing STOS program into incredibly fast machine code, we can exclusively offer you the excellent manual at the ridiculously low price of £3.99.

The original well-written STOS Compiler manual includes full documentation on all of the package's features, and a comprehensive tutorial section. It also shows how to customise the compiler to take advantage of a RAM disk to speed up compilation.

● Please note that this is the original manual, not a photocopy

STOS Compiler



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The TIFF file format is always referred to as a standard but unfortunately it's something of a misnomer. There are literally dozens of extensions to the format, meaning that quite often one application can save a TIFF file that can't be read by another.

The bare bones of the TIFF format are contained within the Baseline TIFF specifications – an enormous document running to over 100 pages – but it is often the extensions that cause problems.

TIFFs are becoming increasingly relevant to ST users as more and more programs are now using them both for import and export, in line with similar programs on the Mac and PC.

If you send a photograph away to be scanned by a bureau, the chances are it will come back as a TIFF file, so it is important to understand what makes TIFFs tick, so to speak.

The current TIFF specification is version 6.0 though v5.0 is still widely used by many ST programs as well as those on the PC and Mac.

There is unlikely to be too much difference in practice as both cover a wide range of image types, from single bit mono to 24-bit colour. Although various compression algorithms are permitted, there is no data loss at all, unlike JPEG images which actually lose detail when saved.

ENCODING SCHEMES

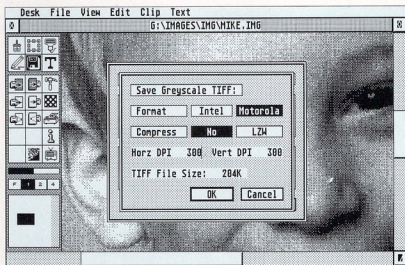
There are four main encoding schemes within the baseline TIFF spec – uncompressed, Huffman compressed, Pack-Bits compressed and LZW compressed. Two others exist but they are only concerned with fax transmission.

The standard, uncompressed and LZW compressed TIFF format can handle any number of colours while the Huffman and Pack-Bits type TIFFs can only handle mono images.

The main area of concern for desktop publishers is that an image scanned and saved in one program might not load into the DTP package.

Calamus supports TIFF import but early TIFF import modules for Calamus SL could only import uncompressed images (there may be better, newer modules available). It is also notoriously choosy,

A picture standard?



Many ST programs now support TIFF files

particularly with 16-colour TIFFs, possibly because of a poor implementation of the baseline spec. PageStream behaves well and loads most TIFFs but a bug in the import module means that some compressed mono TIFFs are reversed.

Didot Professional has its own odd interpretation of the TIFF standard – including TIC (colour), TIH (halftone), TIM (mono) and TIP (colour palette). Standard TIFF files have to be converted first using a supplied utility and even then only uncompressed 8 or 24-bit colour TIFFs can be used.

DA's Vector works in much the same way. Retouche can't import industry standard TIFFs at all, which is a bit of a bind, but its odd TIFF block export format can be read by most other programs.

If you want to use TIFFs in your work, the uncompressed format is the best choice. Uncompressed files take less time to load (the importing program doesn't have to unpack

the information) and are more likely to import correctly. One drawback is the amount of space that uncompressed images take but STZIP and the new version of LHarc can squash uncompressed TIFFs much more efficiently than normal internal compression techniques. Avoid LZW compressed files like the plague as very few programs can handle them.

TROUBLESOME

There are some excellent converters around that should manage to deal with troublesome TIFFs by loading and converting them into a different type of TIFF or another format entirely. Best of the bunch is Imagecopy 2 from the ST Club, with the German shareware program GEMView close behind.

Imagecopy is better at reading files – including LZW compressed TIFFs – whereas GEMView offers a wider range of export options.

Breaking the rules

If there's one design tip that's open to abuse, it must be the mixing of typefaces for special effects. I've covered swash characters in an earlier issue – the are special versions of characters with an extra flourish to make them stand out – but it is also possible to mix completely different type when designing a logo or simply trying to attract attention.

