ATARI ST USER

July 1993
Issue 89
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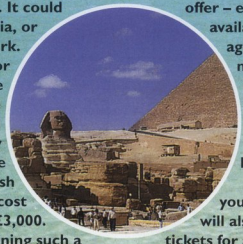

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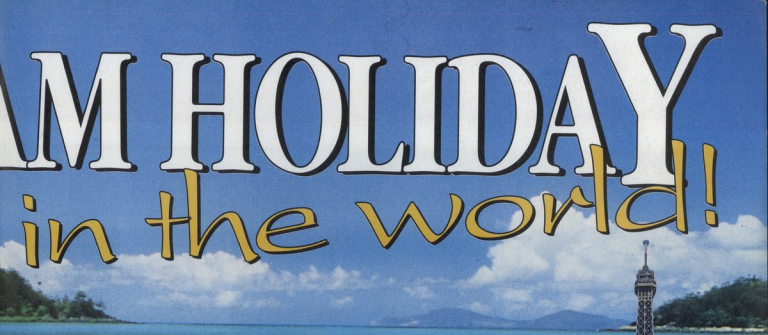

WHICH MAGAZINE FOR YOU?

ACORN – One of Britain's longest-running computer magazines, *Acorn Computing* (£2.95) is the pre-eminent choice for users of the Archimedes and BBC Micro.

COMMODORE – Three magazines serve the dedicated Amiga fraternity. For games players there is *Amiga Action* (£3.95) and *Amiga Force* (£1.95), while *Amiga Computing* (£2.99) covers every aspect of this versatile machine. Owners of the C64 will find all they need in *Commodore Force* (£2.95).

ATARI – For the Atari ST enthusiast there are three magazines – *ST Action* (£3.95) for gamers, with *Atari ST User* (£3.40) and *Atari ST Review* (£3.50) satisfying the more general ST owner.

NINTENDO – The whole of the ever-expanding Nintendo scene is covered by *N-Force* (£1.95), while dedicated fans of the Super NES have *Super Action* (99p) and for Game Boy freaks there's *GB Action* (99p).

PC – Most dynamic newcomer on the PC magazine scene is *PC Home* (£3.95), covering both business and leisure interests. *PC Today* (£3.95) is devoted to supplying practical solutions for the small businessman.

SEGA – All the Sega games machines have their champion in *Sega Force* (£1.95), with *Mega Action* (99p) serving the needs of Mega Drive owners *(to be launched on May 20)*.

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On this month's disk we have the complete software from Microdeal's Video Master package which allows you to load and edit recorded video and audio sequences

PLUS:

- **TruePaint – a fully-usable demo of this extremely versatile paint package from HiSoft which we reviewed last month**
- **Everest – Create files with this feature-packed text editor**
- **GNU Chess – Want to see how clever your ST really is? Then challenge it to a game of chess**
- **Dynaram – a neat little utility which keeps tabs on how much memory is left in your ST**

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EDITOR John Butters
ART EDITORS Terry Thiele, Tym Lecky, Alan Jones
TECHNICAL EDITOR Darren Evans
PRODUCTION EDITOR Phil Morse
STAFF WRITERS Jonathan Maddock
AD MANAGER Simon Lees
AD PRODUCTION Barbara Newall
MARKETING ASSISTANT Lucy Oliver
PRODUCTION Sandra Childs
CIRCULATION DIRECTOR David Wren
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Europa House, Adlington Park, Macclesfield SK10 4NP
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Fax: 0625 850652

CHAIRMAN Derek Meakin
MANAGING DIRECTOR Ian Bloomfield

Member of the Audit Bureau of Circulation

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Unit 2, Millmead
Business Centre
Millmead Road
Tottenham Hale
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Jaguar's computer role

by John Butters

NEW details have emerged about Atari's Jaguar, the 64-bit games console which could push the manufacturer to the forefront of the electronic entertainment market before this year end.

According to US magazine *Electronic Gaming Monthly*, the machine uses RISC technology and there are plans for a range of add-ons to turn it into a powerful home computer.

RISC – standing for Reduced Instruction Set Chip – is designed to have few instruction commands, enabling it to pass through code quickly.

One of the first home computers to use the chip was Acorn's Archimedes, which has since become popular in education and is now competing against the Falcon and Amiga 1200.

Peripherals rumoured to be under development for the machine include a hard drive, keyboard and even virtual reality head-gear.

Gleadow: No comment on Jaguar

It is unclear whether they will be ready by the time the machine is released, but they indicate that Atari's future product line will include computers based on Jaguar technology.

Several software tie-ins are believed to have been secured with major films which are due to be screened around the console's launch period.

Atari boss Bob Gleadow refused to comment on the reports, claiming the project is still covered by non-disclosure agreements between the manufacturer and their software partners.

A spokesman for the firm confirmed, however, that a "new product in the electronic games marketplace" is due to be shown this autumn.

Colour added to graphics

BIT-image and vector graphics software Silhouette will soon be available in colour, the program's American developers have just announced.

Silhouette Colourtrace features colour or mono bit-image auto-tracing with upgraded features and lower memory requirements.

An Advanced Multiple Duplication Feature allows control over the size, rotation, line width, fill pattern, colour and offset of each duplication.

And its drawing tools include Polylines, B-splines, Beziers, circles, ellipses, circular and elliptical arcs, stars, polygons, parabolas, spray can, eraser and a pixel editor.

Others include advanced user fills, spline editing, warp objects along a curve, rotate, mirror, flip, spirals, rounded boxes, rectangles and flood fills.

A range of file formats are supported, and it takes advantage of Falcon's 16 and 256-colour modes and a maths co-processor if one is fitted.

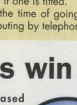
Prices had not been fixed at the time of going to press, but should now be available from British distributor Ladbroke Computing by telephoning 0772 203166.

Psygnosis win export award

PSYGNOSIS, the Liverpool-based makers of top ST leisure software including Lemmings, have become the first computer games software company to receive the Queen's Award for Export.

The firm's exports to North America, Europe, Japan and Australia have more than quadrupled over the last three years.

Revenue from exports and royalties earned from Japan and America accounted for more than 40 per cent of turnover between 1991 and 1992.



"Most successful in Japan"

"As a British-based company in the entertainment software field, we are the most successful in Japan," claimed Psygnosis development manager Ian Hetherington.

"Our work with major Japanese companies has been in development for some time now and we are beginning to see the fruits of these joint projects."

Video ratings plan for CD games

COMPUTER games developers are close to agreement on self-regulation which could lead to some programs being given video-type age ratings.

The move is intended to help clean up the software industry's image after several months of tabloid newspaper claims about the effects games playing has on Britain's kids.

In some of the latest stories, the media have highlighted the reality of horrific graphics contained in a recently-released console game.

ELSPA (European Leisure Software Publishers' Association), the trade body representing 98 per cent of games developers, have drafted a Code of Practice for their members to follow.

Under the Code, CD-based software which has been produced from film will be submitted to bodies such as the British Board of Film Censors for classification.

Ratings given to the software will be displayed on packaging and allow parents to easily identify games which contain material that might be unsuitable for their children.

Industry bosses fear that unless they agree on self-regulation, politicians could force computer and video games to be included in the Video Recordings Act 1984.

That would mean all programs including those with lower graphical standards on floppy disk would be tested, costing the games industry millions of pounds each year.

"The video industry had legislation imposed on it," said ELSPA's Roger Bennett, "We want to avoid that situation.

"Our aim is to make games legal, responsible and for publishers to pursue activities that are socially acceptable. Most of our members are in favour of the action planned."

CD games: Video-type ratings plan

Falcon: Big hit at the Midi Music Show

Midi Music Show gives Atari a big boost

THIS year's Midi Music Show confirmed its position as Britain's premier venue for hi-tech music and computer products, with scores of new ST/Falcon programs shown.

More than 300 companies exhibited, including major musical instrument manufacturers such as Yamaha, Roland, Korg, Peavey and Akai.

Many instruments were shown for the first time, and for anyone hungry for information there were free seminars running for the duration of the show.

The Falcon was well in evidence and several companies unveiled new products for the ST, proving that the market is still active.

In addition to their new Musicom package, Compo Software (0480 891819) had a wide range of products – everything from CAD to hardware upgrades.

Harman Audio (0753 576911) were showing Cubase Audio (£799) for the Falcon. It adds eight-channel direct-to-disk recording to Cubase and lets you add digital effects to the signal.

Unlike similar systems for other computers, the Falcon does not require any additional hardware.

Computing For Music (081-340 1871) have just set up the Falcon Musicians' Club, which costs £20 to join.

Members are sent a regular disk newsletter containing news, reviews, interviews, letters, questions and answers and an up-to-date listing of Falcon music packages.

Gajits (061-236 2515) promoted the Breakthru and Breakthru Plus sequencers, along with videos showing how to get the best out of them. They were produced by Labyrinth (0254 662096). The firm also have Cubase and Notator videos and plans to produce more for the music software market.

Several companies were selling Midi song files including Heavenly Music (0255 434217), Hands On (0705 221162), MIDI Music (0602 633117) and Newtronic (081-691 1087).

Heavenly Music demonstrated a new range of Techno Groove files (£16.95) and Easel Junior (£14.95), a Sound Canvas editor which runs as a desk accessory.

Hands On also had some Midi file conversion programs for Steinberg's Pro 24 and the Limelite Midi Lighting Controller.

BCK (0708 448799) had advance information on The Lite Show which produces automated displays from a Midi file or sequencer.

Take Control (021-415 4155) had a new version of Music DTP, now named SharpScore (£395).

It has a range of new features including automatic part extraction, continuous formatting mode and an extended chord window.

But one of the most fascinating programs was John the Composer (£49) on the Newtronic stand.

You can influence the music it generates by deciding how much control you hand over to John! A full review appears on page 27 of this issue.

Atari open Euro centre

ATARI have set up a new European Distribution Centre in Vianen, Holland, with the aim of improving national support through shorter response times and better stock controls.

The firm say that although the changes are transparent to the customer they have made exceptional advances in customer service and satisfaction.

The move takes advantage of the recent law which frees the movement of goods in Europe and Holland's efficient air, road and sea links with the European Community.

DIARY DATES

16 to 20 September 1993
Live '93
Organiser: News International
(071-782 6000)
Venue: Olympia, London
A public consumer electronics show with a large computer area promised.

5 to 7 September 1993
European Computer Trade Show
Organiser: Blenheim
(081-742 2828)
Venue: Business Design Centre, London
A trade-only event where Christmas releases will be previewed.

11 to 14 November 1993
Future Entertainment Show
(0225 442244)
Venue: Olympia, London
A multi-format computer and console show.

19 to 21 November 1993
International Computer Show
Organiser: Westminster Exhibitions
(081-549 3444)
Venue: Wembley, London
Discounted software and hardware plus product releases.

OVERSEAS

3 to 6 June 1993
Summer CES
(010 1 202 457 8728)
Venue: Chicago, USA
A massive consumer electronics show, sometimes with Atari presence.

● If your company is organising a show relevant to the ST/Falcon and it's not listed, let us know so we can include the information in the diary.

Do you know something we don't?

Although *Atari ST User* has scores of contacts in the ST world we need you. If you have some hot news ring John Butters on the news desk now on 0625 878888 or fax to 0625 879966. All sources will be treated in the strictest of confidence.

Printing at high speed...

SPEEDJET 300 is the name of Seikosha's new inkjet printer, a model they claim offers high quality and low noise printing at up to 300 characters per second.

The firm say high speed printing is available on plain paper, transparencies or envelopes, and is achieved by using a new high capacity print head.

Its 16k printer buffer can be expanded with optional 128k and 256k expansions, and a single-sheet feeder capable of holding up to 100 sheets of paper is supplied.

SpeedJET's fonts include letter quality Dutch 801, Letter Gothic and Courier in various styles. They can be printed in vertically or horizontally at up to 300 dots per inch.

It includes HP DeskJet 500 emulation and costs £359.

SpeedJET 300: Printing at 300 eps

Ladbroke Computing

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Ladbroke Computing International are one of the longest established home computer dealers in the U.K. We have developed an extensive customer service policy which involves testing of all hardware prior to 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.

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Ladbroke Computing Ltd trading as
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Fax: (0772) 561071
Tel: 9.00am-5.30pm (5 Lines)
(0772) 203166

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**

Citizen

Citizen Swift 240 Colour	**£270.00**

Hewlett Packard

HP Deskjet 500	**£329.00**
HP Deskjet 550 Colour	**£620.00**

Lasers

Seikosha OP104	**£549.00**

- 512K RAM (Exp to 2.5Mb)
- HP Laserjet IIP emulation
- 14 resident fonts
- Centronics/RS232C/RS422
- 12 months on-site warranty

Seikosha 512k RAM upgrade	**£69.00**
Seikosha Toner (2 units)	**£19.00**
Seikosha Drum Unit	**£79.00**
Ricoh LP1200	**£759.00**

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

Data\Pulse Plus

Hard Drives

- All Data-Pulse Plus Hard Drives are fully Autobooting/Autoparking and are formatted, partitioned and tested before despatch, ready to "plug in and go"
- Full metal case measuring 300mm x 285mm x 51mm (wdh), providing good shielding and monitor stand
- Only Highest Quality Quantum or Maxtor mechanisms used
- All drives come with full 12 months warranty and free expert help and advice over the phone

Data-Pulse + 42Mb	**£319.99**
Data-Pulse + 85Mb	**£379.99**
Data-Pulse + 127Mb	**£429.99**

Floptical Drives

- Capable of storing over 20Mb of uncompressed data on a single 3.5" Floptical disk. Can read and write 720K and 1.44Mb 3.5" Floppy disks.
- Average access time 65ms. Data transfer rate of 200K per sec (6 times faster than Floppy disk).
- High quality Data-Pulse Plus Case and PSU.
- Ideal for fast data backup from hard drive. Diamond Back II compatible.

21Mb Floptical Drive	**£399.99**
Datapulse upgrade	**£299.99**

All the Above drives include one 21Mb 3.5" Floptical Disk. Phone for combination HD/Floptical units.

21Mb 3.5" Floptical Disk	**£24.99**
5 x 21Mb Floptical Disks	**£114.95**

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
- Fully tested prior to despatch
- All Aries RAM upgrade boards come packaged in a 10 capacity disk box, complete with full fitting instructions and memory test disk.

512K Board	**£39.99**
2Mb Board	**£79.99**
4Mb Board	**£129.99**
512K SIMM's STE	**£7.99**
2Mb SIMM's STE	**£49.99**
4Mb SIMM's	**£94.99**
2 x SIPP to SIMM adaptors	**£3.00**

ST/Falcon Networks

Datanet Network Hardware

- Cartridge based high speed network solution
- Compatible with ST (F)(M), Mega ST, STE, Mega STE

Powernet Network Software

- MultiTasking Network software allows applications to run on the server while drive and printer accesses take place in the background

DataNet with PowerNet	**£99.99**
LanNet with PowerNet	**£89.99**
MidiNet with PowerNet	**£59.99**

Prices quoted are for 1 Node. Each computer attached to a Network requires 1 Node. A LanNet device is required to Utilise the Lan Port on a Mega STE, TT or Falcon.

STE Packs

520 STE	**£219.00**
1Mb STE	**£229.00**
2Mb STE	**£275.00**
4Mb STE	**£329.00**
1040 STE Curriculum 2	**£289.00**

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, higher than CD quality. Stereo sound sampling

FALCON 4Mb 65Mb HD	**£959.00**

Software

Silhouette	**£60.00**
Scanlite Accessory	**£20.00**
Diamond Back 2	**£29.99**
Diamond Edge	**£34.99**
Image CAT	**£24.99**
HD Turbokit	**£4.99**

PC Emulators

- Run PC Software on your ST
- Full installation instructions
- XT or AT Emulation

PC Speed STFM (XT)	**£55.00**
PC Speed STE (XT)	**£55.00**
AT Speed STFM (8MHz)	**£129.00**
AT Speed STE (8MHz)	**£139.00**
AT Speed C16 STFM	**£189.00**
AT Speed C16 STE	**£199.00**

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	**£39.99**
1Mb internal drive	**£44.99**
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

Monitors

Philips 8833 MkII	**£229.99**

Includes 12 Months on-site warranty (Mainland UK) and free Lotus Turbo Challenge II game.

Hi-Res Mono Monitor	**£139.99**

High quality 14" SVGA Monitor with ST adaptor (including sound). Fully compatible with all ST Hi-Res Programmes

Philips 15" FSTTXT TV	**£259.99**

Fully Remote control, 60 channel, Fast Text TV with Scart input for near monitor quality display.

Colour SVGA Monitor	**£249.99**

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**

Euro News

Don Maple with the latest news and gossip from across the Channel

Eurocheque tip for foreign buying

BUYING hardware and software from Europe has become much easier since the beginning of the year thanks to the agreement removing all customs hassles. Actually it's like shopping by mail order in the UK but often cheaper, since the VAT in Germany is only 15 per cent!

The major difference is that credit cards are all but unknown in Germany and nobody accepts them. Most money transactions here are done by bank draft, CoD or Eurocheque. Whichever method you choose, avoid dealing with German banks.

Once the local bank takes its cut and applies its exchange rates, the German company will be short-changed causing delays and irritation all around.

My tip is to pay by Eurocheque as that way everything is handled in the UK. Additional savings can be achieved by getting together with a few friends and placing a bulk order. Not only will you save on postage and packing but you might even be able to negotiate a special discount!

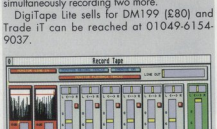
Tapeless recording from Trade iT

DIGITAPE – the direct-to-disk recording program announced in *Atari ST User* a couple of months ago – is now available. Even though the program's main purpose is to act as a digital tape recorder, it also includes a spectrum analyser and real-time sound processing. The latter is particularly interesting because Trade iT provides for third-party effect modules to be added at a later date.

Some modules, such as echo, distortion and flanger, come with the package. For example, I plugged my guitar into the microphone connector and got instant echo, reverb and frequency equaliser effects.

The mixing board is particularly interesting since you can add effects in any order via a simple mouse click. The direct-to-disk part of the program can play back up to six tracks while simultaneously recording two more.

DigiTape Lite sells for DM199 (£80) and Trade iT can be reached at 01049-6154-9037.



DigiTape in action

New NVDI for Falcon

BELA have released v2.5 of NVDI, which is Falcon compatible. NVDI is a software accelerator for the ST which improves on the somewhat sluggish GEM performance.

This is achieved by using completely rewritten low-level GEM routines – or, to be exact, VDIs (Virtual Device Interfaces).

The new routines are fully compatible with Atari VDI but are appreciably faster. The program works in all resolutions and is fully MultiTOS compatible.

In addition, it includes a full GDOS which users of normal Atari GEM would have to retro-fit. This makes the output of any program that uses it device independent. Another attractive GDOS feature is the ability to use different fonts.

The Falcon version of NVDI costs DM129 (about £50) and BELA can be reached on 010 49 6196 481944.

Eurotalk

THE BBS beat in Germany was rife with rumours recently, so much so that Atari published an open letter to set things straight. Here are a few key points.

The famous Düsseldorf show will not be held this year in its old format. Two alternative proposals are under consideration and will be made public within the next couple of months.

In the meanwhile, independent shows are on the march. A CeBit follow-up was held at FEZ – a general hobby type show – in Berlin, with the participation of Atari Germany and many of the companies which were present at CeBit. A similar show is planned for the autumn.

CCD (Tempus, Tempus Word) hosted a "house show" on May 22 – a combined fair/exhibition including everything from workshops to special discounts. Also taking part were Atari, DMC, Soft Arts and Synthesizer Studio Jakob GmbH.

And there is a new policy regarding product announcements whereby Atari will refrain from discussing unfinished products. Due to high demand the production of the TT continues.

Furthermore, an Austrian Atari magazine, XEST, has published a revealing interview with Jack Tramiel. Reflecting on what has caused Falcon delays, Mr Tramiel said that he would rather have no product than an unfinished one one he can't sell. He also confirmed that Falcon030 is only the beginning of a whole new product range.

Finally, because of the closer European links, a new Europe-wide advertising and marketing policy is being worked out.

PD of the month

EACH month in this corner we will present an interesting PD program. New PD programs for the Falcon are coming out fast and furious – old programs are upgraded and everywhere MultiTOS compatibility is a must.

This month's gem is... well, GEMVIEW actually, currently up to v2.23.

GEMVIEW: Now available for the Falcon

GEMVIEW is the ultimate graphic converter/viewer.

Not only will it let you view any graphic format imaginable – from GIF and JPEG to IMG and PCX – but it will convert between them as well.

To top it all off, GEMVIEW works in all resolutions and automatically adjusts the picture to the available number of colours.

However, to get the full benefit you need the full version of the program which can be obtained for DM30 (about £12) by registering with the author, Dieter Fiebelkorn at Gruener Weg 29a, 4370 Marl-Brassert, Germany.

System Solutions

High Res Monitors

The sudden lack of Atari High Resolution monitors, and high demand have prompted System Solutions to fill the gap with their new range of SM14 monitors.
This 14" monitor has a paperwhite FST (flatter squarer tube), which gives a crisp and sharp image with no blurring at the edges. There are two models, the SM14 without speaker, and the SM14s with Speaker. A special Falcon version is available.
The Monitor has only 1/2" boarder, which gives the biggest picture on any 14" monitor, perfectly centered. It has dynamic focussing, and a tilt and swivel base. It is a totally plug in and go unit.

'Essential Buy, 90%'
ST Review, May 1993.

RRP:£149.95
without speaker
RRP:£169.95
with speaker

Special Price
when bought with OverScan ST. See Below

New Version Falcon compatible

NVDI

If you are one of those people who use DeskTop Publishers, or Music Notation, do you find that you spend ages for the screen to redraw? NVDI is the fastest and most compatible software display accelerator available.
It works by replacing parts of TOS with optimised code. The faster the processor (CPU), the greater the benefit. Display routines are 3-10 times faster.
The New Version 2.5x is even faster, and is Falcon compatible.

Version 2.5x - £49.95

New Price

High Density

Would you like to have 1.44Mb on one floppy, well now you can with the Elco High Density kit. Features include:

- ★ Support for up to three drives!
- ★ Hardware and software sensing!
- ★ Software is included. (ACC and CPX)
- ★ Supported by TOS 2.06
- ★ New 1.44Mb Floppy drive
- ★ The first and still the best!

A perfect replacement for those single or double sided drives.

Special Offer Price: £79.95
The High Density Module is also available seperately without the drive for £39.95

News

Hard Drives

QUALITY SCSI Hard Drives are available with anything from 40 Megabytes to 2 Gigabytes!! They are all carefully assembled into beautiful UK made cases, and available from as low as £299

Special Offer:
120mb SCSI Drive complete with ICD Link - £459.95 inc.

Falcon Hard Drive,
Ideal for hard-disk recording,
120Mb - £399.00, 1Gb - £1495.00
Ask for a quote

Falcon Tower

Custom made in Germany, the Falcon Tower System is now available, the price includes a keyboard kit - £249.95

Exciting News

Extra High Density Drive

Now available - 2.8Mb floppys, compatible with big blue. Reads and writes 720k and 1.44Mb floppies.
Ask for an information sheet

Black Water BBS

Our new BBS is now up and running, Features include: a helpline, Special Offers, Press Releases, Product Information, file and message base.
*** 14,400, MNP5, 8N1 ***
Give it a call on 081-229 3133

For further information on any of the products on this page, please contact:

System Solutions,
Windsor Business Centre,
Vansittart Road, Windsor, SL4 1SE
Tel: 0753-832212
Fax: 0753-830344
or
17-19 Blackwater Street,
London, SE22 8RS
Tel: 081-693 3355
Fax: 081-693 6936

Crossing the Border

EVER fancied the idea of a larger monitor, but not the price that goes with it?? Well now you can, with OverScan ST. This little board fits inside your Atari ST(FM) or Mega ST (not STe's) allowing you use the black borders as an extended working area. In practise this means that you will get up to 40% extra screen in high resolution, and up to 60% in colour.

Special Offer
Price £39.95

Extra Special
SM14 Monitor and OverScan - £169.95
SM14, + OverScan Fitted - £199.95

Above: Without OverScan installed
Right: OverScan in action

Atari Repairs/Upgrades

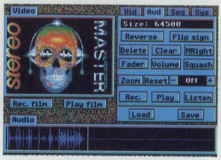
At both of our service centres, we have fully equipped workshops, giving a complete, professional service to ensure customer satisfaction. Our high standard of workmanship has been endorsed by Atari UK. We offer a repair service, and will fit memory upgrades, accelerators, towers etc. If we can be of any help, then please contact us at one of the centres below, where our friendly and helpful staff will be pleased to assist you.

Windsor Service Centre:
Windsor Business Centre, Vansittart Estate, Windsor, SL4 1SE. Tel:0753-832212
London Service Centre:
The Desktop Centre, 17-19 Blackwater Street, East Dulwich, SE22 8RS. Tel:081-693 1919

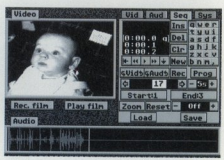
ATARI WORKSHOP

COVERdisk

On this month's disk we have Microdeal's audio/visual software package, Video Master, and HiSoft's first art package, True Paint



Not only is Video Master a video grabber, it's also a sound sampler as well allowing you to edit any recorded soundtrack in memory



This is the film sequencer where you can create a film sequence to produce your own video

Video Master

The complete software suite from Microdeal's low cost sound and vision recording package

Programmed by: Two Bit Systems
Configuration: All STs/FalconO30 - low resolution
Filenames: X_VIDEO1.TOS, X_VIDEO2.TOS - self-extracting archives

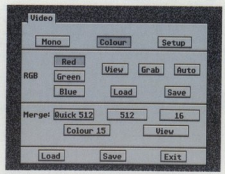
The Video Master software is the complete suit of programs from the Video Master package. Load it up and see just how powerful and easy to use it is. Then, if you feel like a budding James Cameron or Steven Spielberg, take advantage of our special Video Master reader offer to create your own video sequence masterpieces.

Microdeal have long been producers of good quality, low cost sampling systems. Now, with the ever increasing popularity for so called multimedia packages, they have combined their expertise in sound sampling with the exciting domain of colour video digitising to bring a powerful sound and vision recording system within the home user's reach.

The complete Video Master system consists of quality audio/visual recording hardware and software providing a flexible and easy to use package that will allow you to mix sampled sound and colour or greyscale pictures from a video recorder or camcorder simultaneously.

The powerful software also features a sequencing system whereby you can link the recorded sounds and pictures to form a computerised film sequence.

Once your sequence has been edited you can place it on to a separate disk and utilise the Vidiplay program. This allows you to transform any Video Master-created sequence into a standalone demo. Vidiplay also incorporates some special effects such as picture-in-picture.



Full-frame colour images can be grabbed from either a camcorder or video and converted to Spectrum 512 format for 512-colour pictures

Video Master reader offer

To record pictures and sounds you need the Video Master hardware which consists of a cartridge that plugs into the (you guessed it) ST cartridge port.

Atari ST User and Microdeal are offering our readers the chance to obtain the hardware at a special discounted price of £39.95. For full details on how to order and where to send your order to, turn to page 15.

Each picture loaded into TruePaint has its own window incorporating a toolbox for quick and efficient access to all drawing functions

TruePaint

Complementing last month's review of HiSoft's versatile art package, we bring you a fully useable demonstration version to check out

Programmed by: John Gymer and others
Configuration: All STe /Falcon030 - All resolutions
Filenames: X_TPDEMO.TOS - self-extracting archive

TruePaint received a big thumbs up when it was reviewed last month, and deservedly so. It's a powerful, flexible and very easy to use art package that works on all STs and also takes advantage of the enhanced graphical abilities found in the Falcon/TT and third-party graphic cards like Crazy Dots.

Falcon owners will find that TruePaint offers full support for this exciting machine. It takes full advantage of the Falcon's TrueColour and Overscan modes allowing some truly amazing pictures to be created.

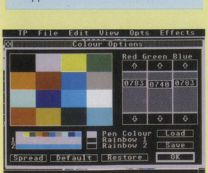
Another powerful feature of TruePaint is its large range of supported file formats – GIF, JPEG, TIF, IFF, TGA and many others including TruePaint's own file formats are catered for. This also allows for a certain amount of conversion from one format to another – a very useful feature in itself. This demonstration version has some restrictions. For instance, you cannot save any picture created, and can only load JPEG files, whereas the full version has many more formats. A message reminding you that this is a TruePaint demo appears frequently.

However, all the drawing functions are available such as the brush effects which allows the application of such functions as smear, pattern, lighten, darken and others to the image on-screen.

Some of TruePaint's features

- *Works in all screen modes*
- *Compatible with TT and Falcon030*
- *Easy to use multi-window environment*
- *Large range of effects such as smear, smooth and rainbow*
- *Supports FSM/Speedo GDOS*
- *Extensive range of file formats supported such as GIF and JPEG*

TruePaint is extremely versatile, allowing various modes of operation to be activated



This is where you select the colours with which to create your masterpiece

Pig in the mire

It seems that on last month's CoverDisk Psycho Pig 2 went psychopathic during the archiving process, resulting in unusable files.

But fear not, just send in your CoverDisk with an addressed envelope and you will receive a fully working version at no extra cost.

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.

Dynaram

A useful utility that allows you to see just how much memory is left in your ST at any one time

Programmed by: Stuart Ball
Configuration: All STs - Medium and high resolution
Filenames: X_DYNARAM.TOS - self-extracting archive

Have you ever been peeved by the fact that, before TOS 2.06 the ST never had any built-in way of advising how much memory was at your disposal?

Well fret no more. Dynaram is a useful utility that, once run either from the desktop or auto folder, dynamically displays the amount of free RAM remaining in your ST.

Problems with your CoverDisk?

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

PC Wise, Dowlais Top Park, Dowlais, Merthyr CF48 2YY

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

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. The Hotline number is only available within the times specified, and no advice will be available outside these hours.

Everest

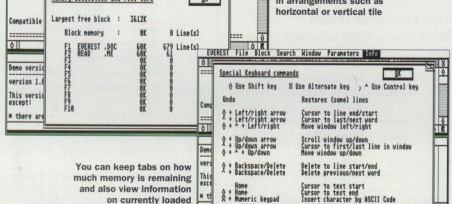
A brilliant text editor packed with features and which also supports all known graphics cards

Programmed by: Oliver Schmidt
Configuration: All STs - medium or higher resolutions
Filenames: X_EVEREST.TOS - self-extracting archive

Many text editors are available, so why is this one different, you may ask? Well, for one, it is designed to work on any Atari 680x0 computer so it works with the TT and the Falcon030. Also, Everest employs dynamic memory allocation, which means it is ideal for multitasking operating systems such as MultiTOS. Full use is also made of GDOS so you can use various fonts.

Besides the above, Everest is extremely well written and has quite a large range of features which make text editing much easier. There are extensive block editing and search and replace functions as well as multiple window arrangement features such as tile or stack, allowing you to have several files displayed on the screen at once.

This multi window ability is at its most powerful when used in enhanced screen resolutions provided by the Falcon030, TT, graphics cards or resolution – enhancing hardware such as Overscan.



Everest allows multiple documents to be opened for editing and has built-in arrangements such as horizontal or vertical tile

You can keep tabs on how much memory is remaining and also view information on currently loaded documents

GNU Chess

A great chess game written for a SUN workstation computer and ported for use on a ST

Configuration: All STs - low resolution
Filenames: X_CHESS.TOS - self-extracting archive

Chess, the game of kings, queens and prawns (that's pawns, fool – Ed). A game of strategic forward planning played by intellectuals – who seem to be predominantly Russian – and which can leave you with a enormous headache if you are not used to using more than 0.5 percent of your brain.

It also brings back happy memories of my days at school when I joined the school chess club, for reasons other than actually playing the game (OK, there were lots of girls there). Unfortunately, the teacher soon cottoned on to this and I was booted out.

The trouble with chess, though, is finding someone to play against. If you are good at it and continually beat your opponents, they soon get fed up and stop playing you. Fortunately, your computer will not mind you beating it and is also a worthy opponent to boot.

GNU chess has been greatly enhanced by the addition of a graphical user interface written by Warwick Allison which gives it a professional look. The actual chess program plays a very challenging game, which is another way of saying it totally wasted me many a time (don't you just hate a smartass computer?).

If you can't find a human opponent up to your level of intelligence, then this electronic equivalent should keep you on your toes for a while.

Does your ST have a higher IQ than you? Test the theory by challenging it to a game of GNU Chess

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: Make a backup of your original CoverDisk and put it in a safe place.

Using archived files

Note: When copying files or disks, 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 pre-formatted blank disk).

1. Format a disk.
2. Copy the required archived file to the formatted disk.
3. Run the copied archived file. It will now 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 re-position 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.

Analogic Computers (U.K.) Ltd

Unit 6, Ashway Centre,
Elm Crescent,
Kingston-Upon-Thames, Surrey KT2 6HH

Mon-Fri. 9am to 7pm Sat 9am to 5pm
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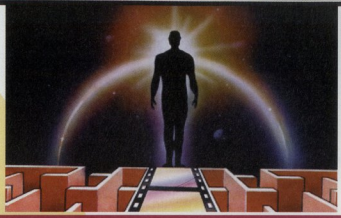

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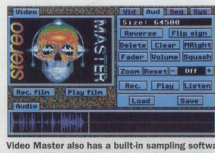

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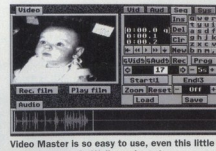


Video Master is so easy to use, even this little chap could use it. Well, maybe not

Are you a budding Steven Spielberg? Then check out this quick guide to Video Master's features

Sound and vision

After extracting the two archived files X_VIDEO.TOS and X_VIDEO2.TOS (refer to instructions in the disk pages), you should have two disks with the extracted files on them. Delete the two X_ files from these disks and you will then be able to copy all the files onto one disk.

There are two versions of the Video Master program, one for the ST and one for the Falcon, so use the one that applies to your machine.

To run it, double-click on V_MASTER.TOS. Shortly, you will be presented with a picture of a camcorder. Click any key and you will be taken to the main menu screen.

In the upper left-hand quarter of the screen is a dark window labelled Video.

This is where most of the action appears when you are working with video input. All recording and playback will appear here. At the bottom of the screen is a wide display labelled Audio. This is where any sampled sound will be displayed as a waveform. At the top right of the screen you will see a number of card index tabs labelled Vid, Aud, Seq and Sys. Clicking on these takes you to the Video, Audio, Sequencer and System configuration screens respectively.

Each of these screens has its own set of controls and enable quick and effective switching between the various menus which make up the Video Master interface. At the moment, the Vid name tag is lighter than the others indicating that this is the active menu. Click on the others using the mouse to activate each of the them then return to the Vid menu.

Until you obtain the Video Master hardware, which is available at a discounted price for *Atari ST User*'s readers (see page 16 for details) it is not possible to record anything yet. However, an example file is supplied on the disk and we will be using that to explore some of the functions available

To load this example, click the mouse on the Seq tab index and then click on Load at the bottom of the screen. A message will appear asking you to specify what type of file you want to load.

You will notice that the Load seq button is already selected so just click on the OK button. Next a file requester will appear, select the DEMO folder and then select DEMO.SEQ and click on Ok. the demo file will now load into memory.

Now let's do a little editing to produce a looping animation. Click on the Vid index tab and then click on the Edit button. You will now be in the video editor. To the right of the screen you will see a number of editing buttons and a "film"-strip type display showing the various frames of the sequence you have loaded.

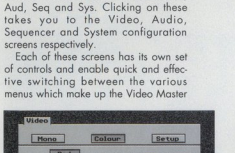
You will also see a scroll bar. Click on the down arrow and you will step through each frame. At the centre of the film strip is a white box which represents the active frame which the editing buttons will act on and, at the bottom of the film strip, you will see the current frame number.

Using the scroll bar, move down until frame nine is in the white frame box. Next, click on the End: button at the top right of the screen. This has marked frames one to nine for editing. Click on the Cut block button and these frames will be erased.

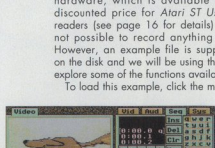
Now move to frame seven, click on the Start: button and then on to frame 16 and click on the End: button. Finally, click on Cut block again and you should then be left with six frames of the cartoon character Rhubarb.

If you now click on the Loop button at the bottom of the screen, you will start an animation sequence which shows Rhubarb running. As you can see, editing frames is very easy.

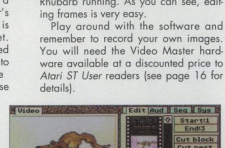
Play around with the software and remember to record your own images. You will need the Video Master hardware available at a discounted price to *Atari ST User* readers (see page 16 for details).



Using the same techniques as the Spectrum 512 paint package, you can display images in a glorious 512 colours



The video sequencer is extremely powerful, allowing you to combine sound effects with any images recorded



Using the video frame editor, you can cut and insert images or sequences much as a real life film editor can

Picture

Which monitor is best for your needs? Darren Evans looks at some of the leading models available

The humble TV or monitor has to be one of the most vital pieces of hardware which you can attach to your computer. Without it the computer is absolutely useless. The monitor forms the most essential communications link between your own organic computer (aka your brain) and your ST.

After buying an ST, many of you would probably have hooked up the good old domestic TV to play your favourite games, and I would also guess that many an argument has broken out among family members over the relative importance placed on the current episode of Home and Away or the latest block-busting game from Psygnosis or US Gold.

However, the average domestic TV does not give the best quality image and sooner or later – either due to pressure from aforementioned family members or because your eyes are beginning to complain at the not too crisp display – many ST owners will begin to contemplate buying a computer monitor.

Monitors operate in a completely different way to TVs. They provide a vastly clearer image because they use an RGB signal as opposed to the modulated one used by a TV. Monitors can also operate at 60Hz as opposed to the TV's 50Hz.

These values refer to the number of times per second which the monitor or TV redraws a complete screen. High values mean that the display will be less prone to flicker and thus more stable.

Just take a close look at a TV screen and you will notice a slight flicker which can make your eyes tire if you view it from close proximity for long periods.

The ST has three screen modes to choose from, namely low, medium and high resolutions. Each of these modes has specific characteristics in terms of colour and size (see ST display basics for a description of each mode).

Low and medium resolution modes are available on any TV or monitor with low being used mainly for games and medium being suitable for more serious applications such as spreadsheets. High resolution, on the other hand, requires a suitable monitor capable of handling the higher resolution.

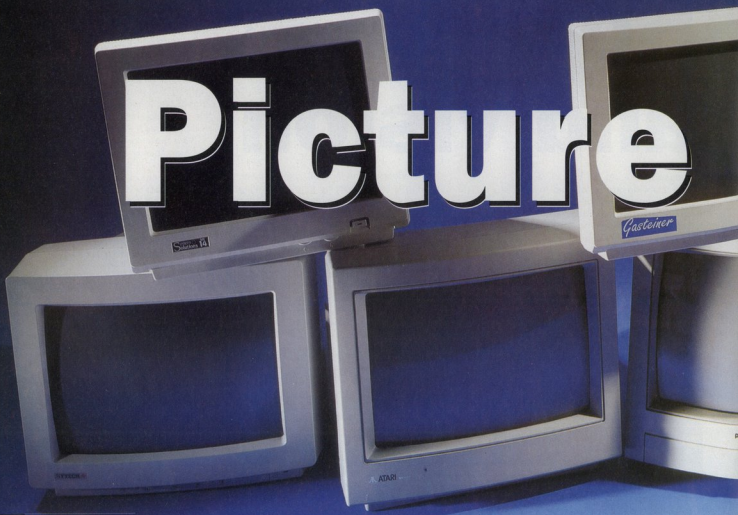
So to the question as to which type of monitor is best suited to your needs and which models are the best. There are a number of types available, so let's take a look at some of those on offer.

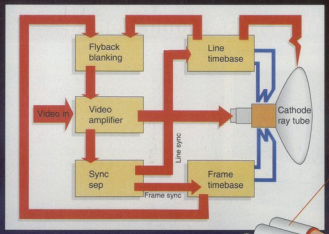
First up are high resolution, or mono, monitors. Because of the 70Hz display rate at which the screen is drawn, the image is extremely steady and clear. Combine this with the fact that the actual screen area is an expansive 640 x 400 pixels and it's hardly surprising that it is the ideal monitor for serious applications such as wordprocessing and desktop publishing.

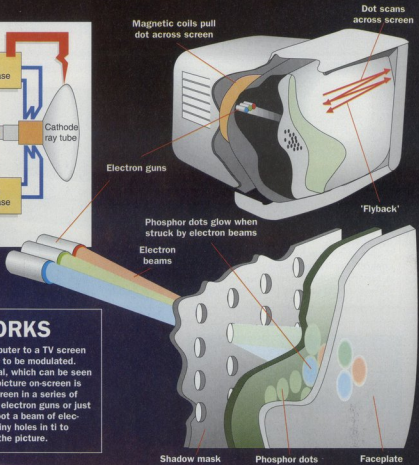
Also, those of you with interests in music will also find that all major music software, such as Notator and Cubase, will only work in mono mode. Such monitors have only been available from Atari, however, and due to a shortage ST users are finding it difficult to actually get their hands on them.

This has led to some companies taking advantage of the situation and coming up with the solution to the shortage problem by using VGA mono monitors from the PC world (using an ST to VGA video adaptor) as a suitable alternative.

One thing to remember though is that these monitors do not have built-in speakers because they are mainly used on PCs, therefore the companies offering these as an alternative to the Atari models have to include their own speaker circuit to provide sound output.





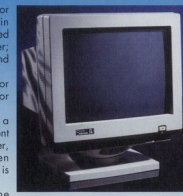


HOW A MONITOR WORKS

The difference between the signal fed from a computer to a TV screen and that fed to a monitor is that the TV signal has to be modulated. This inevitably causes some distortion of the signal, which can be seen as blurring, instability and colour aberration. The picture on-screen is formed by a dot which scans rapidly across the screen in a series of lines called a raster. The dot is produced by three electron guns or just one in the case of mono monitors. These guns shoot a beam of electrons through a "shadow mask" which has many tiny holes in ti to strike a layer of phoshor dots which glow to form the picture.

perfect?

System Solutions SM14 SVGA mono monitor



The SM14 14in Flat Square Tube (FST) monitor with detachable swivel and tilt stand comes in three varieties: SM14, which is the one featured here and doesn't incorporate a built-in speaker; SM14S which incorporates a built-in speaker; and the SM14F which is for use with the Falcon030.

The SM14F differs in that the actual monitor lead terminates with a 19-pin video socket for direct connection to the Falcon030.

Image quality is extremely good indeed with a power switch and thumbwheel controls at the front for brightness and contrast adjustment. However, on the SM14S, the contrast control has been disabled for use as a volume control so contrast is not adjustable.

This is not really a major problem as the contrast is preset to a perfectly acceptable level during modification but a separate volume control would have been nice. Other controls include vertical size and horizontal phase which are located at the rear of the monitor.

One plus for the SM14 range is that they come ready to use with a fitted power plug. Those familiar with System Solutions will no doubt be aware of their Overscan product. Overscan effectively increases the screen resolution from 640 x 400 to a whopping 752 x 480. This is ideal for such work as DTP, spreadsheet and wordprocessing, and to ensure maximum screen size and optimum clarity, System Solutions custom-adjust the monitor accordingly.

Product: System Solutions SM14
Supplier: System Solutions
Telephone: 081-693 3355
Price: £149.95 (without speaker)
£169.95 (with speaker)
£149.95 (Falcon 030 version)

Gasteiner GM148 SVGA mono monitor

Another 14in FST monitor with swivel and tilt stand suspiciously similar in design to the System Solutions model.

A speaker is fitted as standard but the actual volume control knob is a bit of a botch job and protrudes (a little too far for my liking) from the right-hand side of the monitor casing.

Picture quality is good, as is the sound. Contrast, brightness and power are located

at the front of the monitor with vertical size and horizontal phase controls at the rear.

The power lead ends in a two-prong plug requiring a shaver-type adaptor (which was included) to be used to connect it to the three-prong power outlets which adorn every British house!

With the cheap looking volume control and the foreign power plug, the impression is that the monitor is a bit of a "rush job" conversion. However the monitors performance is good so it all boils down to a matter of aesthetic taste.

Product: Gasteiner GM148
Supplier: Gasteiner
Telephone: 081-365 1151
Price: £149.95

Analogic Amitar VGA mono monitor

This 14in FST monitor features a tilt and swivel base, front mounted brightness, power and contrast controls and is also labelled as being a low radiation model.

The actual image clarity is very good but the image orientation was slightly distorted. A slight horizontal tilt to the left was evident and the left-hand screen edge was slightly bowed. Also, the vertical size of the image seemed a little squashed and although a vertical size controller is available at the rear, along with a horizontal phase, this was already at its maximum setting. However, after speaking with Analogic about this, they did say that these problems will be corrected. The monitor is already fitted with an Atari monitor plug so no adaptor is required. There is no speaker, so sound is unavailable. A speaker version should be available in the future.

Product: Amitar SVGA mono monitor
Supplier: Analogic
Telephone: 081-546 9575
Price: £129.99

Ladbroke Data-View SVGA mono monitor

Again, this monitor is, to all intents and purposes, the same as the System Solutions and Gasteiner models. It is a 14in FST with tilt and swivel stand.

The image quality is very good and there are front-mounted controls for brightness, contrast and power.

The rear controls allow adjustment of vertical size and horizontal phase. The monitor does not include a speaker, however, included with the Data-View is an adaptor which has a built-in speaker and also a line out for connection to a hi-fi.

Also, if you happen to chance upon a colour SVGA monitor, the adaptor will allow you to use it in high resolution too.

Product: Ladbroke Data-View
Supplier: Ladbroke Computers
Telephone: 0772 203166
Price: £139.99

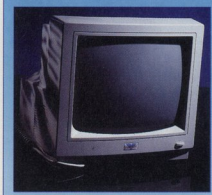
Viewtek greyscale monitor

The opening paragraph of the manual which came with this monitor states: "Your new VT12 monitor supports your computer with a greyscale video display. Its housing encases many special features, ie the ability to display high resolution bitmap graphics. The result is sharp, crisp images."

Whoever made that claim must have been on intravenous equipment filled with mind-altering substances while looking at this so-called sharp and crisp display.

The actual monitor is not capable of displaying a high resolution display simply because it isn't a high resolution 70Hz monitor!

It comes with a disk containing a very good utility called Sebra. Sebra is a program which emulates a high resolution screen on a monitor which can only handle low and medium resolution and although



the program does allow you to run programs which only operate in high resolution mode, the image quality falls far short of a dedicated mono monitor.

However, the monitor does provide a much clearer display in low and medium resolution compared to a TV and with the included Sebra mono emulator does allow you to run high resolution programs.

It is also extremely cheap and is aimed at those on a tight budget whose only alternative is to hijack the TV from family members. It is well suited for such applications as wordprocessing using the medium resolution mode as the display is much clearer than most TVs.

Although you can play games on it, things will seem very much like the colour attributed to John Major!

The monitor itself features front-mounted controls for power, volume, contrast and brightness while at the rear there is a control knob for adjusting the vertical position of the screen.

One annoying aspect is the fact that the video lead that connects to the ST's monitor port comes out from the front of the monitor as opposed to the rear and tends to get in the way.

Product: Viewtek VT12 Greyscale
Supplier: Silica Systems
Telephone: 081-309 1111
Price: £69.99

Colour monitors

In Germany, it is said that approximately 80 per cent of ST users have a mono monitor. This fits in with the actual type of (excellent) software that sometimes finds its way over the channel which tends towards the serious and productive which only works in high\ resolution.

However, in good old England, we seem to be a much more leisure-oriented ST community and games are more dominant. Of course games are best suited to colour monitors for obvious reasons. Although games do exist for mono monitors, I doubt if you would find large game houses such as US Gold or Ocean developing titles for mono only.

Strangely, there seem to be only two contenders in the colour ST monitor market, those made by Atari and those made by Philips. So let's see how each of them compares.

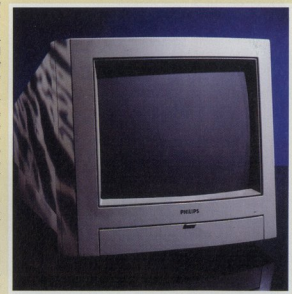
Philips CM8833-II

This 14in monitor features stereo capabilities as well as numerous external controls which will be detailed in a moment. The actual image clarity is very good indeed and the sound excellent when connected to an STE playing a stereo soundtrack.

The power switch is in an awkward position at the back of the monitor but there are controls at the front, behind a neat drop-down door, which allow the adjustment of the volume, contrast and brightness.

Besides these "standard" controls at the front is a green screen switch, which turns the display into a horrible overall green colour, which improves text legibility (allegedly). There is also a saturation controller, which seems to do little to the ST display, and a much more useful horizontal screen position control for making sure the display is centred.

There is also a stereo headphone jack on the side of the casing for times when you don't want mum or dad complaining about the Xenon II soundtrack playing at three o'clock in the morning.