The golden rule is to use contrasting or at least radically different typefaces for maximum contrast, or typefaces of the same family for a more subdued appearance.

It's often useful to put a word that you don't want to be prominent in a smaller, plain typeface – the word Limited for example. Mixing two serif body text faces isn't recommended at all. The technique can also be useful if your DTP program has only a limited set of fonts and you're looking for a change.

In the same vein, it's equally possible to use different point sizes in the same word, to make initial letters or an entire word stand out. Look around and you'll see plenty of examples.

The Guardian newspaper uses a combination of serif and sans serif faces which could be useful for newsletter mastheads. Closer to home, Atari Workshop and System Solutions use the same trick in their logos. Experimentation, as always, is the key!

This month, Andrew Wright looks at the TIFF file format and documents some special type effects

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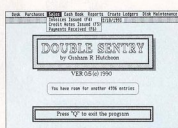
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If your business is successful and starts to grow, there is little doubt that you will reach a stage where a pocket calculator, spreadsheet and personal finance package will be insufficient for your needs.

Although nearly all of us would rather concentrate on the creative, income-generating side of our business, close financial control becomes more vital than ever as you gain more customers, cross the threshold where you must become VAT registered, and perhaps take on additional staff and buy more equipment.

Spreadsheets may be great calculating and forecasting tools, but they are not designed to show you who owes you what or what you owe to whom at this moment in time, or the precise state of your liquidity at the close of a particular working day.

Personal finance packages, while excellent for very small businesses, your family finances, or both, lack VAT monitoring and other facilities you will find vital as your business expands. So what



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3 DAVID BURGKLE	7.99	0.00	0.00	0.00	7.99
4 HAROLDY DENSON	2.99	0.00	0.00	0.00	2.99
5 JAMES FOSTER LT	2.99	0.00	0.00	0.00	2.99
6 JULIE FREEDGOOD	7.99	0.00	0.00	0.00	7.99
7 MICHAEL DREAGAN	2.99	0.00	0.00	0.00	2.99
10 HILLTON WILLIAMS	7.99	0.00	0.00	0.00	7.99
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Desk	Purchase Ledger	Sales Ledger	Nominal Ledger	VAT	Printed Reports
Trial Balance 15/07/1991					
		Debit		Credit	
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2 SOFTWARE		57.99			
3 STATIONERY		44.99			
4 INQUIRIES		32.75			
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66 PETTY CASH CONTROL				1,067.76	
		1,554.68			1,554.68

It balances perfectly after inflating the petty cash figure just a little!

People who haven't paid up yet are identified at the click of a mouse button with Graham Hutcheon's program

suits your growing empire and you personally before you're swamped with bits of information on paper which could be controlled so much more easily by your ST.

If business is growing sufficiently for you to need a full business accounts package, the investment should present no real problem, as even fully-fledged programs of this

version has been released into the public domain, you can try almost all of its features before you buy the fully functional version. Let's tackle a closer look at it.

Before my brief description of Double Sentry, here's a warning - in order to use it to its fullest extent, you really should have some basic knowledge of accounting practices. Having said that, reading a good book on the subject - one which explains such matters as nominal, sales, purchase, trading and profit and loss accounts, fixed and current assets, current liabilities, VAT, trade debtors and petty cash control - will probably be sufficient.

The real work with Double Sentry - which uses the usual GEM interface with pull-down menus - is in setting up the accounts needed for your particular business, and assigning them to categories and six key areas, which are trading account, profit and loss account, fixed assets, current assets, current liabilities and "financed by", the latter being for share capital, capital reserves and retained profit/loss.

In a growing business, you will probably need to create literally hundreds of accounts - there will be at least one, for instance, for each of your regular customers, and one for each of your suppliers - but don't worry, Double Sentry,

even on a single floppy disk system, can handle it.

Even those with 512k systems are not left out - the author, Graham Hutcheon, has written a special version for half-meg users.