At the rear of the monitor, things get even more interesting. Besides the aforementioned power switch and the 9-pin video port where you connect the video lead from your ST, there are three other connections and five controllers. The three connections include two phono sockets for stereo sound output through the speakers and another phono for CVBS input, which is another, less common form of video input not used by the ST and therefore useless.

The five controllers include horizontal and vertical sizing knobs which stretch the picture in the corresponding directions (and no it doesn't increase the ST's resolution) and a vertical shift knob which acts like the horizontal position knob at the front – except of course it moves the screen in the opposite direction.

The remaining controllers are two push-button switches with one switching between RGB and TTL (Transistor to Transistor Logic), which again are two forms of video input signals, and the other toggling between the third type of video signal input - CVBS.

All these controllers effectively mean that you can use this monitor with computers other than the ST providing they have the appropriate video signals. An immediate example, of course, is the Amiga range of computers.

In fact, our Commodore counterparts on *Amiga Computing* use the Philips on some of their machines. This makes the Philips monitor a very attractive buy should you be the kind of person who has more than one computer.

Product: Philips CM8833-II
Supplier: Ladbroke Computing
Telephone: 0772 203166
Price: £289.99 (includes Lotus Turbo Challenge 2 game)

Atari SC1435

When the Atari STE computers arrived, there was no Atari monitor to take advantage of the fact that the STE was a stereo computer. Atari's monitors such as the SC1224 could be connected to the STE but they only had mono sound. So, the SC1435 was introduced to save the day.

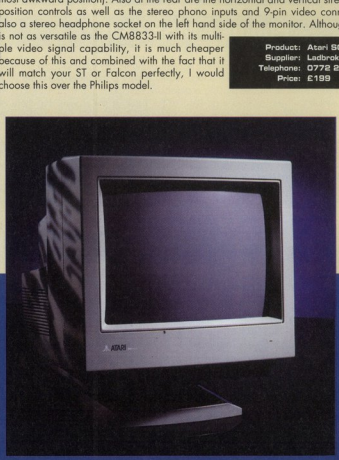
The most immediate thing one notices is the fact that although the monitor casing is an Atari design, the actual electronic insides are identical to the Philips CM8833-II, although the extra video signal inputs, such as TTL and CVBS, have been omitted.

The monitor comes with the ever-useful tilt and swivel stand and image quality as well as sound output is extremely good. In fact, the overall design is much better than the CM8833-II and it does have the Atari logo on it to complement the computer to which it connects.

On the control front, the SC1435 has front-mounted knobs which are nicely hidden under the screen lip. This makes for a very clean and tidy looking monitor indeed. These controls are very similar to those found on the front of the CM8833-II except that the saturation knob is missing.

Unfortunately, the Atari design also has the power switch at the rear of the monitor (a most awkward position). Also at the rear are the horizontal and vertical stretch and vertical position controls as well as the stereo phono inputs and 9-pin video connector. There is also a stereo headphone socket on the left hand side of the monitor. Although the SC1435 is not as versatile as the CM8833-II with its multiple video signal capability, it is much cheaper because of this and combined with the fact that it will match your ST or Falcon perfectly, I would choose this over the Philips model.

Product: Atari SC1435
Supplier: Ladbroke Computing
Telephone: 0772 203166
Price: £199



ST display basics

The ST is capable of displaying three screen modes. These are generally known as low, medium or high resolution. Each varies in terms of the amount of colours available and the actual size of the display as listed below:

Low resolution	*320 x 200 with 16 colours*
Medium resolution	*640 x 200 with 4 colours*
High resolution	*640 x 400 with 2 colours (black and white)*

The resolution is displayed as a pair of numbers indicating the number of picture elements or pixels. For example low resolution has a screen size of 320 x 200 pixels meaning this screen mode is 320 pixels wide and 200 pixels high.

The number of colours and the resolution combined define the quality of image that can be achieved. In general, the higher the resolution and amount of colours available, the higher the quality of the image which can be displayed.

Falcon monitors

With the arrival of Atari's Falcon030 and its ability to use VGA and SVGA monitors from the PC world, the choice of monitors for the new user has further been increased.

The differences between VGA and SVGA are not apparent when used with the standard screen modes offered by the Falcon, however it may be possible that future hardware, or even software, will appear that enables higher resolutions to be achieved.

This may lead to problems with VGA monitors as they are generally accepted in the industry as providing a resolution of 640 x 480. SVGA monitors on the other hand are capable of higher resolutions.

SCREEN MODES

If you are about to buy a Falcon030, it must be realised that certain screen modes are not available with VGA and although a TV/monitor can handle all modes, the higher ones, meaning those with vertical resolutions of 400 lines or higher, are achieved only by using an interlace mode, which causes uncomfortable flickering. A VGA monitor abolishes this flickering but the drawback is that TrueColour modes beyond 320 x 480 are not possible.

At the moment, there is some confusion about what the ideal monitor due to the lack of both documentation and actual Falcons.

Even a Falcon030 brochure released by Atari, detailing the various specifications of the machine, merely states that there are numerous screen modes available and does not mention that there are restrictions on what modes are possible on specific monitors.

IMPORTANT ASPECTS

However, a list has been released by John Townsend of Atari Corp. and is reprinted here as a general guide to the available screen modes and which monitors they apply to.

One important aspect of a VGA monitor is its dot pitch. This value affects the actual image clarity and is usually written as a number following a full point, such as .28.

The number refers to the actual density of phosphor dots with lower low dot pitch numbers resulting in a sharper image. General recommendation is that a dot pitch of .31 is quite adequate for the resolutions offered by the Falcon but I recommend you go for .28.

Also important are frequencies rates. All VGA monitors do a 31.5kHz line rate but vertical rates need to be about 50-70Hz. Fortunately, these are the general norm so finding one shouldn't be difficult.

Resolutions available on the Atari Falcon030

*● The following information was taken from a document supplied by John Townsend of Atari. Any entry marked with * is an addition by myself.*

Also, the reference to TV and monitors being the same also applies to colour monitors for the ST other than those manufactured by Atari, such as the Philips CM8833-II. According to Atari's official description, True Colour refers to a display with 65,536 colours maximum on-screen using 16 planes.

● Many thanks to John Townsend for this list. If you find any errors in it and you have access to a modem, you may Email Mr Townsend on GEnie (TOWNS) or CompuServe (70007, 1135).

"*A couple of notes: Unlike previous machines, there are just too many resolutions to give each a name.*

Therefore, I will do my best to describe what the resolution is and which monitor it is on. TV and a colour monitor are the same. By colour monitor, I mean any colour monitor that Atari have manufactured for the ST/MegaST/STE/MegaSTE computers. By VGA, I mean a standard VGA monitor.

Lastly, there are compatibility modes for ST low, ST medium and ST high on both VGA and ST colour monitors (on a colour monitor, ST high is achieved by using the interlace mode).

ST mono monitors such as the SM124 will work with the Falcon030 as well. However,the SM124 only supports ST high resolution.

All modes on a TV can be overscanned. This means multiplying the X and Y resolution by 1.2. For example, modes with 320 pixels of horizontal resolution (X res) will become 384 pixels across and modes with 640 pixels will become 768 across.

Overscanning is done simultaneously in the X and Y resolutions. You can't do them independently. Also, on a VGA monitor, overscan is faked.

Since the video hardware doesn't have the capability to do overscan on a VGA monitor, we made it so that if a overscan mode is set on a VGA monitor, you still see the normal size screen, but the actual screen is a window onto the larger, overscanned image. Make sense?

We did this for compatibility. That way, a game that has a overscanned title screen can use the same picture on both VGA and TV monitors. Pretty cool eh?

By the way, overscan cannot be set from the Desktop. The AES and Desktop will work just fine with it, but because you can't see the parts of the screen, we thought that the option shouldn't be available from the Desktop.

We don't want to confuse people. However, overscan can be set using a new XBIOS call – Vsetmode() – so it is still available."

40 column modes

4 colour, normal, TV	320 x 200	4 colours, 2 planes
16 colour, normal, TV	320 x 200	16 colours, 4 planes
256 colour, normal, TV	320 x 200	256 colours, 8 planes
True colour, normal, TV	320 x 200	True Colour
4 colour, interlace, TV	320 x 400	4 colours, 2 planes
16 colour, interlace, TV	320 x 400	16 colours, 4 planes
256 colour, interlace, TV	320 x 400	256 colours, 8 planes
True Colour, interlace, TV	320 x 400	True Colour
4 colour, normal, VGA	320 x 480	4 colours, 2 planes
16 colour, normal, VGA	320 x 480	16 colours, 4 planes
256 colour, normal, VGA	320 x 480	256 colours, 8 planes
True Colour, normal, VGA	320 x 480	True Colour
4 colour, line-doubling, VGA	320 x 240	4 colours, 2 planes
16 colours, line-doubling, VGA	320 x 240	16 colours, 4 planes
256 colour, line-doubling, VGA	320 x 240	256 colours, 8 planes
True Colour, line-doubling, VGA	320 x 240	True Colour

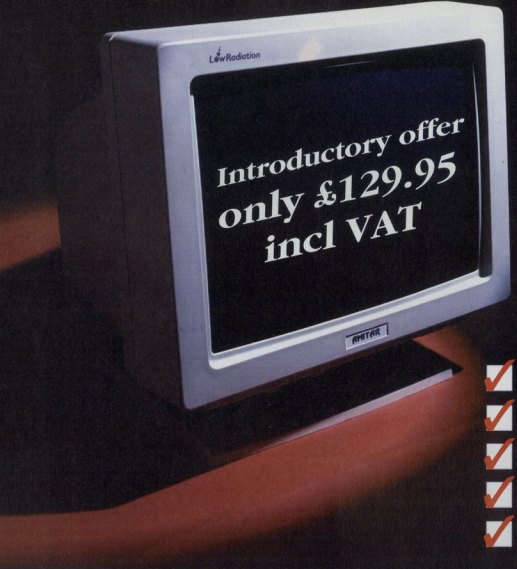
© 1992 Atari Corp, by John Townsend

80 column modes

2 colour, normal TV	640 x 200	2 colours, 1 planes
4 colours, normal, TV	640 x 200	4 colours, 2 planes
16 colours, normal, TV	640 x 200	16 colours, 4 planes
256 colours normal, TV	640 x 200	256 colours, 8 planes
True Colour, normal, TV	640 x 200	True Colour
* 2 colour, interlace, TV	640 x 400	4 colours, 1 plane
4 colour, interlace, TV	640 x 400	4 colours. 2 planes
16 colour, interlace, TV	640 x 400	16 colours, 4 planes
256 colour, interlace, TV	640 x 400	256 colours, 8 planes
True Colour, interlace, TV	640 x 400	True Colour
2 colour, normal, VGA	640 x 480	2 colours, 1 plane
4 colour, normal, VGA	640 x 480	4 colours, 2 planes
16 colour, normal, VGA	640 x 480	16 colours, 4 planes
256 colour, normal, VGA	640 x 480	256 colours, 8 planes
* 2 colour, line-doubling, VGA	640 x 240	2 colours, 1 plane
4 colours, line-doubling, VGA	640 x 240	4 colours, 2 planes
16 colour, line-doubling, VGA	640 x 240	16 colours, 4 planes
256 colour line-doubling, VGA	640 x 240	256 colours, 8 planes

AMITAR

HIGH RESOLUTION MONOCHROME MONITOR FOR ATARI



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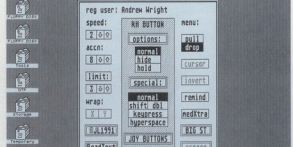
ANALOGIC
ANALOGIC
ANALOGIC

Bored with run-of-the-mill mouse accelerators? John Hetherington searches for something new – and finds it in Mouse Tricks 2



The main control panel - eat your heart out Maccel!

Tricky Mickey!

Mouse Tricks 2 is a desk accessory that gives your tired old mouse a new lease of life. OK, it doesn't actually do anything for the hardware, but it certainly make the mouse pointer fly along – and a hundred and one other things besides.

You can more or less program the right button to do what you want, have different mouse speeds for different programs and even read text files! Amazingly enough, you can also plug a PC mouse into your ST's serial port and use the middle button!

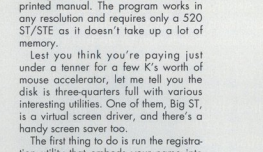
Mouse Tricks version 2.15 comes on a single disk with an ST Club-style printed manual. The program works in any resolution and requires only a 520 ST/STE as it doesn't take up a lot of memory.

Lest you think you're paying just under a tenner for a few K's worth of mouse accelerator, let me tell you the disk is three-quarters full with various interesting utilities. One of them, Big ST, is a virtual screen driver, and there's a handy screen saver too.

The first thing to do is run the registration utility that embeds your name into the code. It also decodes the files into usable accessory format. Frankly I find this type of protection utterly pointless and irritating, but if that's what the author wants to do then that's fine.

Mouse Tricks comes in several forms – there are no less than four different versions, with various combinations of features. The basic version has no text reader and takes up just 34k of RAM, while the full-blown, all-singing, all-dancing version takes twice as much room but includes every last ounce of functionality.

All that's required to get going is to copy the required accessory and resource file to the root directory of your boot disk and off you go.



Read Text - if the manual's a bit vague, at least the name leaves you in no doubt

STEEP CURVE

Actually that's not true at all – forget I said it. The learning curve for Mouse Tricks is quite steep, thanks to the overwhelming number of features. It could be argued that when a utility gets so many features that you can't see the wood for the trees, or in this case the mouse pointer for the dialogue boxes, then it has failed to become a utility at all.

Happily this isn't one of those cases, although it's getting awfully close. Mouse Tricks 2 does take some getting to grips with, but the result is the best mouse accelerator we've ever seen on the ST.

Its strength is that it can be finely tuned to suit everyone. There are 30 speed settings and 16 acceleration ones, so it shouldn't be too difficult to find the one for you.

To help you learn to use Mouse Tricks, there's a separate tutorial accessory which might come in handy, although it isn't the neatest of ideas. Essentially when you hold Alternate down and click on a button, the help accessory loads the manual and turns to the appropriate section.

It's a bit long-winded and not a method that is likely to encourage floppy disk owners to use it – the help file is 112k in length!

Up to 20 different settings for the mouse can be stored and retrieved using the push button dialogues or a given key combination. You can also store a list of up to 40 different programs telling Mouse Tricks which settings are to be used with that program and the amount of memory the program is allowed to use.

MEMORY HUNGRY

The latter is particularly useful with badly behaved programs like Firstword Plus that ungraciously snatch all your ST's available memory. Read Text is a rather unimaginatively named utility that lets you read text files. It also helps you find certain words, place markers and print and save blocks. It can be called by double-clicking on any text file from the GEM desktop.

You can keep eight text files in memory at once and if there isn't enough memory for the whole file, it is read in bit by bit from the disk. I don't find it the friendliest of text readers though, as you can't use the mouse to scroll through documents simply by clicking, a feature which I'd like to see. It isn't that fast, either.

The ultimate test of a utility like Mouse Tricks 2, however, is how it behaves when installed and what it can do for you.

At the end of the day, it's a mouse accelerator, pure and simple. Forget the bits and bobs – it's turned my mouse into the smoothest, most responsive I've ever had.

It even turns the standard Atari doorstop into something useful, and the only reason I've still got one is because the poor old Falcon has been given one too. For that alone, Mouse Tricks 2 has to be worth the money, even if you do have to spend all weekend working out how the darned thing works!

BOTTOM LINE

FEATURES
So jam packed with 'em it almost hurts!
Excellent / Good / Average / Bad / Appalling

EASE OF USE
A bit bewildering but well worth the effort.
Excellent / Good / Average / Bad / Appalling

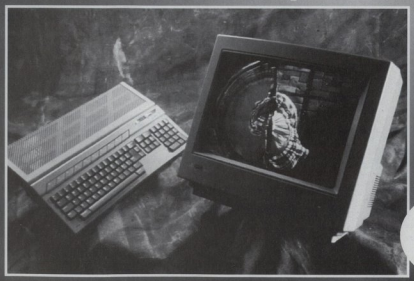
VALUE FOR MONEY
The smoothest, most usable mouse accelerator I've ever known.
Excellent / Good / Average / Bad / Appalling

Product: Mouse Tricks 2
Supplier: ST Club, 2 Broadway, Nottingham NG1 1PS
Telephone: 0602 410241
Price: £9.95
Configuration: All ST/STEs in any resolution

ATARI ST REVIEW

FLY HIGH WITH A FALCON – FREE!

...in ST Review's great easy-to-enter competition



You could be the proud owner of a brand spanking new Falcon with four megabytes of memory and a 65 megabyte hard drive. We're even throwing in MultiTOS and SpeedoGDOS to give you one of the most muscle-bound personal computers currently available. Just think about what you could do with all that power under your fingertips.

AND THAT'S NOT ALL...

We're also including a superb colour monitor from System Solutions, Screenblaster hardware to do justice to the Falcon's graphics, a Citizen ProJet printer, a Yamaha MIDI sound module and oodles of software including HiSoft's *TruePaint*, Steinberg *Cubase* and COMPO's *That's Write 2* and *MUSiCOM*. Even if you don't win the first prize, there are five consolation prizes of *TruePaint* and a dozen *ST Review* subscriptions!

With a total value of nearly £3,500, this has to be the greatest prize ever offered by an Atari magazine!

To enter, all you have to do is buy the July issue of ATARI ST REVIEW, on sale May 27! But be quick – the competition closes on June 30, 1993

Musically inept? Tone deaf? Why not try John the Composer, and let your ST do the creating for you? Ian Waugh investigates

John's music production line. Would you buy a tune from this man?

Johnny Be Goode

John the Composer is one of the most intriguing composition programs to hit the ST for quite a while. It generates four-part compositions – drums, bass, chords and melody line – with or without your help! You don't even need a Midi instrument although the output is much better if you use a synth.

The program breaks the music parameters down into sections. Each of the four music parts has at least two parameters – syncopation and note amount. These are represented on-screen by a line in the edit window.

The higher the syncopation line, for example, the more notes will appear on the offbeat. The higher the line in the note amount window, the more notes will sound.

CHORD PARAMETERS

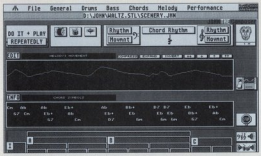
The chord part has two other parameters – change amount and cadence amount. Change controls how often the chords change, cadence determines how far they move from the home key.

The melody part has a movement parameter which sets the difference between the highest and lowest points of the melody.

You can set all these parameters by drawing lines into the edit window so even if you don't understand music you can control how busy the parts are and how they progress over time.

And you can pass control over to John. The more control you give him, the further away from the parameters he will take the music. He will even draw the lines into the edit window for you.

There are icons at the top of the screen for each of the music parts and clicking on these makes John instantly recompose that section. You can select the chords which the program will use and weigh them according to how often you want them to occur.



John's main screen shows the melodic movement in the edit window and the chord progression in the info window

There are many other parameters you can adjust, too. For example, you can specify how closely the melody follows the chord. That is, uses the notes which are in the chord.

There's also a repetivity parameter which is a clever idea and one which plays an important part in the progression of the music. The concept takes a little wrapping your head around.

Essentially, it lets you specify how much repetition will occur within a particular section of music. You could, for example, make the first bar have little repetitiveness but then make subsequent bars follow what repetitiveness there was to a greater or lesser degree. The settings are easy to tweak but the outcome is not always easy to predict.

Music has structured sections such as intro, verse, chorus, coda and so on. John lets you define four music sections – intro, A, B and coda – whose parameters include the time signature, the number of bars and how often they repeat, and whether or not the section will generate triplets.

There is a sub-screen here which lets you experiment with even more complex structures and note durations.

If you want a fairly normal drum track it's a good idea to restrict the drum parameters otherwise it can sound like Cozy Powell on happy pills.

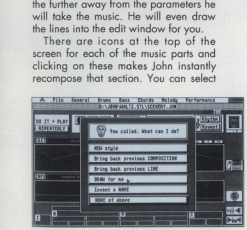
It's also a good idea to work on one section of the composition at a time so you aren't distracted by the other sections. Unfortunately, you can't change parameters on the fly.

When you and John have composed a few pieces you can save different styles into different folders. John can look into a folder and take the styles there on board for the current composition session.

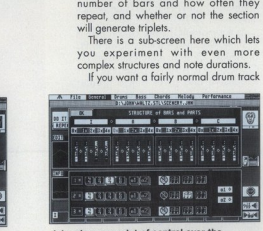
The program looks quite complex but it's quite easy to use. However, you may have to spend a little time getting to grips with some of the concepts. The manual could be more helpful here. It contains some linguistic oddities and needs some worked examples. There were only two demo files on the disk – there really should be more.

So what does John sound like? With careful setting up he can produce rock/pop rhythms but he finds it difficult to produce the highly stylised melodies prevalent in modern music, which is fair. After all, if you wrote a program to produce pop songs, would you sell it?

But John does have moments of inspiration and you can save the music as a Midi file to load into your own sequencer. In fact, this is how it is best used. If you're interested in computer composition, John's your man!



You can call John and ask him to perform a number of tasks



John gives you a lot of control over the structure of the bars and music parts

BOTTOM LINE

FEATURES — Excellent / Good / Average / Bad / Appalling
Lots of parameters to tweak which really do give you control over the music.

EASE OF USE — Excellent / Good / Average / Bad / Appalling
You can use John even if you don't know much about music.

VALUE FOR MONEY — Excellent / Good / Average / Bad / Appalling
One of the cheapest composition programs for the ST.

Product: John the Composer
Supplier: Newtronic, 62B Manor Avenue, London SE4 1TE
Telephone: 081-691 1087
Price: £49
Configuration: All STs, 1Mb RAM

MULTIMEDIA: The marketing myth?

Does the Falcon's biggest buzzword have any substance? Stevie Kennedy delves beyond the hype and uncovers the facts

Of all areas in computing over the past three years, multimedia has to be the champion hot air producer. No other field in recent times has caused more confusion, and no other buzzword has resulted in as many laughable attempts at definition.

Pundits and marketing men, desperate to put their finger on exactly what it is they are being paid to promote, have tried and failed to put the subject across in one glib slogan, with the result that what was a fairly simple concept to begin with has ballooned out of control.

From being just a word for controlling two or more devices, such as a CD player and a VCR, and using them in combination for a single purpose, the multimedia monster has grown to gobble up scanning, digitising, paint packages, and just about anything else the desperate copywriters could lay their hands on.

By far the best approach to this gaseous concept is to try not to encapsulate it, but to define it in terms of its LAN capabilities in one box for less than £1,000. To Atari's credit this is mentioned in their brochure.

These are the all-important players in the multimedia market, the interfaces with which a machine communicates to the devices providing the video images, CD sound, and so on, and without them no number of colours on-screen at the same time will make your micro a multimedia winner.

Again, many will seek to draw your attention to the superb 16-bit sound and the DSP chip's use as everything from a reverb unit to a speech synthesizer.

Ignore them. Digitised speech is a ludicrously expensive exercise in terms of RAM, and 16-bit sound is really only of use in a recording studio. When multimedia is used in action for real, sound and graphics are almost always supplied by CD players or VCRs, both much more efficient and effective at their jobs than computers.

Falcon is best looked upon as a superb control box with the capacity to augment and enhance the audio-visual application, and this is where the Falcon030 steps briskly into the spotlight.

Atari, in their wisdom, have decided that the Falcon is "the first ever personal multimedia system", a claim which is not only difficult to substantiate but which Atari themselves, to judge from their lamentably poor promotional material, do not fully understand.

By waffling on about True Colour mode and the possibility of making the DSP chip act like a modem, Atari are missing the point entirely.

What makes the Falcon unique is that alone in personal and desktop computing, it combines Midi in/out, stereo audio in/out, a DSP port, SCSI and throughput. Take as illustration a typical multimedia display at the launch of a new product.

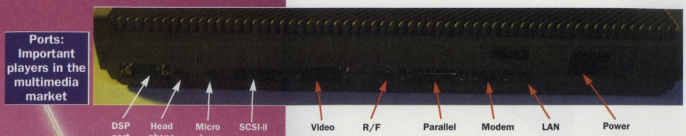
The advertising agency will most probably have called in a consultant and given him or her a commission to produce an interactive display which can be shown to the public then left on its own at the mercy of the sticky fingered hordes. First decision: which machine to use?

At the moment, before Falcon begins to shine, the choice comes down to PC or Amiga. Our consultant chooses the Commodore A3000 (because it is expensive and gives him a greater mark-up), the multimedia presentation package Scala MM200 and a variety of external devices.

Using an IEEE interface and multiple serial ports, the Amiga, despite its primitive 8-bit sound and simple, 16-colour hi-res display, wows the audience with a virtuoso performance of top quality sound and vision. How?

Simple. The underpowered Amiga is acting as a true multimedia machine by delegating all the difficult jobs to machines more suited to those media

Scala is the sort of competition the Falcon is up against



(get it?), controlling in the process a couple of VCRs, a CD player and several banks of stage lights simultaneously.

It does this without recourse to many of its built-in capabilities, relying instead on some excellent software and its multi-talented Zorro expansion slots.

Multimedia is all about promoting the external devices and demoting the computer in the middle of things. No matter how impressive a micro's specifications first appear, it will never be remotely close to even the lowliest second-hand Matsui VCR in terms of its ability to display graphics in motion.

Nor could even the most expanded Falcon match a simple CD Walkman's talent for playing hours of CD quality sound. Controlling these devices and harnessing their talents is what multimedia is all about.

Another shining example is the digital music studio. When the ST first became ensconced in studios across the world, it had awful sound and most music packages used its mono hi-res display mode.

No prizes for machine-based trickery there, but add a couple of Midi ports and the ST suddenly becomes the most indispensable musical tool since a pair of ears.

Rather than make the computer emulate a Roland PCM module by stuffing expensive 16-bit sound chips in it, why not just give it a couple of cheap Midi ports and the ability to control the real McCoy?

Still don't get it, huh? Take genlocking. The Amiga, when it first appeared had a HAM mode which, though useful for static images, was useless for most real-life applications, and the machine's other modes were fairly standard for the time.

It did, however, have one huge advantage – a video friendly output. With internal sync pulse and full video overscan, the Amiga was the ideal video tool and took an immediate lead in the field.

For years the Amiga has suffered from interlace flicker and thousands of us have sneered at the awful eye-watering effect of an Amiga screen in hi-res interlace, but it is exactly this sort of display which video demands.

JOB DELEGATION

This example, though distasteful to ST or Falcon owners, is the ideal illustration of how a multimedia machine must subvert its own ego and pander to the needs of the devices it will be speaking to in order to survive.

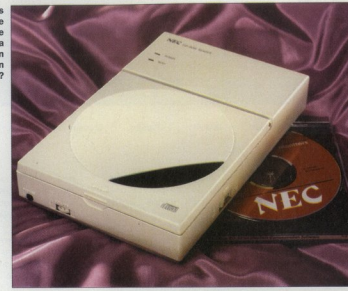
Atari's Falcon fulfils these requirements and that is why it will succeed in multimedia, not because it has a DSP and fancy graphics. The machine's SCSI interface will talk to just about every professional printer, CD-ROM, scanner and digitiser used by Mac and PC alike.

Its LocalTalk-compatible LAN port gives it superb networking capabilities to share huge storage devices; the bi-directional parallel interface enables fast communication in two directions;

➤

Without the extra equipement, multimedia is a empty buzzword

Cheap CD-Rom drives have been at the forefront of the PC-based multimedia explosion. When will the Falcon have its own?



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and an RS232 serial port will be accepted by thousands more peripherals than some interfaces I could mention.

Possibly the only major constraint in the interfacing department is the lack of double-ups. Most desktop machines, including the PC, Mac, and larger Amigas, have a bank of full size expansion slots into which the professional can install multiface cards containing several parallel or serial ports on one board.

EXTRA PORT

Without this kind of expandability, the Falcon might be in danger of losing support, and though devices such as the JVC Interface will help, a more accessible expansion slot or an extra serial and parallel port would be of more use.

When, and only when, Falcon's suitability as a machine to communicate with the outside world has been established, can its incredible array of built-in capabilities be paraded before the public.

Probably the first of these which most users will faint at the sight of is the array of video modes. Countless new owners will no doubt be won over by the photo-realistic quality of a True Colour screen showing more than 65,000 colours at once, and games which take advantage of fast hardware scrolling. The blitter's speed will make Sonic look decidedly like his relatives to be found squished on many a country road.

However, the most important point about the new video modes is that they all offer programmable overscan and genlocking.

Overscan is a technique whereby a computer video signal is forced to use the whole monitor or TV screen rather than leave a black border, and without this attention to the needs of video, Atari's new machine would be about as likely to succeed in multimedia as Billy Bunter in a slimming contest.

Genlocking – not a talent which the ST ever made one of its own – is almost impossible if the signal emanating from a machine's video port cannot be synchronised, or "locked" as the video world calls it, to another video signal.

Falcon's external synchronising input makes for an ideal platform for video genlocking, and the video circuitry's "overlay" mode should render video titling a pifflingly easy task.

The much-vaunted DSP chip is less useful in terms of its multimedia capabilities, but Atari's decision to include a direct DSP interface should lead to some interesting developments in the near future.

FASTEST DIGITISERS

This direct link to the most powerful chip on the motherboard makes possible the connection of the fastest video digitisers yet seen on a home computer and lays open all sorts of sound-based uses such as direct-to-disk sampling and real-time special effects.

Though probably not capable of digi-

For your future entertainment

Easily the most exciting aspect of the Falcon today is the software we are being promised for tomorrow. Everything from True Colour paint packages to professional video titlers are lining up behind the new machine and waiting to take advantage its advanced architecture.

A typical example of what lies in store is Eurosoft's Photo Studio Pro. Based on the same company's Studio Effects program for the TT, Photo Studio Pro makes use of the DSP's speed to provide 32-bit photo retouching and editing.

It is packages such as this, carrying out the behind the scenes hard work, which underpin many successful multimedia events, and the resulting pictures can be used in presentations, art displays, slide shows or video work.

A variety of grabbers and genlocks should also soon be available, including the True Colour Video Digitiser from Rombo, and JVC's Interface, enabling full control over a number of JVC audio and video units, is on the horizon.

The latter is a good example of the sort of new generation multimedia hardware solutions we might soon see, but what about software?

Besides the rush of upgrade software released to take advantage of the new colour modes, Atari users will have to wait some time before true Falcon software begins to appear in quantity.

For every adventurous company prepared to shell out precious development funds in an as yet immature market, there will be another which will play the long game and see how fast the Falcon takes off.

Combine this with the fact that software for the new chips and operating system will take time to reach top quality as the authors get to grips with unfamiliar hardware, and it is clear that there will be no software "explosion" as some have promised.

What there will be, however, is a first giant leap in quality and usability over existing Atari titles. Even with a bugged MultiTOS, Falcon software will offer more colour, more speed, and more usability than on any other home computer.

DSP-specific software such as speech recognition programs, fax-modem software, direct-to-disk sampling packages and a host of other applications which were previously impossible will join the Falcon's multimedia tool kit as the months pass.

Mouth-watering, don't you agree?

tal video effects in real time, the DSP should be capable of producing sound and video effects unique to the Falcon, giving it an edge over machines such as the Amiga and PC.

In this way, the Falcon can be used to control a battery of devices while at the same time enhancing their output by adding digital echo to sounds or picture-in-picture animations to video.

On a cautionary note, the future could hold a few nasty shocks as far as CD is concerned. What has to be the most glaring omission from the Falcon launch, given that this is supposed to be a multimedia machine, is some sort of CD-ROM drive or support.

The Falcon can be connected to a CD-ROM drive using SCSI or the internal expansion port, but no Atari standard exists and the company have said they will not release a CD device until someone establishes one.

This is madness of the most mind-boggling sort. Four years ago, Atari were one of the first companies to realise the potential of CD-ROM when they developed the CDAR-504, but the device was immediately allowed to die and Atari have continued to steer clear of the computer world's fastest growing medium since the floppy disk.

Whatever the reason, the decision to launch without CD hasn't helped the new machine's cause at all.

HUGE AMOUNTS

If only for its capacity to store huge amounts of data in the form of text, graphics, or sound, the CD-ROM player is one of the most important elements in any multimedia setup.

Even the Commodore machines have their own CD standard, if only in the form of the CDTV turkey, and on PCs the format has gone into orbit, despite initial competition over which standard would become accepted.

The longer Falcon is without a CD-ROM drive of its own, the more its chances of being taken seriously as a multimedia workstation will dwindle.

As far as home and enthusiast users are concerned, the innumerable exciting advantages of the Falcon030 will ensure its success – at least in Atari terms – in the games, productivity, and music markets.

But multimedia is an expensive business in which only the more generously salaried home users and the professionals will indulge. We can only hope for now that a CD-ROM unit will soon be available for them.

How this launch cock-up chimes with Atari's claim that the machine is "the first ever personal multimedia system" is unclear, as most personal users will only ever use one medium at once, but one thing is crystal clear.

Atari have at last produced a machine which outshines everything in its price range and a bit beyond. If the Falcon fails, it won't be on technical merit, but on the blundering of its producers.

The competition

Only a fool would ignore the fact that the Falcon has a long way to catch up in the multimedia market, and is way behind more established formats such as the Amiga, the PC and the Macintosh. These three will be Falcon's market competitors for the foreseeable future, so it's worth taking a look at what they offer.

Commodore Amiga

Although a minority machine with more of a reputation for games than anything else, the Amiga has always been a video-friendly computer and has made a niche for itself in the lower end of the video market similar to the ST's predominance in music circles.

Some superb software is available and the Amiga is used in many point-of-sale and public information systems, but whether it can survive as the PC market becomes more multimedia oriented is debatable.

The recent release of much more colourful Amigas has not offset the fact that the machine's own CD format, CDTV, died a death last year.

● *Prediction: The Amiga will continue to thrive in its little niche, but will never be a major market player.*

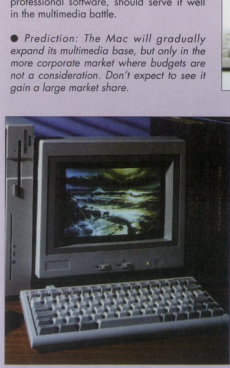
Apple Macintosh

Though often attacked by home users as being too expensive, the Macintosh will always do well in corporate circles. It is easy to use, though not as good a multi-tasker as the Amiga, and has a growing number of superb packages for music and video purposes.

For example, direct-to-disk systems on the Macintosh are already finding their way into professional studios, and a number of multimedia video packages exist.

This, with the Mac's established CD-ROM standard, excellent networking, and professional software, should serve it well in the multimedia battle.

● *Prediction: The Mac will gradually expand its multimedia base, but only in the more corporate market where budgets are not a consideration. Don't expect to see it gain a large market share.*



IBM PC and clones

Initially hampered by its lack of decent sound and graphics, the PC has come a long way in recent years and has seen something of a revolution over the past 12 months. Many companies now supply pre-bundled multimedia setups including sound card, speakers, and CD-ROM, but most of these are used for the excellent CD-based games and little else.

The real PC action is happening in the higher end of the market with products like Video Windows, and there are now many superb professional software and hardware packages on offer.

● *Prediction: The PC has too high a market share to be discounted, and will be the biggest contender for multimedia supremacy.*

CGS ComputerBild
19 Ledbury Place
Croydon
Surrey CR0 1ET
Tel: 081-686 8121
Fax: 081-666 0405

DA's Vector

"Stunning colour and special effects – quite simply the best vector graphics creation tool on the ST." Atari ST Review. This is what enthusiastic journalists have to say about DA's Vector. We haven't space to mention the 3D text effects, 3D bar charts and pie charts, animation, and what we call "Vector Morphing"
£149.00 inc V.A.T.

The Dream Team

During the 1992 Olympics, the USA used the best basketball players in the world to form the ultimate team. Which soon acquired the title of the "Dream Team". Now CGS-ComputerBild bring you the best in Desktop publishing, and Image retouching at the unbeatable price of £299.00 inc V.A.T.
This years 1993 "Dream Team".

Didot Professional + RETOUCHE Professional = £299.00

Didot Professional Colour and Retouche Professional Colour Design £499.00 inc V.A.T. We also supply the Epson range of colour scanners: e.g. Epson GT6500 with GT-Look II software only £938.83 inc V.A.T.
All programs run on the Atari ST(E)/TT/Falcon.

Driving a hard bargain

Andrew Wright looks at a new hard drive option for ST owners thinking about upgrading to a Falcon – a SCSI drive from Ladbroke Computing

There must be plenty of ST owners who haven't yet made their mind up about the Falcon. Perhaps it's all to do with cash flow or maybe just a reluctance to buy a first generation machine. Nobody wants to part with that much cash only to hear of a modified model coming out a few weeks later.

But what do you do if you need a new hard drive now? Buying an Atari compatible hard drive might sound great, but what happens when you want to use it with the Falcon you're going to get for Christmas?

The Atari Megafiles of this world will never be compatible with the Falcon, and most of the others will need some intricate modifications to get them talking to the Falcon's SCSI port.

Ladbroke Computing have come up with one answer. They have just introduced a new range of their highly respected Data Pulse Plus hard drives. The main difference is that instead of a DMA port on the back and a host adapter inside as the older drives had, the new ones have an industry standard SCSI port on the back.

The drive can be connected to an ST using ICD's external host adaptor, The Link, or to a Falcon with a suitable SCSI cable. This makes it perfectly possible for your ST and your Falcon to share the drive, though not, I might add, at the same time!

The Data Pulse Plus supplied for the review is a 127Mb model based on a Maxtor SCSI mechanism.

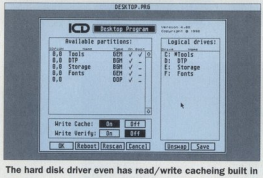
HARD WEARING

The slimline grey case isn't the most stylish around, but it's metal and should prove hard wearing. It is neatly designed with DMA and power switches on the front and easily capable of supporting a monitor.

The drive is pre-formatted with five partitions, C, D, E F and G, and contains several utilities and a few demos including NeoDesk and Midistudio Master. This is a nice touch and means you can be up and trying out your new-found power straight away!

The illuminated power switch is on the right-hand side of the case and the DMA switch for changing the drive's SCSI ID is on the left underneath a drive activity light. No more fiddling with DIP switches!

The Data Pulse is extremely quiet, and a peek inside the case reveals why. There isn't a fan in sight. After a 12-hour session, the case is warm but not alarmingly so and it's still well within the tolerance limits of this kind of device. In a month or so of running it every day, I haven't had any problems at all. The Link is a small adaptor about three inches across that plugs into any standard 50-pin SCSI port such as the one on the Data Pulse. An ordinary Atari hard drive cable can then be plugged into it with the other end in the ST.



The hard disk driver even has read/write cacheing built in

Within seconds of coming out of the case the drive can be switched on, and after a ten second pause to allow it to boot up, the ST can be switched on too. That's all there is to it.

Although the drive is already set up, most users will want to partition it to suit themselves. Software is provided to do it with. It comes on a disk containing the usual ICD utilities, but with a dedicated driver for The Link itself, a brand new installation program, and an extensive readme file on disk noting the changes since the manual was printed.

The manual is a bit long in the tooth now, with no mention of the Falcon, but the readme file is quite comprehensive.

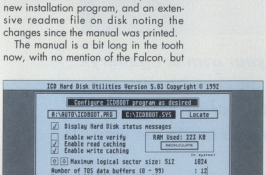
A brand new installation program lets you reformat the drive in a predetermined way with five partitions, including an auto-booting one, and a DESKTOP.INF file and AUTO folder. If you want any other arrangement, the manual is well-written and easy to follow.

The Data Pulse is astonishingly fast in action with a measured data transfer rate of 952k per second and a 24ms average access time. In real terms, it's over three times faster than my old 60 Mb Atari Megafile, which makes a big difference when transferring and loading large files.

Minus points include the fact that there's no room for a SCSI throughport, so you'll need another adaptor if you want to add other SCSI devices. The Link has no internal clock, either.

Overall, this is one of the most impressive hard drives I've come across both in terms of cost per megabyte and overall performance.

Add the flexibility of Falcon compatibility, an option to add a Floptical drive into the same casing for under £300 and a useful, external SCSI host adaptor, and it becomes one of the best buys around.



ICD utilities are excellent for managing your hard drive

BOTTOM LINE

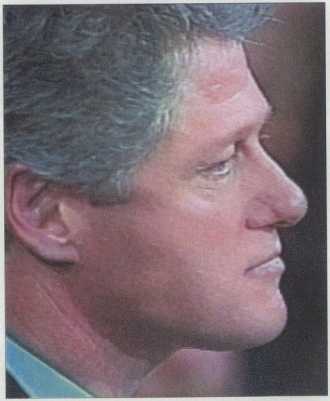
FEATURES
Quiet and fast, with no obvious faults at all.
Excellent / Good / Average / Bad / Appalling

EASE OF USE
One of the easiest drives to set up with a friendly manual and nice software.
Excellent / Good / Average / Bad / Appalling

VALUE FOR MONEY
Very good value in terms of pounds per megabyte.
Excellent / Good / Average / Bad / Appalling

Product: Data Pulse Plus 127Mb/Link
Supplier: Ladbroke Computing, 33 Ormskirk Road, Preston PR1 2QP
Telephone: 0772 203116
Price: £429.99
Configuration: All STs, TT and Falcon

What a view!



Fancy creating your own art gallery? Why not try it on your ST with our quick guide to picture viewing. John Hetherington leads the way

Picture viewing utilities have always been popular among ST owners but some new arrivals have made viewing even more pleasurable than it was before.

Real world pictures such as people and landscapes couldn't be represented properly in the past as the ST was limited to displaying 16 colours on-screen in low resolution. The arrival of the STE only increased the palette – not the number of colours.

Of course Spectrum 512, a cleverly programmed paint package, has been around for a while but it can only load pictures in its own format – the problem is that nobody can originate images by scanning in Spectrum format.

Utilities like Photochrome can now display up to 4,096 colours on-screen on a standard ST, using very sophisticated overscanning techniques. This tends to cause some flicker but it is surprisingly tolerable.

The end result is that any ST owner can now download 256-colour GIF format images from CompuServe or various bulletin boards, pick them up from publications libraries or view scanned true colour images produced on colour scanners.

Over the next three pages, we look at some good programs to start you off and provide a comprehensive guide to the file formats you might encounter.

SPEED OF LIGHT

The latest version, v2.1, of Speed of Light runs on any ST/STE/TT or Falcon and it claims to load and display GIF files faster than any other program.

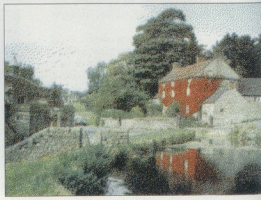
It also displays more than 16 colours on-screen using interlacing, though the documentation doesn't say exactly how many.

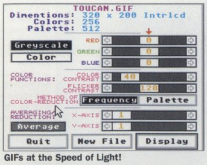
The program uses a technique called "colour vector distancing" to select which colours to display from the original and which to leave out.

There are plenty of user definable parameters so it's best to experiment to get the best display. The results are good and although not as good as Photochrome, it is very much faster.

PHOTOCHROME

Photochrome was designed to emulate a graphics card in that it can display far more colours on a standard ST

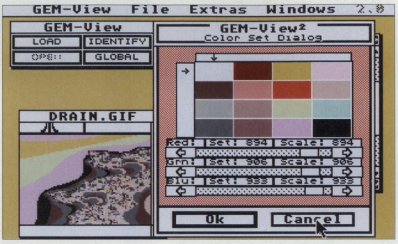




GIFs at the Speed of Light!

Photochrome – there's never been anything like it on the ST

Gemview is a useful picture viewer...



screen than was ever intended. It will load files in IFF, Targa, GIF and VidiChrome ST digitised RGB colour separations (4,096 colours) which it then converts into one of six special screen modes.

Two modes are basically Spectrum modes for the ST and STE respectively. The second two are enhanced Spectrum modes offering better picture conversion. The astonishing modes are the final two.

Number five is Super HAM which is an interlaced mode displaying 4,096 real colours on a standard ST. Even more amazing is Photochrome's sixth mode – up to 19,200 colours from a palette of 32,768 on a bog-standard STE! All pictures can be saved in the program's own PCS Photochrome screen format.

Various "stippling" or dithering options are offered if the image contains more colours than can be displayed and there are two screen modes, error-free and flicker-free, to choose from. Flicker isn't really a problem, though, and the results are really stunning – there has never been anything quite like it before on the ST.

GEMVIEW 2.2

One of my favourite viewers and converters is GEMVIEW, a German shareware program now up to v2.13. It supports GIF (all versions), JPG, IFF, HAM, IMG, SPU/SPC, PCX and Windows BMP pictures as well as the dedicated ST formats like NEO, Degas, Tiny, Art Director and Doodle.

Although the documents are in German and most of the functions have to be largely guessed at, it is excellent for displaying images and information about them.

GEMVIEW works in any ST mode, low, medium or high resolution and supports multiple images in separate windows. In high resolution it will dither images in one of three patterns, Floyd-Steinberg, halftone or an approximation for quick viewing images.

In low resolution it provides a reasonable approximation of colour images but no special tricks are used except straightforward dithering. The results aren't brilliant and it can take a while to produce an image. It also works well with MultiTOS and supports drag and drop viewing.

VIEWGIF 1.2

Viewgif is another useful shareware program, and a particularly useful one for mono users. It runs in any native ST screen resolution and will load GIF, IFF, Degas and NEO images and save in Degas, NEO or Macpaint formats. More than one image can be loaded at once and displayed in scolling GEM windows.

Viewgif also allows a GIF to be transformed into AIM (Atari Image Manager) and Spectrum 512 formats for display using a suitable colour viewer.

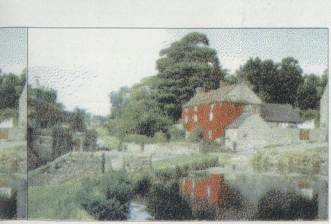
Transformation can be carried out irrespective of the current screen resolution, so monochrome users can produce good results for later viewing in colour. It isn't particularly quick and not as flexible as Gemview but it works well.

IMAGECOPY 2

Imagecopy 2 should be available from the ST Club now. It contains dozens of new features including full Falcon compatibility and true colour support for any ST/STE or TT.

It can load and display colour images in Targa, extended IMG, IFF/LBM, PCX, GIF, BMP, TIFF, and Spectrum formats as well as Degas (including extended) and standard IMG

➤



The difference between 16 colours and more – the 16 colour file on the left looks distinctly grainy while the 256 colours on the right is much more realistic

Dithering around

Dithering is a process by which colour images can be represented on screens that cannot handle the same colour depth as the original. In other words, as you can't display a greyscale image in high resolution or a 256-colour image in low resolution for example, the image has to be dithered so that you can at least get an idea as to what it really looks like.

Dithering often works a lot better if you rescale the original image and make it larger but it can be a slow process, especially if there is a lot of colour information in a file.

At its best, dithering looks far superior to halftoning but there are several different algorithms for dithering images. The simplest form of dithering is the Bayer method which produces poor results but very quickly.

So-called error diffusion dithering techniques are far superior but take longer. Three methods are widely used – Floyd-Steinberg, Stucki and Burkes. Each produces a slightly different result though the Stucki method is generally considered the best.

files. It will also read TIFF files in the slightly different format, TIC and TIH, used by programs such as Didot and DA's Vector, and mono MacPaint files.

Images can be scaled intelligently and printed to a range of mono or colour printers including Epson 9 and 24-pin compatibles, NEC 24-pins, Deskjets, Canon Bubblejets and Laserjet printers.

It will also produce output in the form of an IMG file which makes it an ideal tool for desktop publishing. Images can be halftoned, too, in nine different grid settings up to 16 by 16.

Most versions of TOS will now allow up to six images to be displayed at once and MultiTOS will allow up to 20, although there are still some problems running under MultiTOS.

The author, Jeremy Hughes, has speeded up the program's loading and dithering routines considerably and Imagecopy 2 certainly looks like becoming the standard that other image handlers will have to follow.

The Gulf of Louisiana seen from a satellite – note that you can actually pick out houses and roads as well as silting patterns from the mouth of the Missouri river

Where to get them

Speed of Lite 2.1 – Released in March and downloaded from CompuServe. Should make its way into PD libraries soon.

Photochrome 3.0 – Disk GRA155 from the ST Club.

Viewgif 1.2 – Disk GD1143 from Goodman International.

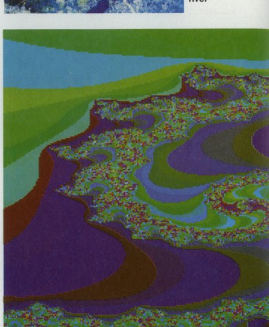
Gemview 2.01 – Disk GRA158 from the ST Club. Later versions are still only available from bulletin boards at present.

AIM – Disk GD389 from Goodman International. Disk GD409 contains some excellent AIM format images too.

QRT Raytracer – Disk GD1330 from Goodman International. It runs from a very unfriendly command line though, so be warned!