Once you have set up your accounts and assigned them to the categories and areas relevant to your business, you're ready to begin entering the opening balances, and then the daily changes to accounts which, over the course of the next year, will add up to the total financial picture of all that has transpired. Don't forget to back it up at regular intervals - preferably at the end of every day.

FAST ACCESS

When you run Double Sentry, all of the data files are loaded from disk into RAM. The result is extremely fast access to data, avoiding the rather slow disk access times on the ST.

When data is added, the information is added to the files on disk as well as being held in RAM, so there's little risk of losing data in the event of a memory crash.

Admittedly, I don't run a huge concern, but I found I was able to set up Double Sentry for my business in the space of a couple evenings.

The fully functional version of the Double Sentry, with printed manual and information about on-line help and support, is available for £74.99 from its author, Graham R Hutcheon, at Finansoft, 45 Coughton Street, London W2 2BB.

If you want to try the PD version first (certain VAT functions have been disabled) contact Mike Goodman at Goodman International, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW. Tel 0782 335650, or any other reputable ST PD library.

Brought to account

should you buy, and when should you buy it? If your business is doing well and it looks like your customer base will increase further still, then becoming VAT registered and generally operating on a larger scale is more a probability than a possibility.

The advice is to start looking for a good business accounts package now, and come to terms with what you have to learn in order to operate it.

It is best to try more than one package in order to be certain you've found the one that suits you best. I know this could present problems unless you have a very warm-hearted supplier or you know other business people with STs who will let you look at their packages, but it is worth trying as many as you can, even if means having to buy more than one package.

So, if you are in the fortunate position of being the force behind a small business which is doing well and set to grow, be sure to take a look at the accounts packages on offer and find one which

kind for the ST are far from being hideously expensive. For example, Digita's System 3 comprises two programs which between them handle stock control, invoicing and cashflow control including up to 99 customer accounts and three different rates of VAT, and costs £49.99.

Double Sentry costs £74.99 and, provided you know the basics of accounting or are able and willing to learn, is a comprehensive program which gives very fast access to data once loaded.

It is an excellent package which will be of enormous help in keeping track of the finances of the growing business. And, because a

If business is going well, you may soon need more than a spreadsheet and a pocket calculator to control the finances. Start studying accounting packages now, advises Richard Williams

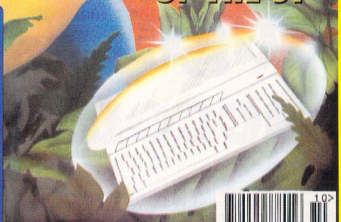
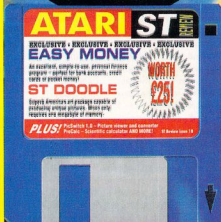
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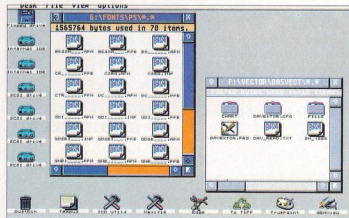


**ON SALE
SEPTEMBER 16**

Technicolor dreamtops

I must confess to having spent many a happy evening in front of my new Falcon engaged in utterly frivolous pursuits. One of the best ways to waste a couple of hours, I've discovered, is to tweak the Falcon's desktop until it looks the way you want it.

Now we all know that Ataris have graphical desktops but it was only with TOS 2.0x that we could add extra icons and even dabble in colour. Standard STs couldn't



This one's III Street Blues

offer much, of course, as medium resolution only offers two extra colours on top of black and white. The Falcon, though, is a different beast and the desktop is almost infinitely configurable, no matter what your taste in colour or style.

Assuming you're running in 16 colour mode or higher, the most colourful things you can do are to change the actual icons and background colours for both the desktop and windows.

INSTALLING ICONS

Simply select an icon and then look under the Options menu for the Install Icon... option. There are around 30 to choose from. To alter the backgrounds, select the Set Color & Style... option from the View menu.