Images – Disk SSC122 from the ST Club contains 13 GIF images in 256 colours. Disk GD1898 from Goodman has a wide selection of images in Photochrome's PCS format.

The ST Club can be contacted on 0602 410241 and Goodman International are on 0782 335650. Many other PD libraries will have good selections of colour images – look for Spectrum and GIF formats in particular



A fractal image

Picture formats

AIM – Atari Image Manager format

The AIM format was designed by the University of Delft for its rather odd image processing and pattern recognition program. It supports up to 256 greyscales and can be imported into Calamus.

BMP – Windows Bitmap format

This is an uncompressed format introduced by Microsoft for its graphical PC interface called Windows but there is a variation designed for IBM's OS/2. It supports up to 24 bits of colour.

CP8 – Compressed 8-Bit format

CP8 is a hardware independent format for greyscale and 24-bit colour images of virtually any size. However, it is only supported by one utility, Viewgif, as far as we are aware.

PI5, PI7, PI8 – Degas Extended

This recent invention extends the Degas format to cope with TT resolutions. Thus it can store up to 256 colours from TT low resolution (PI8).

GIF – CompuServe Graphics Interchange Format

GIF files can contain multiple images up to any size with up to 256 colours. This is by far the most popular format and many can be found on bulletin boards and online networks. They are highly compressed with the loss of only a small amount of data.

There are two versions around, 87a and 89a, both of which can be interlaced or non-interlaced. Images encoded using interlacing are saved using four passes instead of just one.

On each pass one in every four lines are saved so if it is decoded in the same way, such as when logged onto CompuServe, you can decide if you want to continue viewing or abort the download after less than half the download has taken place.

IFF/ILBM – Interleaved Bitmap file format

Part of the IFF standard and widely used on the Amiga (much less so on the PC), it was originally used with Electronic Arts' Deluxe Paint package.

Maximum of 256 colours in practice though support for 24-bit colour is present. PC versions can contain a small preview image.

IFF/HAM – Amiga Hold And Modify format

Up to 4,096 colours and used almost exclusively on the Amiga.

IMG – GEM IMG format

Normal IMG files can handle mono or 256 greyscale images. An extended version, called XIMG, now supports up to 256 colours.

JPEG – Joint Photographic Experts Group format

An up and coming standard using so-called "lossy" compression to reduce the size of real world images dramatically. It supports up to 32-bits of colour.

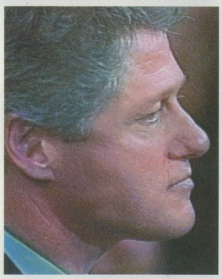
JPEG compression means you can often download true colour pictures taking up under 100k!

Every picture tells a story

These images come from 256-colour GIF files downloaded from CompuServe forums. There is a vast range available on every conceivable topic from classic cars to old masters and rare birds. The satellite shots are particularly interesting but there's almost bound to be something for everyone.

A NASA Hubble telescope picture of the Orion Nebula, a star-forming region 1,500 light-years away

A GIF file of the TT



There are plenty of pictures of famous people for viewing too

PCD – Kodak PhotoCD format
Kodak's proprietary PhotoCD format isn't here just yet but it will be making its presence felt very shortly, even if only on the Falcon. Software available in France and Germany, Colour Disc PCD, allows proprietary Kodak PhotoCD images to be read in via a CD-ROM drive connected to the TT's SCSI port.

The exciting thing about Photo-CD is that you can take your roll of 36 holiday snaps to any Kodak CD centre and walk away with a CD-ROM disk.

With the right software and plenty of memory, you should be able to retrieve any of the pictures in PhotoCD format, convert them to more usable formats like TIFF and use them in any DTP package. There's no need for a 24-bit colour scanner!

The images have the format IMGxxxx.PCD where xxx is the number of the image on the CD-ROM. Several scans of each picture will be available at different resolutions so you should be able to use a low resolution version for layout and a high resolution version for final artwork.

PCS – Photochrome Screen format
Used only by Photochrome and a few related utilities (see mini-review above).

PCX – PC Paintbrush format
There are several variants in the PCX format, derived from a paint program on the PC called Paintbrush. It can handle up to 16 colours (older PCX v3.0) or 24-bit colour (newer v5.0) and is compressed.

PNT – Prism paint format
Used in Lexicor's Prism paint program, it can handle up to 24 bits of colour when used in conjunction with graphics cards. There are TT low resolution files (256 colours) available for download in some CompuServe forums.

RAW – QRT Raytrace format
Output from the QRT raytracer using 24-bit colour but only 320 by 200 pixels in size.

SPU/SPC – Spectrum 512 format
Uncompressed and compressed versions of Spectrum 512 format pictures, only 320 by 200 in size, containing up to 4,096 colours for display on the STE (only 512 can be displayed on an ST). Up to three palettes are allowed for each display line, making 48 colours per line.

TGA – Truevision Targa format
The Truevision Targa format is used by high-end image processing and video editing systems. It can store eight, 16, 24 or even 32 bits of colour and can be compressed or uncompressed.

TIFF – Tagged Image File Format
TIFF is world standard image format but unfortunately there are scores of variations, some involving compression. The TIFF Huffman and TIFF Pack Bits formats only support mono images but others, mainly the TIFF LZW and uncompressed versions, support up to 24 bits of colour.

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

Write Now

Meeting a standard

Although it is easier to look back with the benefit of hindsight, isn't the story of the STE, as Darren Smithson hinted in May's issue, one of one missed chance after another?

When I was looking for a successor to my antique Dragon 32 I looked at the Amiga and PC clones before deciding to splash out on a 1040STE.

Did it never occur to Atari that their STEs would be more saleable if made easily interfaceable with third-party peripherals?

Two in particular stand out. One concerns the visual display – why could it not be made VGA standard, even if only offering the bottom standard of 640 x 480 pixels?

It is here where the PC – especially the AT and subsequent series – scores with its many expansion slots, whether these are 8 or 16 bit.

Even the Falcon barely seems to reach the middle of the display ranges, and while the TT can surpass even the SVGA resolution it is still necessary to obtain a special monitor from Atari to display the top resolution of 1,280 x 960.

The second concerns the hard disk interface. Again, why couldn't Atari have stuck to a common or garden SCSI interface instead of using what amounts to their own?

A third consideration relates to the CPU. As is now realised, although the original 8MHz 68000 was quite fast when the ST series first came on the scene, it now looks slow compared with the Intel 80x86 chips.

At the very least, building the STE around a 16MHz or faster version of the 68000 would have kept it abreast with competitors from the other field. What about the 68010 – said to be at least pin-compatible with the 68000 – or even the 68030?

As it is, it looks as if Atari have lost a number of opportunities to make them a force to be reckoned with in the home computer market.

Barry Gowland, Buckinghamshire

If Atari had implemented the changes you suggest they would have made a better computer, but would the end result have helped buyers of the machine?

Being an STE user you will be well aware that there is a lack of software designed specifically for the computer, and of the compatibility difficulties at the start of its life.

Extra differences between the early STs, STFMs and STEs would have made the incompatibility problem even greater and resulted in far fewer programs being available for the STE.

The Falcon is not intended to be part of the ST range, making a faster processor and industry-standard ports possible without there being a big fuss about incompatibility.

Passing on the cost

I have been buying your magazine for two years and have found it informative and interesting – in my opinion the best of all ST magazines.

Unfortunately, since your last price increase I will not be able to afford my favourite magazine.

As a schoolboy on a limited income, £3.40 is beyond my means. I cannot see how you can justify a 20 per cent increase, particularly in today's economic climate. Sorry, I will not be contributing to your magazine any longer and I hope you will take note of the above points and consider younger readers such as me.

Andrew Sage, Suffolk

We held off a price increase for as long as possible for the very reasons you outline in your letter, but unfortunately we have now been forced to do so.

The last time we increased our cover price was August 1989, almost four years ago. Since then our costs have risen; paper, print, disks, staff salaries – the list goes on.

During the same period the ST market has shrunk, leaving fewer readers and advertisers to support the magazine. We try to keep our price as low as possible.

Keeping the market alive

My 11-year-old son has just bought an Atari 1040ST after saving hard for more than two years.

His delight was short-lived, however, because he has since been told by some local shops that they no longer sell Atari software because there is no demand for it.

A local computer shop now tell us that they cannot remember when they last sold an ST, despite assuring us a few weeks earlier that they were not being phased out.

Can you assure my son that he has not spent all his savings on a machine that will soon become obsolete?

Mrs E Baskett, Suffolk

Yes, the ST market is in decline but there are still many hardware and software products to keep your son hooked to his computer for some time to come.

Even if no more STs were sold, there are around 750,000 users in Britain alone who will be hungry for support for quite a few years.

Atari ST User will help your son get the very most from his computer and keep him up-to-date with new products that are released – both leisure and home productivity.

STFM for £159 shocker!

I have just read the shocking news in your magazine about Atari re-releasing the 520STFM for £159.

Are they mad? By releasing this machine they have really kicked the STE. Who wants to buy a machine that has dated technology and, most importantly, is difficult to upgrade?

A lot of people who buy the machine will not want to play games on it all day long, and so will want to upgrade its memory in order to use more powerful software.

They will find that there is no way to upgrade the machine and thus realise that they have bought a lemon.

Atari say that the machine will be competitively priced against the consoles so to try and get people to buy the STFM instead of the Mega Drive or SNES.

I've never heard such nonsense in all my

No more piracy please

£25 Prize Letter

I have been buying your magazine plus other publications for the last two and a half years and I am beginning to get fed up with the articles about piracy on the ST.

I own a 520STE upgraded to one megabyte and know of five other ST users in Exeter. Not one of us uses pirated software.

I also know of five or six Amiga users and every one of them uses pirated programs – in fact one had a copy of a game within two days of it being released.

I would not take pirated software even if it were offered to me.

R C Evans, Devon

Although you and your friends avoid illegal copies of software I can assure you that there is a big piracy problem with ST packages.

It loses software houses huge sums of money each year, and at a time when many firms are looking closely at their future in the ST market causes great cause for concern.

Games players are the first to complain when companies leave the ST to concentrate on other computers and consoles, yet many users still prefer to copy than pay.

Away from the ST, the computer entertainment industry is very enthusiastic about moving to compact disc-based games. They are much more difficult for average users to copy.

life. There is no way that the STFM can produce the same superb gameplay and graphics of Sonic the Hedgehog or Streetfighter II.

People will buy the console because they want to play solid games, and they will buy a decent computer when they want to do other things.

I don't think people will want to buy an outdated computer with no upgrade capabilities.

Whoever decided that Atari should stop production of the STE and re-release the STFM should be shot. If the order came from the very top then Jack Tramiel should take over again as head of Atari.

If Atari do go ahead with their stupid plans then this will be the death of the STE and no software producer will ever write a program that fully exploits the power of the STE.

All STE owners will be left with is a machine that has no future and its so-called enhanced internals will be rendered useless.

I think Atari should do the following:

- Drop the 1040STE, as it's easy to upgrade a 520STE to 1, 2 or 4 Mb
- Drop the three games in the current 520STE pack and replace them with Sleepwalker and Chaos Engine – two STE games
- Drop the productivity software in the 520STE pack and only include Deluxe Paint and ST Tour

Now you have a decent pack in which the computer can be easily upgraded, includes excellent software that uses the machine's capabilities to the full and contains a superb art package.

Now price this at £159 and Atari will most definitely have a winner.

Simon Townsend, Berkshire

The aim of the 520STFM bundle is not to take over the console market, but to make potential buyers look at the options and notice that a machine with a keyboard offers much more.

Clearly, if the buyer is only interested in playing games then the console will remain the choice, but basic home computing for the ST is ideal.

And, yes, the STFMs now being sold are difficult to upgrade but so too are consoles. This computer is a basic entry-level machine and it's not being sold as anything more.

The STE, we are now told, has not suffered complete death. Atari say they have stopped production to concentrate on Falcon but will make STEs when existing stocks run down.

Your ideas for a replacement STE pack might look attractive, but can it be put together for £159?

German connections...

Is there such a thing as a language program for translating German to English and vice versa? If not, then can you tell me where I can get hold of a German and English dictionary in Ascii so that I can write my own?

G Shields, Glasgow

Goodman International, the Staffordshire-based public domain specialist, distribute a basic German translation program on their disk number GD1192.

You could also try the public domain for dictionaries, although some authors might have restrictions preventing their work from being used in other programs.

Goodman can be telephoned on 0782 335650.

Finding the Falcon answers

Since buying the Falcon030 I have been increasingly amazed by its capabilities and feel I have to write in answer to the bad or maybe incorrect reviews it has been getting in your magazine.

I agree the design could have been better. I thought about waiting for the Falcon to appear in its new style case but after due consideration decided to buy it as soon as it became available.

After seeing what this machine is capable of I would not care if it was in a shoebox – the performance is better than expected, and I had expected quite a lot.

On arrival of the Falcon the one immediate complaint I had was that it does not come with either an aerial lead or adaptor to fit an ST or VGA monitor.

The aerial lead was easy to solve, as I already have two Atari computers.

Once Falcon had been set up, I was instantly amazed by the colourful desktop and icons. I then tried to load some ST packages and experienced some difficulty.

After three days I made a trip to Edinburgh to a well known computer shop where I bought both types of adaptors for the monitors.

The staff were more than helpful and even gave me demos to try. After trying these demos I have never looked back.

The speed of the machine is quite amazing – anyone who uses desktop publishing packages or wordprocessors could not help but be impressed by the speed of the screen redraws and running of the packages.

I wish Atari every success with the Falcon and think it is the way ahead for any serious computer user.

I would not, as some people have, advise anybody to wait for the new style case – it's perfectly good as it is.

Given the right support from Atari, suppliers and magazines like yours, this computer can and will set new standards in the computer industry.

Iain Paterson, Glasgow

Just what "bad or maybe incorrect reviews" has Falcon been getting in this magazine? And where are your answers to them?

The Falcon is an impressive computer but all the good points you make about it have been printed many times before in Atari ST User.

You have chosen to buy the Falcon in its current case, but it is one of Atari's worst kept secrets that their will be a new case design before too long.

Whether the existing case is sufficient depends on individual needs. Would you really advise a desktop publisher to buy a computer in a case without a separate keyboard?

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

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VISA

Roy Stead continues his Othello program and shows how to make C programs far more versatile

Rewriting the language

This month, we'll be enhancing and expanding our Othello program. The first thing to do is generalise the program a little bit, by making use of a little something called Macro Substitution.

Supposing you want to play Othello on a 9 x 9 board instead of the usual 8 x 8 – how would you go about it? To make a change like that, you would have to change every single eight into a nine, and every 64 would have to become 81.

Now, that's a big task even with the program the size it was. When our program grows a little more, that task becomes truly daunting. And if you want to change the board size again...

The simplest thing to do is to define a couple of constants – macros – at the top of your file which give the width and height of the board. And then, wherever you would use the number, just use the name of the constant instead. Defining macros is easy:

```
#define BRD_W    8     /* Board width */
```

Now, whenever we need to use the board width in the code, we just type "BRD_W" instead of "8". And if we decide to use a board of a different width, we only have to change one number – the value of BRD_W – and re-compile the program. If you've finished with a symbol and want to delete it, use #undef followed by its name.

Of course, there is the usual little complication. If you take a look at the get_move() function, you will notice that, to ensure it only reads valid characters from the user, it assumes the board width is eight. show_board() has similar problems.

Thankfully, C provides a way around this difficulty also, in the form of conditional compilation.

Conditional compilation happens when you have a part of your code which you only want to appear in the final program if certain conditions are met.

In the example here then, we would want to use special code to handle different board widths – we wouldn't want the user to be able to type a move in, say, column 15 on a 12-column board.

We write conditional compilation just like the if() statement we looked at last month, but put a hash symbol – # – in front of the statements to get #if, #else and #endif. The #else is optional, of course, as it was with if().

Since the #if/#endif block is read by the compiler as it compiles your program, you cannot use variables in your #if condition. Instead, you use macro symbols. There are lots of examples of this kind of thing in the OTHELLO3.C file on the CoverDisk. A similar HSOTHEL3.C file is provided for HiSoft C users.

Sometimes, though, you are going to want to compile bits of code only when you are using a certain compiler. For example, the Sozobon compiler uses an int as the argument for malloc(), while HiSoft C uses a long. If you want to use a long argument in Sozobon then you would use lalloc().

Happily, all C compilers pre-define a unique symbol or two for you to make use of. The Sozobon C Compiler, for example, pre-defines the symbol SOZOBON. If we use a line like:

```
#define malloc lalloc
```

at the top of our file then the compiler will substitute "lalloc" wherever it finds "malloc" in our code, and so will redirect all malloc() calls to call lalloc() instead. Simple, huh? To allow our program to run unmodified with any compiler though, we should make use of conditional compilation.

All we want to test for here is whether the symbol SOZOBON has been defined or not, so we should use "#ifdef". #ifdef replaces #if, so we write something like this:

```
#ifdef SOZOBON   #define malloc
lalloc   #endif
```

and the macro substitution will be made only when we are using the Sozobon C compiler to compile our program.

This all sounds a little too straightforward for C, doesn't it? You can tell that there's something nasty around the corner, can't you? And this particular nasty is that Hisoft C doesn't handle compiler commands very well.

All of the commands with a hash symbol at their front are compiler commands. Did somebody mention something about a creek? And the lack of a paddle?

Firstly, HiSoft C does not understand "#undef", so you can't delete a macro once it's defined.

Secondly, it imposes strict limitations on the use of #define, with the practical upshot that you can use #define to define a symbol, but not to redefine a library function's name. So our example above, where we redirected malloc() to call lalloc(), will not work in Hisoft C.

Worst of all, Hisoft C doesn't handle conditional compilation very well. Some would say it barely handles it at all, and I would agree with them. There are incredible numbers of undocumented restrictions on the use of conditional compilation in HiSoft C – so many that you should stick very closely to the following guidelines when using that package:

You should ensure that you only use pairs of #if or #ifdef and #endif statements. Don't use #else if you can help it, and under no circumstances should you nest #if/#endif blocks inside one another in a HiSoft C program.

Never conditionally compile only part of a statement – such as just the while() part of a do...while() loop – and make absolutely certain that the code you are conditionally compiling will work within ➤

Hisoft C's limitations, even if it is explicitly set up not to compile when your code is used with Hisoft C.

For examples of all of these limitations in practice, compare the two files OTHELLO3.C and HSOTHEL3.C from within the text editor of Hisoft C. You will have to use the text editor because Hisoft C refuses to even load OTHELLO3.C in interpreter mode.

Compiler commands are not the only way to extend the C language. Another method is to use the typedef statement.

A typedef is used to assign a new name to a variable type. For example, typedef short WORD will allow you from that point on to write WORD instead of writing "short" when casting-to-type or declaring a short integer. You can still use "short" as well, of course.

If this typedef statement doesn't sound too handy, then consider what happens if you switch from a compiler which uses 16-bit ints – such as Sozobon – to one which uses 32-bit ints – like HiSoft C.

If a portion of code relies on a specific size of integer, then use a typedef to ensure that – say – WORD refers always to a 16-bit integer and LONG always means a 32-bit integer. For the rest of your code, just use WORD and LONG instead of int and all will be well.

While I'm on the subject of the size – in bytes – of different types of variables, you might like to know that C provides another function, sizeof(), which returns just that.

So, sizeof(int) will return two in Sozobon (two bytes equals 16 bits), but four in HiSoft C. All of this turns out to be very useful, as we discuss structs which are immensely useful things to have around. While an array or memory block allows you to group together variables of the same type, a struct allows you to group together any number of items of any type you choose, including arrays and pointers.

The syntax to define a struct is very simple. You merely type struct followed by the name you want to call this type of thing and then declare – in braces – the various items which go to make up your struct.

Note that this defines what the struct can contain, it does not declare a variable. To declare a variable to be a struct you merely type struct followed by the name of the type of struct and then the name of the variable.

Putting struct before each and every such declaration, however, can be tiresome, and in any case, you've probably spotted that a typedef would come in handy here, allowing you to miss it out.

It is usual, in fact, to perform a typedef whenever you define a new struct, like so:

```
typedef  struct foo   {
short    foo_x;
char     *foo_str;
struct foo *nextfoo;
}
FOO;
```

This defines a new variable type, called FOO, which is a single structure containing a short integer, a pointer to a char and – oddly enough – a pointer to a struct of type foo.

Notice, by the way, that we have had to use "struct foo", rather than just "FOO", inside the definition. The reason for this is simple – the compiler hasn't reached the end of the typedef yet, and we can't use the new name until it does.

To declare a variable to be a FOO, you would use "FOO foobar", while to make use of the individual items – the fields – in (FOO)foobar or (FOO *)footptr you would put the name of the field after the variable's name, separated by a dot, or by "->" in the case of a pointer to a FOO.

So, to assign two to the short – the foo_x field – in (FOO)foobar you would use:

```
foobar.foo_x = 2;
```

while

```
footptr->foo_x = 2;
```

would do the same to the foo_x field in the FOO pointed to by footptr.

Two questions, I am sure, spring to mind. Firstly, why would we want to use these new-fangled structs instead of good, old-fashioned variable types like shorts and longs?

The main reason is that structs provide a quick and simple way of grouping together and passing around related variables.

Since we want to add a computer-controlled player to our Othello program – which is what you want, isn't it? – then we'll have to pass around a lot of information between our functions to describe the Othello board, the current player and a particular square on the board.

Instead of passing half a dozen separate variables around between our functions, we can just dump them all in a single struct and pass around a pointer to that instead. This alone makes for much faster programs, by the way.

The second question probably has something to do with that pointer to a FOO which we included in our definition of a FOO. Isn't that suspiciously recursive?

Well, yes and no. If we use more than one FOO struct in our program then we could use an array of FOOs. The problem here is that we would have to know in advance how many structures we're going to need.

Another approach is to create a linked list – lots of FOO structures, all linked together because each one has a pointer to the next one in the list.

Since we'd also need to know when we've reached the end of the list, we need a special value of the pointer to show this, and what better value to use than the NULL pointer we talked about last month?

All we do is allocate a single FOO-sized memory block and set its (FOO *)nextfoo field to be NULL. To expand our list, we just do this again, and we use the nextfoo field of the previous FOO in the list to point to the new FOO we want to add.

Linked lists are simple enough to set up and use, once you get used to them. And to help you get acquainted, you will find that OTHELLO4.C (and HSOTHEL4.C) on the CoverDisk has plenty of examples of linked lists in action – check out the get_players() and get_legal() functions in particular.

● *Our Othello program is starting to grow quite large now, so next month we will be looking at ways to split C programs into bite-sized pieces to make them a little more manageable.*

Turn to page 92 for some great C offers

Can you C?

Did you miss out on a free copy of HiSoft C, given away with the April issue of *Atari ST User*?

Or maybe you missed one or more parts to this guide to programming in C?

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Doing it the safe

From epileptic fits to "pheasant plucker's thumb", computers are blamed for a variety of maladies. Where do the myths end and the truths begin, and how should you set up your system to avoid problems? Richard Williams consulted the experts...

The tabloid media has rarely been known to let the facts get in the way of a good story.

Several people with a tendency to develop dermatitis, or inflammation of the skin, find that computer screens aggravate the condition, and suddenly the whole world of computer users are threatened with mutation.

A boy dies during an epileptic fit apparently brought on by use of a games console and Nintendo are practically accused of manslaughter.

Industrial injury claims for RSI (repetitive strain injury) go before the courts and we're all going to be crippled before the turn of the century.

As a home or small business user of the Atari ST, TT or Falcon, are you taking any risks?

The simple answer is that you probably are, but the whole question needs to be looked at in context.

Generally speaking, it seems that stepping out of your own front door is more hazardous than normal use of a computer system in the home.

The main threats are not from component parts of the computer system itself, but from the posture you adopt when using it, and the amount of time you spend at it.

CORRECT MANNER

Having said that, there is plenty of evidence that using a computer system not set up in an ergonomically correct manner can cause serious problems for the user.

Tim Gopsill, editor of the National Union of Journalists' newspaper *The Journalist* and also the union's health and safety officer has files on what he claims are hundreds of journalists whose lives have been affected by RSI.

In extreme cases, RSI can reduce formerly completely fit people to virtual cripples who find it difficult or impossible to perform simple tasks like opening an envelope, or even lifting a glass without spilling the contents.

"RSI is rapidly on the increase," Tim told me from the NUJ offices in central London. "The main reason is that more and more is expected of journalists – people are being overworked and are having to cope with more pressure.

"Ergonomics are important, but however good they are, if people are working ten-hour days without a break, they are seriously at risk."

So beware, all you home or home business users who spend long hours at your machines – you may be at risk, too, especially if there's deadline pressure on you.

Tim continued: "There is a fantastic amount of RSI right now, and hidden RSI – that is, where people suffer in silence for fear of losing their jobs, and really damage themselves as a consequence.

"They could have been helped if they reported the problems earlier, but many have literally seized up before admitting they have trouble.

"Employers accept RSI now – nearly every office has sufferers."

The NUJ currently has 100 claims for industrial injury due to RSI on its books, but Tim maintains the problem is much bigger than that might suggest.

"The total number of sufferers on my database is 220. I get new cases nearly every day, and we will get still more when we introduce a new helpline, which will be a bit like Childline, but for RSI sufferers who want to 'come out'.

"The important message is that it's preventable and treatable if it's caught early enough."

Part of the problem is people not taking a break from their computers. You should take a ten-minute break every hour.

"Doing simple stretching exercises helps reduce risks, and massage and physiotherapy helps as well," Tim says. "A lot of employers are now paying for physiotherapy for their staff."

He is certain there is a big psychological element involved in RSI. The newspaper and publishing business is tight on deadlines and whereas, for instance, a sub editor used to be in complete control of his simple pencil and paper, many today do not feel they are in total control of the software and equipment they use.

"People worry about the control of the machine. If, under deadline pressure, you are not 100 per cent in control of the software, you get very tensed up. The shoulders go up, arms stiffen. This is when major problems occur. "What's required is good software and equipment, proper training, proper ergonomics and properly planned work."

One important point for the mouse-intensive Atari ST/Falcon user to bear in mind: Tim says use of the mouse in the latest generation of newspaper "front end" systems has brought a crop of problems.

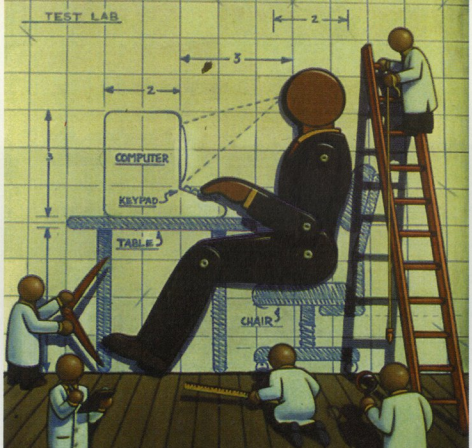
"People should not drag the mouse unless they have to. Clicking to select something is fine, but people tend not to realise what concentrated work dragging with precision really is. It can put terrific tension on the arm.

"There are various answers to this, an obvious one being make greater use of

Follow the ten commandments and reduce the risks

Ten tips for maintaining good body posture, reducing the threat of eye problems and generally enjoying computing without any physical threats:

1. *Be relaxed*
2. *Keep your shoulders down, but don't bend your back*
3. *Elbows should be angled at more than 90 degrees*
4. *You should be as high over the keyboard as possible, but with your feet firmly on the floor*
5. *Use a foot rest if your feet do not make good contact with the floor*
6. *Your chair should be upright or tilted slightly forwards to put weight on your feet*
7. *Use a cushion (Tim Gopsill personally uses a wedge-shaped one) if you can't achieve tip six by any other means*
8. *Your monitor should be level with your eyes. If you do a lot of data input, use a stable, adjustable copy holder, positioned so that there's no need for uncomfortable eye or head movement*
9. *Position your monitor so that there are no bright reflections in it from any source, day or night, to avoid eye fatigue. A good quality screen filter may help, but if you need one, it usually means you have a reflection problem which you should deal with first*
10. *Most important, no matter how rigidly you enforce the above nine rules, take regular breaks from the system*



way

the keyboard, because good software provides a means of achieving with the keys anything you can do with a mouse."

He says the advice he gives applies equally to people using computers at home, including keen games players who spend hours at the screen.

"Probably the biggest threat for younger computer users is to the eyes. Again, regular breaks are the most important thing."

Would an independent expert agree with Tim's view?

To find out, I spoke to Jill Bird, associate consultant with the National Computing Centre in Manchester specialising in the ergonomics of VDUs.

Jill has conducted research into the subject at Aston University, worked on computer systems for air traffic controllers and in the ergonomics section of major glass company Pilkington, and written a book on the subject of computer ergonomics.

On the whole, she agrees with Tim Gopsill, emphasising, as he does, the need for sensible use of computers, regular breaks, and good organisation of work so that people aren't forced to spend long periods at their machines.

She makes a big distinction between using computers in the home and using them at work. At work, some people have no option but to use them for long periods.

At home, that's not the case, although some may throw caution to the wind to complete work on time. At work, physical damage can be an industrial injury. In the home, it's an accident.

"I'm a home user myself, and fall into all the bad habits despite my knowledge of the subject. Offices in homes are usually not particularly suitable for computers – it would be a pretty abysmal home that was designed for the use of VDUs.

"It's so easy to fall into the trap of using any old chair, any old lighting situation. You should really have a specially designed room for it, but like many things, it's all down to a question of cost."

Jill's answers to the main fears are as follows:

● **Eye trouble:** Jill explodes one of the major myths when she gets on to this subject. "There is no eye strain as such, only eye fatigue, which becomes particularly noticeable after using a monitor for long periods. "There is no evidence at all to suggest that VDUs damage eyesight – it's just that they highlight problems people didn't previously know they had. Screens don't cause a deterioration of existing eye-sight problems either. "To avoid fatigue, screens should be non-reflective. The keyboard should be detachable so that the screen can be turned and swivelled.

"Between 450 and 700mm is the ideal eye to screen distance. If you find it hard to achieve this on your desk, try placing the screen at an angle to the left or right, but watch that this method itself doesn't cause strain on your body."

> ***The biggest threat for younger users is the eyes. Regular breaks are important***
>
> **– Tim Gopsill**

CONTINUAL DUTIES

● **RSI:** "It's not something peculiar to use of computers – it used to be called 'pheasant plucker's thumb'! Other workers who experience similar problems include tea pickers.

"Journalists are prone to it because they are under time pressure and so they're already tense. But the people most prone to RSI are those doing continual data entry.

"If we stopped designing tasks that are VDU tasks only which take up virtually the entire working day, we could get away from the problem."

● **Facial dermatitis:** "People ask how computing could possibly affect the face, but it's really quite simple. Static electricity sets up a current between operator and screen – one negatively charged, the other positive.

"Within that field, any dust particles will be attracted by the operator, particularly to the face. If the user has a predisposition to dermatitis, this will aggravate the condition."

Jill stresses, however, that only a small number of such cases have come to light so far.

● **Radiation:** "There is no problem at all with radiation from today's monitors."

● **Epilepsy:** "Computer screens don't cause epilepsy – the problem is already there. Some screens – for instance those with a certain refresh rate – can bring on an attack, but these cases are veryrare.

In the office, people are protected by new legislation initiated by the EEC which came in on January 1 of this year. Fines of up to £20,000 can be imposed on employees who fail to comply with requirements – which basically equate to the common-sense advice from Tim and Jill.

Contact the NCC or the Government's Health and Safety Executive, each of which can provide booklets, on the numbers below for full details of the regulations.

Those who use a computer continually in the home as a main or major source of income, however, could suffer physical problems if attention is not paid to the work environment.

So while all the evidence suggests that by incorrectly setting up the ST you could be damaging your health, follow our golden rules and you'll stay clear of the doctor.

A better chair, a bigger desk, a footrest and improved lighting might seem expensive, but the investment could repay itself many times over.

With the introduction of Calamus S, the monochrome version of Calamus SL with a few bells and whistles removed, Didot Professional has been looking decidedly expensive of late.

Its latest price drop comes as no surprise. It now comes bundled with Retouche Professional for less than its original RRP – surely one of the most attractive buys ever for the budding desktop publisher.

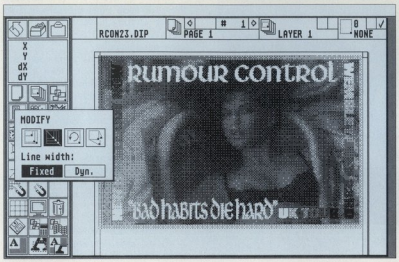
The main question facing most ST users is whether the two-for-less-than-the-price-of-one system will be too powerful to be able to work with, or whether it really does open up new horizons for those who've outgrown the old faithfuls like Timeworks and PageStream.

Didot Professional started out as a Calamus font editor, gradually developed into a vector drawing package, Didot LineArt, and ended up as a complete page makeup program.

Its origins as a Calamus add-on are still evident in the icon-driven interface and the fact that it supports Calamus file formats and fonts.

Retouche Professional, the image processing side of the deal, is extremely powerful. It is also completely output-oriented so that any images produced can be placed straight into a page layout program like Didot, fully halftoned and looking their absolute best.

Two of the ST's most powerful applications are being bundled at a very low price. Andrew Wright investigates



Font handling is top class - with a choice of PostScript or Calamus fonts, what else do you need?

Didot Professional

Didot Professional comes on three double-sided disks with a spiral bound A4 manual running to 130 pages, including a short tutorial. A full colour manual was promised but never printed, though the makeshift photocopied affair contains most of the things you'll need to get you up and running.

To run Didot you'll need an ST, STE or TT with a hard drive and at least 2 Mb of RAM. A 4Mb upgrade would be safer though, as I used to run out of memory on my 2Mb ST when adding halftones and greyscale images to documents.

A high resolution mono monitor is all that is required though there will be more page area displayed if you have something like Overscan or a Reflex

The professionals

Retouche Professional

Retouche Professional comes on two double sided disks with another photocopied manual, this time a spiralbound A4 landscape version. In the words of the developers, Retouche is a production-oriented digital lithography tool for correcting, retouching and outputting 8-bit greyscale or 24-bit colour TIFF images. Although it was designed with the professional user in mind, the program has amazing depth and is packed with powerful image editing

Retouche lets you load images into any of the ten workscreens

features. The manual lists some pretty awesome hardware requirements but rest assured, it will run on a humble ST, albeit more slowly.

The ideal setup is a mono monitor for manipulating the pictures and a colour one for previews and drivers are supplied with the program.

For the average ST owner a mono monitor will be fine if the program is used at a basic level, such as turning scanned images into usable halftones and making limited changes to the images.

If real image processing is to be done – removing backgrounds and unwanted landmarks, for example, or altering the

get together

card installed. The first thing you notice about Didot Professional once it's running is its speed. We're all used to PageStream's maddeningly slow redraws and the sluggishness of Calamus, in all its forms, is legendary.

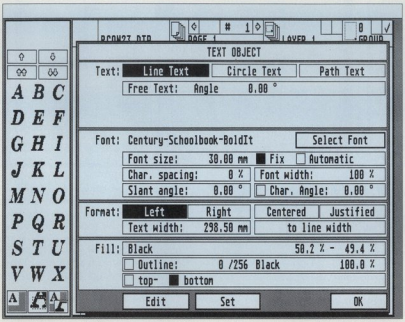
There's none of that with Didot – you can use PostScript fonts on screen, rotate them in any direction and plonk them on top of a greyscale image, and still be surprised when the screens redraws itself, almost as you blink. It works out about four times faster than Calamus and much, much quicker than poor old PageStream.

CLEVER ZOOM

What's more, the clever zoom method makes it very easy to work with an ordinary 12 inch SM124/5 monitor. There are three zoom icons representing the full work area view, the marquee zoom and the last magnification repeated.

To zoom in all you do is click on the marquee zoom icon, draw the area you want to enlarge and watch it appear. You can then go back to the previous level or see the whole work area again. It takes a few days of getting used to, but it is infinitely preferable to scrolling

➤



Colour design is a doddle in Didot

Top end temptations

Home users might be able to buy Didot and Retouche, but the hardware that the professionals use is likely to be a little different. The full 3K-Computerbild prepress system includes the Image Speeder, a fast multi-processor workstation built around an Atari TT030 which includes two add-in boards.

One is an accelerated video display card with up to 4 Mb of high speed video RAM and an Intel graphics co-processor. The other is a screening processor that performs the half-tone screening calculations "on the fly".

Because it uses the image setter's high speed video port, the system has a higher throughput than traditional imagesetting systems. Full A4-sized half-tones can be printed output at 2,400 dpi in well under five minutes from generation on the TT's screen to a bromide hard copy – several times faster than the PostScript based systems in many bureaux.

And the price? A trifling £20,000 or so for the TT, Image Speeder, Linotype-Hell phototypesetter and, of course, the software. Who says Ataris are cheap?

image hue, brightness, contrast and colour – then a greyscale or full colour monitor and graphics card will be required.

The mono version runs quite happily on a 2Mb machine as it can spool large files to the hard disk when necessary, but more memory will make life much easier. It can be very slow on an 8MHz ST as some of the filters and effects take several minutes to apply. The results, however, are well worth it.

FILE EXCHANGE

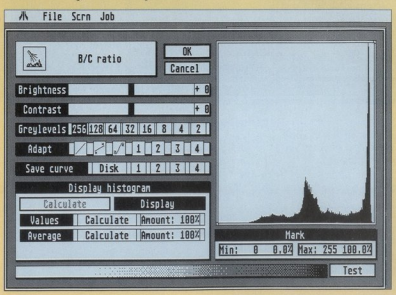
Retouche Pro works with TIFF files although they are not quite in the industry standard format. It does, however, exchange files readily with Didot so the differences are unlikely to be too important. Output can be to GEM IMG, TIFF or PostScript files and images can be given hand-optimised halftone screens for fine control over picture quality.

All the usual image processing tools are available, including pencil, brush and charcoal for drawing and finger, water, spraycan and stamp for blending colours. Images can also be blurred, smudged, softened or sharpened for special effects and there are plenty of useful erasing tools such as the scraper and restorer. Retouche can zoom in up to 16 times normal for really accurate work.

Perhaps the most powerful feature is the masking – vector graphics are used to create masks which protect marked areas of the image when editing. Masks can be saved for reuse, too.

For the professional user there are tools like the densitometer for measuring the amount of colour at any point in the image and the histograms and gradation curves for examining the image in detail. All of these complex issues are

➤



The histogram tool lets you see the exact colour distribution

GEM windows – and many times quicker.

Didot's approach to design is different to that of any of its competitors, although it depends heavily on icons for initial selection of features. It also uses comprehensive dialogue boxes and user-definable hot keys.

The work area represents a large pasteboard on which the design elements such as text and graphics can be laid out and worked on before page make-up.

CO-ORDINATION

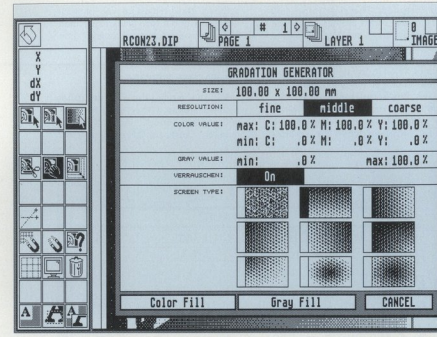
Several pages can be viewed at once and they can even be of different sizes, making it possible to co-ordinate sets of letterhead, compliment slips and business cards, for example, and cut and paste objects between them.

The more objects you add, the slower the program becomes though, and ST owners need to keep an eye on unwanted items that will slow things down. It shouldn't become a problem for those with TTs or accelerators, unless you're really overdoing it.

Vector graphics can be created using the extensive drawing tools, or autotraced using the built-in module that uses Bezier curves on background images or templates in IMG or Degas format.

Libraries are used to hold regularly used objects such as circles and squares or even company logos. Using one is as easy as selecting the appropriate library and pasting the appropriate object on to the page.

Didot can also import bitmap graphics. It will import the non-standard



Gradient fills can be created within the program

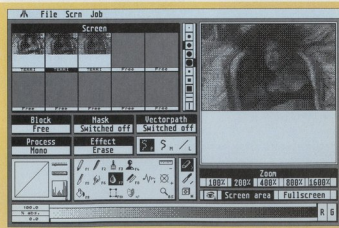
Retouche-style TIFF files directly and others can be converted externally using a supplied utility. The colour version supports full 24-bit colour of course, and there are plenty of colour separation options.

Didot will import and use PostScript Type 1 and Calamus fonts, giving ST users a significant advantage in choice. The integral font editor allows individual characters or even complete fonts to be edited within the program.

Fonts are kept in distinct libraries, which makes scanning through a collection of several hundred typefaces very quick.

Text control is good too – columns can either be standard or free-form and can be flowed around graphics and other text objects. Free-form columns can be shaped and resized using the mouse to almost any shape imaginable, while retaining a high degree of typographical control, including individual kerning, character width and spacing.

Special effects such as colour or grey scales can applied to text, as well as shadows, underlines, and outlines of user-definable thickness. Text can also be rotated, distorted, twisted and even projected on to a fully editable 3D grid.



Images can be edited in Retouche and saved directly for use in Didot

dealt with in the manual although you'll need to have some idea of what you are doing to use them properly.

CONCLUSION

As an integrated graphic design package, Didot Professional is far more than just a DTP program.

It isn't up to the job of handling long documents such as brochures, reports and manuals as it doesn't have features like automatic page numbering, indexing and tables of contents. On the other hand, if you need to manipulate text and graphics and combine them in a short publication, without leaving the user-friendly environment, it has no equal.

Its partner Retouche couldn't be fully described if we wanted to use every page in the magazine – it is one of the most comprehensive image editing tools available on any platform.

For the home user with aspirations, it needs a greyscale or colour monitor plus graphics card to get the most from it as there's little point in trying to successfully edit an image if you can't see at least 256 greyscales on-screen. On the other hand, you'll learn a lot from it, even if you only need to use a fraction of its features.

BOTTOM LINE

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Best value DTP bundle on any Atari.
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Average
Bad
Appalling

EASE OF USE
A joy to use though the documentation could be improved.
Excellent
Good
Average
Bad
Appalling

VALUE FOR MONEY
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Excellent
Good
Average
Bad
Appalling

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WPR09 LEXICON. A pure word list containing 46,209 words without slang, americanisms or other rubbish. Needs 1Mb to run with SPELLONE (spellchecker) also provided on this disk.

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GEN-09 ZX-81 Emulator + lots of programs 'D'
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GEN-12 Formfinder 2.1 (find a winner?) 'S'
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MIDI-18 DX & FB01 editor & librarian 'S'
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MIDI-22 Super Conductor sequencer + utils 'S'
MIDI-09 12 Track Sequencer 'S'

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COM-07 Freeze Dried Terminal 'D'
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COM-06 Mo-Term Elite (for buffs) 'S'

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GRA-27 Mono Pictures (43 high-res pics) 'D'
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GRA-11 A.I.M. (Atari Image Processor 'D'
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GRA-14 Ani-ST 'S'
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GRA-31 Kid Publisher & Master Doodle 'D'
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GRA-33 Sprite Works 'D'
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GAM-98	Bubbles McGee/Viking + 6 more	'D'
GAM-07	Clowns & Missile (8-bit clones)	'S'
GAM-22	AstroDodge/Subhunt + 10 more	'S'
GAM-28	Question of Snooker/Frogger + 1	'D'
GAM-34	X-word/Bugs/Warrior + 2 more	'D'
GAM-36	Klaxtrix/Entombed/Mr Dice + 2	'D'
GAM-38	Caves of Rigel/Froggy/Harris	'S'
GAM-45	Die Alien Blob (very addictive)	'S'
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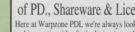

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UTIL-33	Superboot 7.2 + 7 others	'D'
UTIL-04	Disk cataloger & Labeller + 1 more	'S'
UTIL-06	Formatter/Ramdisk + 12 more	'S'
UTIL-10	Gemini, alternative, Desktop	'S'
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UTIL-24	Disk Doubler/Dual Format +12.	'D'
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MUS-29	Energy for You (5 Dance tracks)	'D'
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MUS-21	Hi-Fidelity Dreams As reviewed in March STR, you have just got to hear this! Better on an 'E', Amiga eat your heart out!!!	'D'
MUS-22 to 27	Peeks & Pokes 1 to 6 All these tracks are of the same quality as Hi-Fidelity Dreams (MUS-21)	'D'
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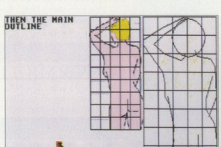


Enlarging a piece of artwork is just one of the many tutorials included in the program

PUBLIC

Jonathan Maddock surveys this month's wide selection of public domain and shareware software

Art Tutor

Programmed by: Castlesoft
Available From: Floppyshop • Disk No ART.3648C

How many times have you been wandering through your collection of PD art disks and sat back and wished that you could draw pictures just as good?

Well, it's probably too many times to mention for myself. I can knock out some half-decent cartoons, but I get really stuck when it comes to drawing simple things like plants and animals.

As if by magic, while digging through the mountain of disks this month I found an art tutor. The program was created using STOS and shows you the ins and outs of drawing good computer art.

Once you've booted it up and admired the title screen, you are presented with a menu. There are six categories – design, heads, cartoon, body language, fantasy and colour. Having decided which subject you want to learn about you are presented with the actual tutorial screen.

The program is controlled via an incredibly basic icon system. There are icons to send you back to the main menu and save the screen that you are on, and two arrows that let you flick back and forth through the pages of the tutor. It is very similar to reading an actual art tutorial book.

This program has the major advantage of showing you how to draw using the ST, plus you get to see the actual finished computer pictures.

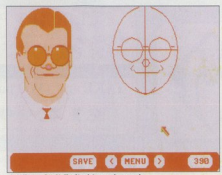
There are several animations in there and it has been written in a very laid back but still informative style.

There are also a couple of other programs contained on the disk. One is the second part of the tutorial in which, among other things, you can learn about drawing animals, plants, perspective and landscapes.

The other program is an actual paint package. At first it looks and feels very basic, but most of the options that you'd find in a professional package are included. It is simply perfect for beginners – well put together, and very easy to use and understand.

Any part of the tutorial may be saved and then loaded up into the paint package. This is a really good idea and the Art Tutor contains lots of grids and basic shapes to get the beginner off to a flying start.

I wouldn't hesitate in recommending the Art Tutor to any beginner or experienced artist with an ST. It's shareware, not PD, so if you use it, register!



Art Tutor isn't limited to nudes and landscapes, you can also draw cartoons

Ramworld 2

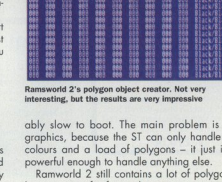
Programmed by: Lee Derbyshire
Available From: L.A.P.D. • Disk No M.107

If you've been keeping your eyes and ears open then you'll probably have seen and heard a lot about virtual reality. VR is quickly becoming big business and not just on the entertainment front.

Scientists are using VR to discover cures for diseases, and architects are using it to walk in and around buildings before they are even built.

The idea – to create your own world and then have the ability to walk around in that world – appeals to me. It's a pretty spaced concept, but there is no way your average Joe punter is going to get hold of an actual VR machine.

What is the chance then, of getting a bit of VR on your ST? Yep, you're right, virtually none whatsoever. There have been attempts though. Take Domark's 3D Construction Kit as an example. The program wasn't bad, but it was very difficult to understand and unbelievably slow to boot. The main problem is the graphics, because the ST can only handle 16 colours and a load of polygons – it just isn't powerful enough to handle anything else.



Ramsworld 2's polygon object creator. Not very interesting, but the results are very impressive

Ramworld 2 still contains a lot of polygons, but is one of, if not the most impressive attempts I have seen so far – and the best thing is the price.

Whereas the 3D Construction Kit is very expensive indeed, Ramworld 2 will only cost you a fiver for the full version which is a real bargain.

This version from L.A.P.D. is the demo and contains only a small amount of worlds and objects. It is fully complete and lets you create, load and save entire worlds.

It is very basic in looks, but the actual creation of polygon objects and so forth is very technical and might take you a while to learn. The disk does come with a very brief tutorial text file in it which explains the basics on how to go about creating 3D objects.

Included on the disk is a small simulation of

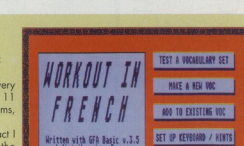
Work Out

Programmed by: Norma Wrangham
Available From: Floppyshop • Disk No EDU 3575C

It's about this time of year where every student dreads getting out of bed at 11 instead of three every day. Why? Exams, of course.

Everybody I know hates them, in fact I don't think there is one person in the world who is remotely fond of them.

What can be even worse is revision. It's not much fun when you know your friends are out partying and you're stuck at home with your head in a exercise book. Revision stinks, but it can be made a lot interesting using your ST. Work Out is a general purpose learning or revision aid. The program is initially set up to help you learn French.



The main menu from Work Out in all its glory...