There's a lot more you can do simply by installing XCONTROL, the control panel accessory that comes on the Falcon's Language Disk 1. The manual explains how to use it in reasonable detail but the modules we're interested in are the ones entitled Window Colours and Colour Setup. With these installed, you can really turn on the colour.

Go to the control panel and click on the Colour Setup module. You can see that there are 16 coloured boxes. This is the main palette and while you can reveal more colours in other modes, only the first 16

are used for the desktop.

Closer inspection reveals that the lower eight are simply darker versions of the first eight but we can actually change any or all of these colours by adjusting the slider bars to the right.

Exit this module and click on the Window Colours one. From here you can alter virtually every gadget or scroll bar on a GEM window, applying any one of the 16 colours from the main palette – note that they are numbered from 0 to 15,

where 0 corresponds to the colour in the top left in the Colour Setup module and 15 to the bottom right. There are also ten factory settings for you to try – just press one of the function keys and see how the colours change.

Back to the Colour Setup module and it's time to tweak the colour scheme. It isn't as easy as it looks – although you can apply any colour to the windows via the other module, some of the icons like the floppy disk and hard drive icons only use the predetermined colours.

DRIVE ICONS

For example, the floppy disk icon uses colour 4 and the hard drive uses 13, so altering these will affect your drive icons.

The best approach is to set up your icons the way you want them, including the programs you intend mounting on the desktop, and then start to change the colours. It is best to stick to one or two bold colours with a few different shades of each. If anyone comes up with decent ones, please let me know – the best will be used to decorate this column every month.

Once you've got your chosen

colour scheme, you have to save it by clicking on the Save option in each of the modules. What happens is that the colour settings are now saved within the CPX modules themselves – not in the NEWDESK.INF file, which would have made things much easier.

Provided you install the control panel every time you boot, your colour scheme will always be there to greet you.

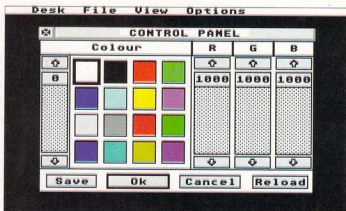
ST emulator?

Ever fancied emulating an ST? In fact, it's not as difficult as it sounds because quite a few decent games won't run on the Falcon.

The answer, if one of your old favourites refuses to run, might well be Backward.

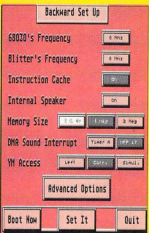
This small but clever utility, v1.43 of which is currently freeware, configures a Falcon for use with ST games by altering things like the processor's clock speed, sound chip addressing and the amount of free RAM available.

First reports indicate that it works well. It is available from Goodman International on Disk GF31.



Changing the desktop palette

John Hetherington customises his new TOS 4 desktop and tries out some unsettling PD software



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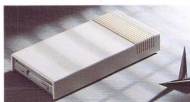
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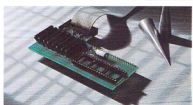
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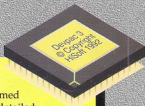


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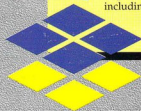
- ✓ Extra include files for SpeedoGDOS™, MultiTOS™ and MiNT™
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Lattice C 5.60

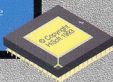
The premier C compiler gets a long-awaited upgrade. In addition to the improvements listed below, we have also revised and re-printed the entire documentation, bringing the three volumes right up-to-date. Lattice C 5.60 is supplied with *Modern Atari System Software* free of charge and upgrades start from £49.95, RRP is £169.

- ✓ Extra include files for SpeedoGDOS™, MultiTOS™ and MiNT™
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- ✓ Falcon030 AES and DSP/Video/Audio support (full details given in *Modern Atari System Software*)
- ✓ Better ANSI compliance, better diagnostics and improved source debugging
- ✓ WERC5 supports 3D effects & Linker supports global constructors/deconstructors



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