You are not limited to a subject like French, though, because you can revise almost anything you want. Basically you type in the questions and answers and make up your own

sector

what kind of results you can achieve with Ramworld 2. The simulation lets you walk around and a 3D house. This is very impressive and is a lot better than Domark's Construction Kit.

The first thing that you notice is just how fast the simulation is. You quite literally speed from room to room and everything is very smooth and slick.

Ramworld 2 is one of the best VR computer products I have seen. Anyone who's a bit skint and into polygons is just going to fall in love with the program.

Add Line Up and then warm gently in the oven until cooked thoroughly

Line Up

Programmed by: Charles Edwards
Available From: Floppyshop • Disk No ART 3649C

This program allows you to take three vertically misaligned R, G and B PI1 files and to produce from them three perfectly aligned files which when combined give you a superb multi-coloured image.

Line Up was designed because the programmer's endeavours to make instant RGB grabs had been unsuccessful. In four out of five attempts to grab, failure was the result, simply because the stop frame had not been stable enough.

The program is really simple to use and is just a case of following the on-screen prompts. Line Up needs to have access to the three RGB files and the source disk needs to have enough space to accommodate the output RGB files.

When it comes to the actual lining up process it pays to take your time – it's just a case of looking closely at the screen and using the arrow keys to get an exact line up.

This is the first version of the program and Charles Edwards says that there are some features that can be improved. Line Up is well implemented and if you're having a problem with grabbing pictures, then this could be the perfect solution for you.

In this recipe take three R, G, and B files

Grav 2

Programmed by: Martin Brownlow
Available From: Floppyshop • Disk No GAM 3672C

The best game I found this month. It is very reminiscent of an old ST game, which many of you will have played, entitled Thrust. In Thrust you had to take control of a triangular shaped spaceship and had to "thrust" down and around caves to find an orb. Once the orb was collected you had to fly out into the atmosphere and then you could progress to the next level. What made Thrust so good was the fact that it was so addictive. The knack of being successful was all down to controlling your ship.

A delicate touch was required because the ship had no brakes, so when you thrusted one way you had to thrust the other way to slow down.

Grav 2 borrows most of its ideas from Thrust except that it is set inside rooms rather than caves. Instead of collecting an orb, you have to progress through the level and shoot at least 80 per cent of the emplacements.

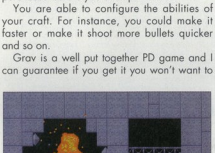
There are plenty of hazards to avoid, most of which are gun turrets. The actual contours of the scenery are your worst enemy and trying to fly through small gaps takes a lot of time to master, but that's half the fun of the game.

Grav 2 is not quite as basic as Thrust, though, because there is a shop from which you can buy extra weapons. Bombs, defence lasers, shields and cloaking devices can all be purchased before you attempt the level.

You are able to configure the abilities of your craft. For instance, you could make it faster or make it shoot more bullets quicker and so on.

Grav is a well put together PD game and I can guarantee if you get it you won't want to put it down. As a bonus, also included on the disk is a game called Chain Reaction. Chain, was featured on *Atari ST User*'s CoverDisk way back in March and is a mixture between Tetris and Columns.

The game is just as addictive as any puzzler of this ilk and if you didn't get March's issue (and why not?) you can now quite happily play it thanks to Floppyshop.



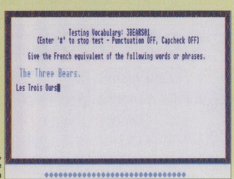
Oh what a personal disaster! One level in and I die a horrible death

revision to suit your needs. You don't have to limit yourself to "school" subjects like French or Geography.

You can, for instance, learn a part for a play, lines of poetry, the words of a song, a sequence of jokes, a speech or even nursery rhymes if you happen to have a small child lying around somewhere. The good thing about entering your own questions or answers is that the questions won't confuse you and you'll be on your own level of difficulty. The program lets you make up anagrams too, which is ideal for a subject like spelling.

I suppose you are even revising when typing in the questions and answers, but ultimately it could be more fun if you asked someone to type them in for you.

Work Out is a very competent program and as far as I know nothing like this has ever been done before. If you want some help revising, then get Work Out.



Oh dear I never could get to grips with French, But at least I now know how to say "The Three Bears". That'll come in very useful. Ahem

The Human Skeleton

Programmed by: Mike Duncan
Available From: Floppyshop • Disk No. BUD3638C

If you're ever thinking of being a doctor or nurse then this next program might come as some help. The Human Skeleton is an educational tutorial on the bones of the body.

Once loaded you are presented with a picture of a skeleton, and you choose a body part by clicking on it. A sub section is then shown with a more detailed picture of the body part with all the bones named.

There is also a box with details on the body part and how many different bones there are ➤

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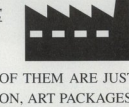

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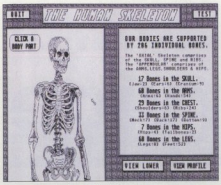


I feel a song coming on. "and the knee bone's connected to the..."

➤

in that particular bit. On the main menu you get to view the whole skeleton, but not all at once – you have to select to view the top or bottom half. You can also choose to view it from the front or from the side. Once you've studied the skeleton and you think you know everything about cuneiform bones and the like, you can take the bone test.

You then get asked 25 questions on bones and the body. If you don't learn the skeleton properly you'll fail miserably. Each question is greeted with a round of applause if you get it right, but you get a bark from a dog(?) if you get it wrong.

Overall The Human Skeleton is one of those programs that you are either interested in or not. If you do like this type of thing then you'll be very impressed with Mike Duncan's effort.

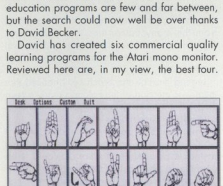
Super Jumble/Sasha/ Talking Jumble/ Alphabet Monkey

Programmed by: David Becker
Available From: Goodmans International • Disk No GD1955 & GD1957

Whenever you see educational software these days, whether it be full price or in the public domain, it always seems to be in full colour. I suppose this seems like a good idea to many simply because kids like to look at a colourful and bright screen.

This is a major problem for parents who own mono monitors and want to help their kids to learn their ABCs and 123s. Mono education programs are few and far between, but the search could now well be over thanks to David Becker.

David has created six commercial quality learning programs for the Atari mono monitor. Reviewed here are, in my view, the best four.



Super Jumble is so versatile that it can even teach your child sign language

Attention all PD libraries

If you wish to feature in *ST User*, just send any of your titles which you feel worthy of review to: Public Sector, Atari ST User, Europress Enterprise, Europa House, Adlington Park, Macclesfield SK10 4NP

Please include a list of the contents of each disk detailing the program name/s and what they are. This ensures quick assessment and inclusion into the magazine.

If you are a shareware author, send in your latest creation along with a list of libraries who will be distributing your program/s thereby achieving maximum publicity.

Super Jumble is a set of 26 squares, each with a letter of the alphabet on, which are then jumbled up by the computer. The user has to put them all back in the right order. Once you've put them back, then the computer tells you how many moves it took you to do it.

Now this could seem a bit limited, but you can customise the program to jumble up anything you want. Examples that come with the program are numbers, Hebrew letters, a short story and even sign language.

Certainly the most bizarre educational program is Mathematics with Sasha the Siberian husky dog. Sasha helps your kids practise multiplication, addition and subtraction. Every time they answer correctly, an animated Sasha barks and gives them a "cat". If they answer wrong, Sasha whines.

The cat is just a small icon at the bottom and every six cats you get represent one level. At the end of every five levels a new surprise animation and digitised song appear. There are five surprises and then the winner gets to see Sasha's puppy!

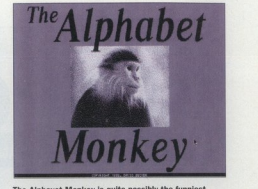
Sasha won't penalise your child if he/she gets an answer wrong. After three incorrect answers Sasha will let you child peek at the correct answer, so that he/she can progress.

As parents you configure the program to choose the numbers used in the times tables. Sasha – as well as having a bizarre title – is one of the best educational programs in a long time. It's both interesting and entertaining at the same time.

Talking Jumble is very similar, but can't be customised and instead just concentrates on your child's ABCs. The program jumbles up the letters and it's up to your child genius to put them back in the correct order by pointing and clicking with the mouse.

That's nothing new, but this program actually talks. Your child can point and click on any letter to see what it sounds like. A real human voice speaks the ABC's and shows your child the correct order of the letters, even when they are all jumbled up.

The program is ideal because a child can



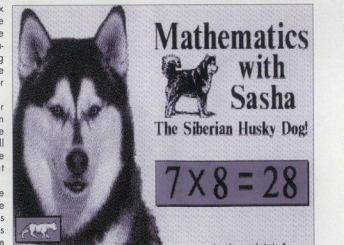
The Alphavet Monkey is quite possibly the funniest education program I've seen in long while...

essentially learn without you there to help. Talking Jumble is a nice, well made program.

Almost on a par with Sasha for total weirdness is Alphabet Monkey. It helps very little ones learn the letters of the alphabet and the keys of the Atari keyboard. This simple program displays a hilarious animated monkey that talks. In a high and squeaky voice the monkey asks the child to "press a key".

Every time your child touches a key, the monkey then squeaks out the correct letter. The Alphabet Monkey has kept certain members of staff in the office highly entertained and I'm not mentioning any names. It is guaranteed to generate hours of fun for your child.

Each of these programs are of excellent quality, most of them containing brilliant digitised sound and really good animations. If you've wanted some education software for a mono monitor then look no further than David Becker's collection.



Bizzare just isn't the word. What is the world coming to?

Where to get 'em

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technical letters • problems • suggestions

ADVICE service

Darren Evans, Advice Service, Atari ST User, Europa House, Adlington Park, Macclesfield SK10 4NP

Flipping mouse

Help! Why does the mouse cursor on my1040STE frequently, and randomly, invert its vertical direction after file loading and saving operations? This irritating problem has only arisen recently, particularly when using the Write On wordprocessor.

Graham Taylor, Watford

Oh dear. It seems you have contracted the infamous Ghost virus. I suggest you obtain a good virus killer and check your Write On disk with it.

Also, I think you will find that the Ghost virus has been transferred to many of your other disks too so I would set some time aside to completely check entire disk collection for infection.

The best way to safeguard your disks against viruses is to write protect them and always virus-check any disks you are given. If you suspect you have a virus in memory, switching of the ST's power for approximately 30 seconds should get rid of it.

Stereo Master saved

I've just bought the Stereo Master sampling package and it brought to mind a question. I have an external drive for my 4Mb 520STFM. If I use drive A to run the sampling program, can I use drive B to save new samples?

Otherwise, I am going to need a several disks containing both the program and samples. This doesn't seem to be an effective use of disk space. I'm sure this would be relevant to other applications but, being new to computing, I don't know the best course of action.

Adam Slingsby, Sheffield

There should be no need to save any samples on to the program disk. Once Stereo Master is loaded, the disk can be removed from the drive.

Therefore, if you have a one disk system, it would simply be a case of inserting a blank disk into the drive and then saving the sample onto that.

Those with an additional external drive will have the bonus of being able to have two blank disks to save their samples to. Telling Stereo Master to save to drive B instead of drive A is simple.

Just click on the save icon and the ST's files selector box will appear. On ST's with TOS 1.2, you will need to click the mouse on the Directory line, which will probably contain A:*.AVR or A*.RAW depending on what save format you have chosen. You can then edit the line, replacing the A: with B: This will redirect all output to drive B.

This clumsy way of changing the directory and drive has been made much easier on later versions of TOS. The file selector on these machines includes a bank of drive buttons for each drive or hard disk partition available. In your case, it would then be simply a matter of clicking on the B button to switch output to drive B.

Alternatively, if you can't afford a TOS upgrade, you can obtain a replacement file selector utility such as Little Green Selector or Selectric from most PD libraries or the commercial Universal Item Selector from ST Club on 0602 410241.

These replacements are put in the AUTO folder of your boot disk and whenever a program calls the ST's file selector routine, the replacement is activated in its place, offering a greater range of features and improved performance.

Memory downgrade

Please, please help. I have recently upgraded my 1040STE's memory capacity to 4Mb and am now experiencing problems with some of my games. An example is my Knightmare game, written by Tony Crowther. Before the upgrade, the game worked fine. However, it now fails to load properly.

Other games seem to be fine with some of them benefiting from the extra memory. Is there anything I can do to rectify the problem? Is it a faulty memory board which I will have to send back?

Paul Clemens, Newcastle

There are indeed some games that do not like being run on a 4Mb machine and Knightmare is one of them.

I can only assume it is due to an unfortunate oversight on the part of the programmer but it in the case of Knightmare it is easily overcome.

There are utilities in the public domain that, when run, fool your 4Mb machine into thinking it has less memory (512k or 1Mb). You can also achieve the same effect by setting up a large RAM disk. I tested a utility, called 1040ST.PRG with Knightmare, and the game worked perfectly. These utilities are extremely common and most PD libraries will have them in their collection.

Got any tips, Guv?

If you have any words of wisdom or know some hot tips that will make the universe a nicer place to exist in with an Atari computer, send them in and gain instant fame among fellow Atarians for being a thoroughly clever *Homo sapiens*.

I'll even send the best tipster a neat piece of software from the *Atari ST User* version of Fort Knox, aka the goodie cupboard. So get scribbling and send your tips to the Advice Service address shown on these very pages.

ST monitor to Falcon

This may seem like a silly question, but I was wondering if, when I buy a Falcon030, I can still use my good old Atari SC1224 colour monitor with it, or would I need to buy a VGA monitor to achieve a greater degree of image quality than that available through connecting a TV through the Falcon's television output?

I am told that the monitor output on the Falcon is a 19-pin D-type male connector.

L Whitworth, Glasgow

Fear not, those of you with any Atari monitor, colour or mono, can still use it with the Falcon. However, an adaptor is required. The same holds true if you want to connect a VGA or multisync monitor too as they invariably have 15-pin D-type male connectors on them.

Unfortunately, and somewhat annoyingly, these adaptors are not supplied with the Falcon, which, without the adaptors, can only be connected to a TV.

However, not wishing to be too negative, I am informed by Atari that the adaptors will only cost in the region of £9.99 – considerably less than those for our Amiga 1200 f riends who have to fork out approximately £25.

Which monitor?

Having visited a recent computer show, I came away with the usual bag load of brochures from the many companies that were there. One of the more interesting ones was that from Atari about their new Falcon030 machine.

Leafing through the brochure, I noticed that there was mention of the Falcon's many screen modes but it failed to give details on the characteristics of such modes.

Being quite experienced in computers, I would assume that certain modes are only available on certain monitors. Would it be possible to print a list detailing the various attributes of each mode and which monitors they apply to?

L Brandon, Huddersfield

There are indeed various modes available on the Falcon and some are only attainable on certain monitors.

Fortunately, a helpful chap at Atari Corp, namely John Townsend, has produced a list of modes for the Falcon. Turn to the monitor

feature on page XX for further details about each.

Demo desires

I have had my 1040STE for a year now and I am quite proficient at Basic programming. However, having seen some of the amazing demos that are around for the ST, I would like to attempt writing one myself.

I realise that Basic is a little slow for achieving the kind of graphical wizardry that you see in some demos, so what language should I be looking to learn?

B Brownlowe, Warrington

The only language that will allow you complete control over the hardware in your ST as well as the speed performance is assembly language, the preferred choice among both games programmers and demo coders.

DevpacST 2 has long been regarded as the best assembly language development system for the Atari ST and we gave away the complete program manifest on the June CoverDisk. If you missed this issue, call our Order Hotline on 051-357 1275 for availability.

What's to go?

I have heard that when the consumer version of the Falcon030 is released, it will be missing a few ports compared to the developer version.

Some rumours abound that one of the ports to go is the SCSI II and enhanced joystick ports. Is this true or are the rumours about as credible as Hanibal Lector joining a vegetarian society?

J Thorpe, Scarborough

There has been no official confirmation about whether any ports will be missing from the "consumer" version of the Falcon. However, I can't believe Atari will take away the SCSI II port.

Considering Atari's strong emphasis on the Falcon as the ideal multimedia computer, omitting the port would abolish the ability to easily connect multimedia hardware such as CD-ROMs. So I think SCSI II is here to stay.

It would, in my opinion, also be a mistake to remove the enhanced joystick ports. Considering the improved graphics and hardware that the Falcon offers the games programmer, it would be a shame to limit the similarly improved and more sophisticated games that will undoubtedly appear to a joystick that only offers eight directions and one Fire button.Games such as Streetfighter 2 and the like would be much more playable when used with a controller with, say, three buttons. Just look at the popularity of console games which already use well-endowed control pads.

With regards to what is actually going to be omitted from the consumer Falcon, popular belief is that the cartridge and VME bus will be the ones that get the chop. Again, this isn't official so we will just have to wait and see.

Floppy problems

I have a 4Mb Atari 1040STE with an external double-sided disk drive. Recently, I have been experiencing problems in that when copying from drive A to drive B, I frequently get the "Disk in B is write protected error" when it isn't write protected at all!

Up to now, I have overcome the problem simply by specifying drive A as the destination disk and drive B as the source disk. However, I have recently bought a 50Mb hard drive along with a couple of PD hard disk backup programs from Goodman's PD library called Vault and Hardup.

I am unable to backup my hard drive as it seems to need both drive A and drive B to backup to and because of the write protect error with drive B, the backup process aborts.

I would appreciate a solution to the error with my drive or, alternatively, a backup program that works with a one disk system.

E Smithson, Plymouth

Considering you can read data from drive B without errors, the drive's head seems not to be damaged. Therefore, the problem may lie with the actual write protect mechanism inside the drive. There are two types of write protect mechanisms that I have come across – mechanical and optical. Mechanical mechanisms consist of a tiny "pole" which sticks up, below where the write protect notch on a disk will be when inserted.

If the write protect notch is open (write protected) then the pole is not pushed down but simply pokes through the hole. If it is closed, obviously the pole is pushed down and therefore the ST can determine the condition of the disk.

Optical mechanisms consist of a light emitting diode (LED) and receptor. Depending on the condition of the write protect notch (open or close), light from the LED will either shine through to the receptor or will be blocked, again allowing the ST to check the condition of the disk.

Both mechanisms can be adversely affected by dirt. In the case of the mechanical mechanism, the pole may be sticking in the wrong position, while the optical mechanism may have dirt obscuring the path of the light.

If you feel confident, open up the disk drive and look through the disk opening at the write protect mechanism. Depending on the model, you may have sufficient access to clean away any dirt.

Avoid the temptation to blow into the drive as this may only transfer any dirt within it onto the drives heads, where it can cause untold damage.

Cartridge games for the STE?

I recently bought an Atari 1040STE and, being new to the ST, I have a couple of questions about it. First, I notice that there is a cartridge port on the side of my ST. Are there any cartridge-based games available for it?

Secondly, I would like to upgrade my 1Mb of memory to 4Mb, which will allow me to use my animation programs to the full. I don't intend to do it myself so I would be grateful if you could recommend a company to upgrade it for me.

L Sharp, Felixstowe

There have been no games on cartridge for the ST since it was released. Cartridge-based games would have been more expensive to produce than their 3.5in floppy counterparts so software houses shyed away from the idea.

One company who specialise in memory upgrades for the ST are Marpet Development. It is also worth remembering that they have developed a memory upgrade board that can extend your current ST's memory by a further 8Mb! For more information, telephone Marpet on 0423 712600.

Count those bombs

Sometimes when I am using my ST, it will "lock up" and print a number of bombs on the screen (usually three).

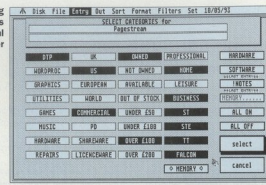
I have been told that the actual number of bombs indicates the error that has occurred but I can't seem to find any information in the ST manual that lists the errors.

Could you please provide a list of the errors so I can at least swear at my computer knowing what has actually gone wrong?

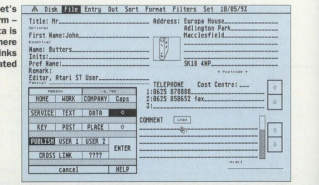
N Sharp, Newcastle

The actual number of bombs that appear do indeed indicate the type of error that has occurred. Below is a list of the annoying blighters.

Error description	*Number of bombs*
Reset: Initial PC2	*1*
Bus Error	*2*
Address Error	*3*
Illegal Instruction	*4*
Zero Divide	*5*
CHK Instruction	*6*
TRAPV Instruction	*7*
Privilege Violation	*8*
Trace	*9*
Line 1010 Emulator	*10*
Line 1111 Emulator	*11*
Unassigned, reserved	*12*
Unassigned, reserved	*13*
Format Error	*14*
Uninitialised Interrupt Vector	*15*
Unassigned, reserved	*16-23*
Spurious Interrupt	*24*
Level 1 Interrupt Autovector	*25*
Level 2 Interrupt Autovector	*26*
Level 3 Interrupt Autovector	*27*
Level 4 Interrupt Autovector	*28*
Level 5 Interrupt Autovector	*29*
Level 6 Interrupt Autovector	*30*
Level 7 Interrupt Autovector	*31*
Trap Instruction Vectors	*32-47*
Unassigned, reserved	*48-63*
User Interrupt Vectors	*64-255*



Classifying entries makes data retrieval much easier



NameNet's entry form – data is entered here before links are created

Mark Phillips looks at NameNet, a novel database that claims to offer much more than standard name and address managers

Most people use ordinary address books or Filofax-type organisers for names and addresses but that doesn't mean they are ideal. One thing they do have in their favour is speed – it's still just as quick to look up "Smith" in an index as it is to run a computer program to do it for you.

Computerised databases score well in their flexibility in searching for half-remembered names or addresses – you may have forgotten the person you need to contact was called Smith but you may remember his company or where he lives.

A quick search through any computer database, entering a location or company name, will produce the result in no time.

If you're 100 per cent sure you only need a database for names and addresses, there's little point in trying to wade through the manual for Superbase Professional.

Hence there is a growing number of dedicated address databases. They are characterised by their relatively inflexible field layout – it's often hard to add other information – but they work very quickly and are usually available when you need them.

CONVENIENT

For example, That's Address should be released quite soon by Compo. It is an accessory that stores information based on personal and company details and communicates directly with That's Write, the wordprocessor, to make letter writing quick and convenient.

Once you've found your name and address, you press a button and it is placed effortlessly in your letter, formatted and ready to go.

Another option is Address v1.6 from the ST Club. It can handle labels, envelopes and dial telephone numbers with a modem attached. Although the main program is standalone, an accessory is available to retrieve names, dial numbers and send text to many applications via the keyboard buffer.

A third option is available, though, and it offers much more powerful data handling than the other two, albeit a somewhat steeper learning curve.

NameNet was written by Roger Derry, a Bristol-based broadcasting consultant, mainly because he needed such a program for his own work. The result is v2.7 of his program, now being sold by System Solutions. Proprietor Karl Brandt was so impressed he threw away his existing database and he claims the extra speed it offers, as well as the powerful cross-referencing, makes a big difference.

The NameNet Address Manager is supplied on a double-sided disk with a

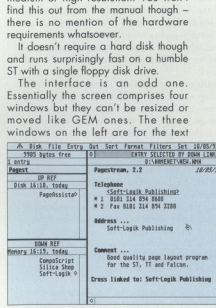
Names in

printed 46-page manual in the form of an A5 booklet.

Installation is straightforward – pop the disk in the drive and off you go. It will run on any ST/STE/TT or Falcon with 1Mb or more of memory in medium or high resolution. You won't find this out from the manual though – there is no mention of the hardware requirements whatsoever.

It doesn't require a hard disk though and runs surprisingly fast on a humble ST with a single floppy disk drive.

The interface is an odd one. Essentially the screen comprises four windows but they can't be resized or moved like GEM ones. The three windows on the left are for the text



The entry for PageStream 2.2 – it is cross-linked to Soft-Logik Publishing so that information is displayed too

input, up links and down links. Anything typed in appears in the upper left window – filtering is as easy as typing the first letters of the desired name and hitting Return.

A link is an attribute given to any data entry to tie it to another entry. For example, an entry for Europress Enterprise might well be linked to an entry for John Butters, *Atari ST User*'s editor. Whether a link is upward or downward doesn't make any difference – it can be though of as a long chain of separate links.

On the right is the main screen. This is where all the data is displayed, depending on which entry is selected. If filtering is off, the whole database can be browsed using the arrow keys and if the entry is a long one, the up and down arrows help scroll through it. The slider bars in the window can be used for the same purpose.

To filter the entries is easy, as we've seen. To bring up and entry for Europress, you need only type an E (to view all entries starting with E) and then scroll through.

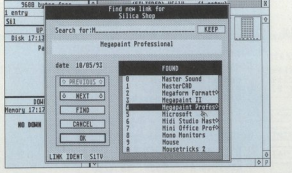
Typing "Eu" would be quicker, of course, reducing the list of choices and typing Europress would get straight to the point.

EASY MOVER

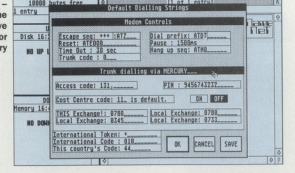
Once you have a chosen entry, the links are displayed in the two left-hand windows. Double clicking on the links brings up these entries, so navigation is very easy indeed.

The other aspect of data handling is the allocation of types and classes that the program allows. Entries can be given one of 12 type classifications, ranging from Home, Work, Company, Service, Text, Data, Key, Post, Place and Publish as well as two user-definable ones.

Most of them are self-explanatory but Text and Data are for storing information such as PIN numbers, credit card numbers, etc, and Key stands for key field. You can, for instance, create a key field called Restaurants and then



Creating a link between Silica Shop and one of their products



Setting the modem – note the extensive support for Mercury

link each restaurant in the database to it.

Classes are slightly different – entries can be assigned more than one class. For example, Atari could have the classes Hardware, Computer and Company while Europress could have the classes Company and Publishing.

Any combination of classes can be used to filter data – filtering on Hardware, Computer and Company would produce Atari – plus IBM, DEC, Hewlett-Packard and Commodore, of course! It is a very powerful system that means you can track down the information you need in the shortest possible time. Examples of NameNet in use are only limited by the imagination. A given organisation, perhaps the governing

the Net

body of a school, probably has several committees looking after different aspects of school life. Some governors may be on more than one committee so to keep track of them all, entries are created for each committee.

Note how flexible the system is – entries don't have to be just names and addresses. From this entry, links are created to each of the governors on the committee and in this way, you can produce a list of committee members practically at the click of a button.

Other entries can be classified into various categories – Atari-related addresses such as dealers, for example, or just friends, business contacts and others.

This makes navigating round the database very easy indeed. For example, I've set up a database of Atari-related products including software, hardware and repairs.

Take the entry for PageStream v2.2, the DTP package. It is cross-linked to Soft-Logik Publishing so the telephone number is displayed in the main window.

Up and down links are present to Silica Shop, the main UK distributor, and two utilities that go well with it – CompoScript and PageAssistant.

Clicking on either of the latter two would reveal links to the suppliers of these programs, Compo and the ST Club, as well as other links to other programs. In this case CompoScript is linked to GhostScript and UltraScript while PageAssistant is linked to CalAssistant SL, another similar utility from the same source.

A major advantage of the linking system is that is one address changes, or the contact at a company changes, it requires only one entry to be amended and it will be reflected in all the cross-linked entries.

As we've seen, NameNet supports modem dialling. For those of you without a modem, what this means is that you can select an entry and ask NameNet to dial the number for you through the modem. It then sends a message when someone answers and you pick up your handset. It's as simple and as easy as that!

NameNet is fully Mercury aware and even supports the cost codes that Mercury subscribers can use to track their phone bills. It knows all about the 131 access code and the Mercury ten-digit PIN number which is encrypted for security.

SPECIAL FILES

Several special data files are included on the disk. One lets you enter the old London 01 numbers which NameNet then converts to the new format using the database file. Among the other files is an International dialling code database so that all you need to do is type "France 12345" and NameNet changes it to 010 33 12345 or +33 12345, depending on your choice.

When other telephone numbers change in 1995, NameNet users won't be worried – the author has planned ahead and provided instructions on how to convert the numbers across.

Output is fairly flexible though some people with less common printers might have to put some effort in. Epson dot matrix and IBM Proprinter drivers are supplied and there is additional information for OKI and Deskjet users.

Drivers for other printers will have to be created using the program's printer code screen. NameNet also supports the full character set, including the more esoteric characters used in foreign languages and names. Output can also be directed to Ascii or Firstword Plus files, to be processed via more upmarket printers.

The main problem is the manual. It lacks readability – add spelling mistakes I can forgive, but the curious mixture of small typefaces and the squashed layout make it very hard to get going straight away.

POWER-PACKED

There's no section dedicated to getting you up and running with your own database, for example, and the learning curve must, as a result, be steeper than necessary. The interface isn't entirely intuitive, either, and despite having set up my own database on it, I'm still feeling my way around.

NameNet is undoubtedly a powerful program and if you need very fast retrieval of information, perhaps for telephone support or whatever, but can't be bothered with the cumbersome programming of a database, it can't be bettered.

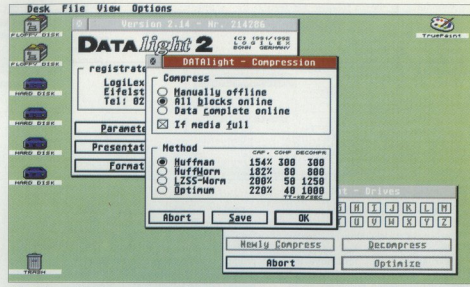
BOTTOM LINE

FEATURES
Powerful address manager with some clever features.
Excellent / Good / Average / Bad / Appalling

EASE OF USE
Less than intuitive interface and uninspiring manual.
Excellent / Good / Average / Bad / Appalling

VALUE FOR MONEY
For hassle-free address management at the speed of light, look no further.
Excellent / Good / Average / Bad / Appalling

Product: NameNet v2.71
Supplier: System Solutions, The Desktop Centre, 17-19 Blackwater Street, East Dulwich SE22 8RS
Telephone: 0753 832212
Price: £49.95
Configuration: All ST/STE/TT and Falcons



DataLite's user interface consists of multiple windows and push-button operation

Quarts into pint pots

Andrew Wright gets more out of his hard drive with HiSoft's new disk doubling program

Back in the early days of ST computing, hard drives of 5, 10 and 20Mb were quite common. They seemed positively cavernous at the time, especially when compared with the original single-sided floppy disk that managed to store 360k of data.

Anyone who is still soldiering on with such a beast will be finding it quite tight on space, but a hard drive is a pretty big investment. When you've forked out several hundred pounds on a new one, even if it was a few years ago now, the last thing you want to do is sell it off and spend even more on a higher capacity model.

You could add a second bare drive inside the original casing of course, but there is a third option. HiSoft have just taken on distribution of a brand new disk doubling program from Germany called DataLite 2.0.

A disk doubler is a piece of programming wizardry that fools your ST into thinking it has a much bigger drive than it really has by compressing the data as it is written to the disk and decompressing it whenever you read it. The whole process is carried out "on the fly", so that it is invisible to anyone using it.

DOUBLE THE SPACE

On powerful computers like the TT and Falcon, DataLite can effectively give you double the amount of disk space or more, depending on how much speed you trade off against compression.

A lower figure can be expected on standard STs as higher compression ratios become just too slow for comfortable use.

For those with old, very slow hard drives however, HiSoft claim that there can even be an improvement in overall speed. The reason is that although it takes longer to compress the file, using more CPU time, the smaller file can be written or retrieved more quickly from the disk itself. If you've a very slow drive, such as an old 20Mb model for example, it can work very much in your favour.

DataLite is supplied on a single sided floppy disk and consists of four files, an AUTO folder program, an accessory, the driver itself and a readme file. The manual is being translated and produced by HiSoft, so the standard will no doubt be good – even the first draft translation of 30 pages or so that was supplied for the review told me just about all I needed to know.

The files have to be copied into the AUTO folder and root directory manually and the system rebooted.

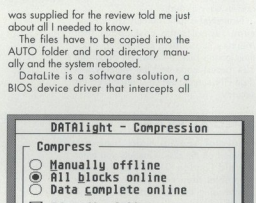
DataLite is a software solution, a BIOS device driver that intercepts all read/write operations to the specified disk. Data is divided into blocks, compressed and then written to disk.

The whereabouts of each individual file is kept in a list rather like the operating system's File Allocation Tables so that when the data needs to be retrieved, the required blocks can be accessed and then decompressed.

It works on both floppy and hard drives, but you will need to have a hard disk driver compatible with AHDI 3.0 or higher. This covers most hard drives including those with the various ICD drivers such as The Link or AdSCSI and the IDE drive in the Falcon.

All the work is done via the control panel (see the accompanying step by step guide) and there are plenty of options for the more adventurous. Cache settings can be altered – these are the areas of RAM used by the program to store data during compression.

The manual recommends as much RAM as possible be allocated to DataLite's caches, but the improvements only seem marginal. There didn't appear to be any clash between the read/write caches used by the ICD disk



Compression type has to be selected first – Huffman is best for an ST but TT owners can choose higher levels

Getting more megabytes

The first step after installation is to decide which partitions to turn into DataLite drives and which to leave alone. The boot partition (or floppy disk if you can't auto-boot) must, of course, remain unchanged but any others can be converted, data and all.

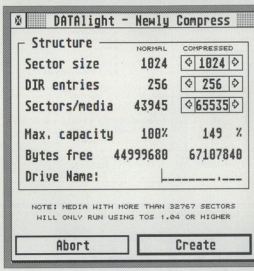
Speed stakes

The table shows the result of some tests on a fast SCSI DataPulse drive (reviewed elsewhere this issue) and the internal IDE drive of a Falcon. The times are for file copying 1.5Mb of mixed files from one partition to another. The SCSI drive was tested using a Mega ST running at 8MHz (standard) and 25 MHz (Turbo 20/25 accelerator).

Although the Falcon's overall figures are a reflection on the disappointingly slow internal drive, there is less degradation in performance with DataLite owing to the faster processor and data bus.

From	*To*	*8MHz*	*Falcon*	*25 MHz*
DataLite	DataLite	116	71	45
Normal	DataLite	87	58	38
DataLite	Normal	49	37	21
Normal	Normal	13	24	10

Note: DataLite partitions were compressed using the Huffman method and fully optimised. Normal partitions were optimised with Diamond Edge.



The next dialogue shows the drive details – my 44+Mb partition looks like it's about to grow to 67!

driver and the DataLite caches. Four different options for compression are offered, but a note of caution has to be sounded here. The program defaults to the optimum setting, claiming an average 220 per cent compression, but this is pretty slow on a standard ST as the data is first analysed for the best compression method and then compressed.

ACCELERATED

In fact, it can take up to 25 times longer to write to disk, making write operations no faster than using a floppy. The fact that this is the recommended "optimum" setting reflects the German origin – they all seem to have accelerated TTs over there. The best option, and the one recommended by HiSoft, is to select the fastest method, Huffman, though this will reduce the compression from the estimated 220 per cent down to around 150 per cent. Intermediate options include Huff/Worm (around 182 per cent compression) and LZSS/Worm (around 200 per cent).

DataLite uses a form of multitasking when it works – it hands control back to the user every few seconds (you can adjust the setting if required) so you can get on with your work while the program optimises partitions. For example, accessing another accessory while the process is going on lets you carry out whatever action you like, and as soon as you quit control is handed back to DataLite. You can even write to a partition as it is being optimised.

Floppy drives can be compressed too, which can be handy for storage, as it is theoretically possible to get around 1.8Mb from a standard disk. Most floppy drives are so slow that the drop in speed is much less noticeable.

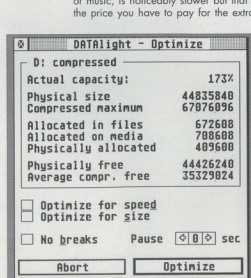
The timed results show that an ST performs considerably slower under DataLite when copying files in bulk, though this is unrealistic in the extreme. Most day to day work involves loading and saving small files at frequent intervals and here the slow access is much less noticeable.

Reading (decompressing) is much quicker than writing (compressing) so most programs will load perhaps twice as slowly – no big deal really as long as you're not hopping in and out of programs every couple of minutes.

Loading fonts and overlays is obviously slower too, but it's easy to forget about the compression system when you're beavering away. Saving large files from within a program, as in DTP or music, is noticeably slower but that's the price you have to pay for the extra space. With a little forethought, it's easy to work out new working practices. If you do work with large files, saves are best made to an uncompressed partition and only put away in a compressed one at the end of the session. Programs like Timeworks, which loads overlays from disk, work best from uncompressed partitions, but there's no reason why the clip art, fonts and text can't be stored in compressed ones.

DataLite gets on surprisingly well with other programs. The only conflict I came across was with Codehead's Hotwire, and that only amounted to an irritating warning message that didn't seem to affect operation.

Every other application on my hard disk worked just as before, though some sector editors and programs that look closely at the disk structure will probably cause problems. Quick Index didn't enjoy being asked to test the DataLite partitions either and promptly crashed. But on the whole, compatibility looks very good indeed.



It can take a few minutes to carry out the optimisation and compression depending on the amount of data

DIFFERENT PARTITIONS

The biggest omission is that you can't specify different compression algorithms for different partitions and have the program automatically remember them.

This would be ideal for ST owners and provide for long term, highly compressed but slow storage partitions and faster, less compressed working ones. You can set up a system manually but you have to remember the method chosen when writing and optimising each partition.

DataLite is a well-written program that makes disk compression very easy. If you have a small, slow, overflowing hard disk, DataLite should give it a new lease of life as long as you don't expect more than a 50 per cent increase in space.

If you're a power user with a TT, a Falcon or perhaps a Mega STE and you can't justify the expense of another drive, it will double your disk at a minimal cost in access time. If you're stuck in the middle though, with a reasonably fast hard drive and a plain vanilla ST, don't expect all that much.

BOTTOM LINE

FEATURES
Flexible enough to make a difference to any system but ST owners get less out of it.
Excellent / Good / Average / Bad / Appalling

EASE OF USE
Final manual should be good but it's very easy to install and use.
Excellent / Good / Average / Bad / Appalling

VALUE FOR MONEY
The cheapest way of adding a few more megabytes to your hard disk.
Excellent / Good / Average / Bad / Appalling

Product: DataLite
Supplier: HiSoft, The Old School, Greenfield, Bedford MK45 5DE
Telephone: 0525 718181
Price: £49.95
Configuration: All Ataris with AHDI-compatible hard drives

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Have you ever counted the number of uses for a text editor? Whether it's for editing your ASSIGN.SYS file or making last minute changes to a program, few of us can do without them for one thing or another.

A really good one is worth its weight in gold, which is why companies like HiSoft have put a lot into programs like Tempus 2. It is fast and it is extremely powerful, with a mind-boggling array of functions. To many users, however, the frills are totally unnecessary – all they need is a basic editor for carrying out quick changes to Ascii files.

PD and shareware utilities are ideal for the casual user and there are plenty around. Look hard enough, in fact, and you'll find early shareware versions of EdHak in many PD libraries. The author has obviously decided that the program warrants more serious attention so the latest version has become commercial software.

EdHak is being packaged and sold through Douglas Communications. The program comes on a single-sided disk inside a moulded plastic box. The printed A5 booklet-style manual runs to 50-odd pages and covers just about everything from basic installation to using the program with other utilities.

SEVERAL VERSIONS

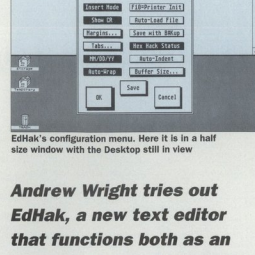
On the disk are several files, including v2.37 of the accessory version of EdHak. There is a disabled demo a cut-down version of the program called Diary which has fewer features, and two small utilities for sorting files and searching and replacing odd characters. There are also some helpful text files, most of which are now included in the printed manual.

EdHak can be renamed with a PRG extender and used as a standalone program. As an accessory, it uses a minimum of 77k of RAM, with only a small default buffer, so many users will prefer to use it in *.PRG form.

The other advantage of using it as a program is that you can set it up to load every time you double click on a file with a certain extender, such as *.TXT.

Selecting EdHak from the accessory list or running it as a program opens up a small window taking up about half the screen. It can be resized to take up most of the screen using the GEM button at the top right but there are only two options – large or small – which can be irritating.

A single word, Menu, appears inside the EdHak window's move bar and



EdHak's configuration menu. Here it is in a half size window with the Desktop still in view

Andrew Wright tries out EdHak, a new text editor that functions both as an accessory and a program

Hacked off

moving the mouse over the word causes a double drop-down menu to appear, with 18 options ranging from open a file to quit.

Although everything can be accessed using the mouse, there are keyboard short-cuts for everything and they are listed at the back of the manual. There is also an online help function that lists scores of short-cuts for those struggling to learn how to use EdHak.

A number of configuration options are offered using a separate dialogue box called from the main menu. The most important is the buffer size – while using a small buffer won't stop EdHak from loading part of a large file into RAM and keeping the rest accessible on disk, an irritating message appears every now and again when the next section needs loading.

I found the minimum buffer setting adequate for most tasks but then I've got a fast cached hard disk and an accelerated ST. Most floppy disk drive users will need to set larger buffer sizes to avoid annoying disk accesses with big files.

There are three main operating modes for EdHak. Text mode is for everyday use as a text editor and programming tool. It displays all 255 Ascii characters except line feeds. Carriage returns are optional.

TRIAL AND ERROR

In Hack mode, all characters are shown and the lines are 64 characters long in high resolution aligned to the right margin. The third mode is hex mode, in which the hexadecimal value of each character is displayed, again aligned to the right margin.

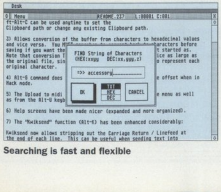
Placing the cursor on any character reveals its Ascii code in the status bar that appears in the window bar itself. The number of the byte or character in the file is also shown, so you can easily find, for example, the 356th byte in a file by a simple trial and error process.

EdHak could be used as a wordprocessor at a pinch, as it has all the familiar features like search and replace, word wrap, block cut, paste and delete and up to ten 80 character macros corresponding to the ten function keys.

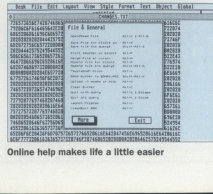
It supports the official Atari clipboard and works with QuickCIS, the CompuServe offline reader, and STalker, the comms package from Compo, that uses EdHak instead of STeno as a capture buffer.

One interesting facility is the Qwikkseed feature. A block of text of any size can be selected using the mouse or function key markers and transmitted straight into a waiting application as if you had typed it in yourself!

It uses the ST's keyboard buffer and worked well with That's Write 2 and PageStream. Use with PageStream opens up all sorts of possibilities, allowing you to create text in an editor and send it straight to the page in the exact font and type size you choose!



Searching is fast and flexible



Online help makes life a little easier

BOTTOM LINE

FEATURES
Some useful features and good flexibility.
Excellent / Good / Average / Bad / Appalling

EASE OF USE
Simple to operate though the menus could be neater.
Excellent / Good / Average / Bad / Appalling

VALUE FOR MONEY
Cheap 'n' cheerful but only worth considering if you really need it.
Excellent / Good / Average / Bad / Appalling

Product: EdHak
Supplier: Douglas Communications, PO Box 119, Stockport SK2 6HW
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N.B. Due to the large variance in design of the Atari ST, there is a small minority of boards in existence which may require a little soldering.

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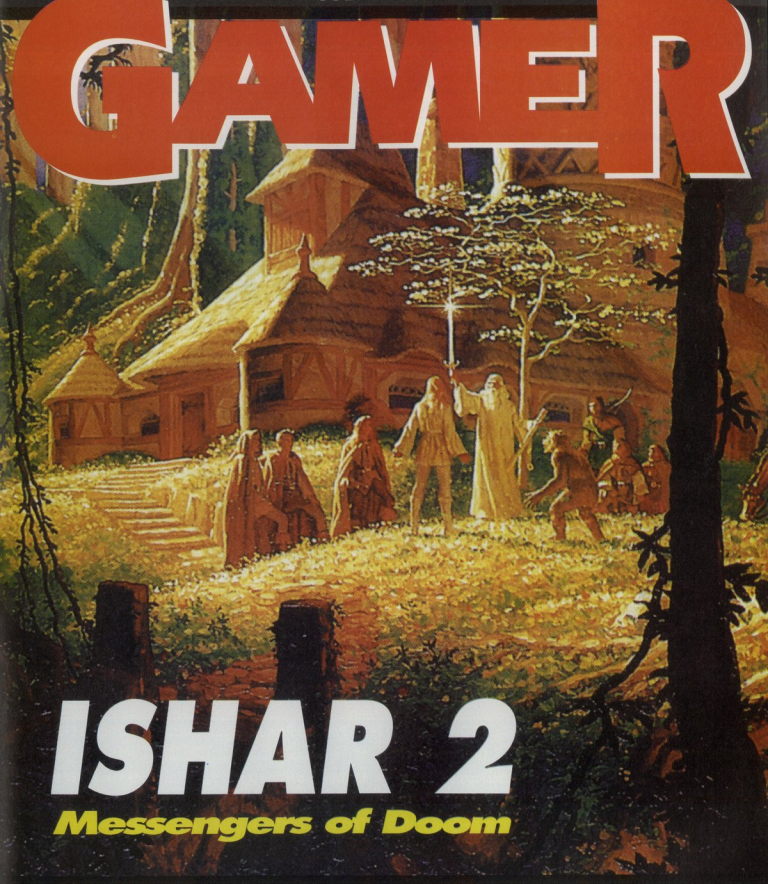
JULY 1993

GAMER



ISHAR 2

Messengers of Doom

REVIEWS... SUPER CAULDRON • FIREHAWK • SINK OR SWIM • ISHAR AND TRANSARCTICA ON THE FALCON • AND MUCH MORE

ALSO... BLAST FROM THE PAST • CHEAP SEATS • ISHAR MAPPED AND CHEATED • GALLUP CHARTS • THE PATRICIAN PREVIEWED • ALL THE LATEST GAMES NEWS...

Gamer GLOBE

Hey wanna know what's new and happening in the world of ST games? Well, take a look at these pages then...

Everybody walk the dinosaur...

Ocean are out and about on the movie tie-in front and have signed the biggest and most expensive film of 1993. Mr Hype is once again rearing his ugly head as you can tell from the following paragraph taken from the press release:

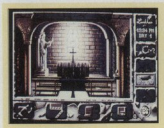
"When the gates of Jurassic Park open, audiences will gain entry to a world they have never even imagined. A combination of scientific discovery and visual imagination, grand in its scope and diversity of life." Jurassic Park – The Film is being directed by Steven Spielberg and is based on the book by Michael Crichton. It is a story about a theme park with a difference, one that contains real dinosaurs which have been created using bioengineering technology.

The film will feature a stunning array of life-like visual effects like nothing else ever brought to the screen. Its worldwide premiere is on June 11 and it makes its European debut in July.

That's on the big screen, but details are being kept underwraps for the small screen version. The game will be multi-level and promises to feature some revolutionary techniques.

The designers have been in close consultation with Spielberg himself and have had unrestricted assess to the special effects department, stills, storyboards and the script. The game will feature digitised dinosaur sounds sampled directly from the film's soundtrack. The software is currently under development on both sides of the Atlantic, in Ocean's San Jose and Manchester studios.

If the game is as half as good as the book then it's going to sell by the lorry load.



What a Lankhor!

Everybody knows that French software companies are famous for making completely weird computer games, and Lankhor are no exception. Black Sect is billed as the first French adventure game to take place in the depths of the Yorkshire Moors.

It is to be released even as you read this – unless you decide to read this in November in which case it'll already be out and you'll have heard about it.

The game supposedly features a fascinating script set in the heart of Yorkshire and contains magnificant and realistic graphics full of atmosphere. Included is a brill musical background with fantastic sound effects.

There are 34 places to discover, animations on every screen, and a simple and pleasant icon management system.

These are just a small smattering of features included in the game, but the graphics do look especially good as you can see. Watch out for a preview, or even a review, in the next issue of Gamer.

The Charts

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19	Jack Nicklaus Golf	Hit Squad	£7.99
20	Future Wars	Kixx XL	£12.99

Bargain Daze are here again!

Right, if you take a quick look at Innards over there, go down the page and you'll see that Ishar and Transarctica have been re-reviewed this month because they have just been released on the Falcon.

They are the only two Falcon games available for Atari's new wonder machine and can only be bought from Daze Marketing.

Now this is where the bargain bit comes in. Both games normally cost £32.99, but Daze, because they are all generous chaps, are happy to offer them direct to *Atari ST User* and indeed Gamer readers for the knock down price of £27.99!

If you want to take advantage of this fantabulous offer you need to address your orders to Daze Marketing 2, Canfield Place, London NW6 3 BT. Cheques should be made payable to Daze Marketing. Don't forget to mention that you read ST User/Gamer and love it to bits.

Kiddies' corner

You can't beat a bit of Bully! Alternative Software's next release is Bully's Sporting Darts. It will retail at the incredibly low price of £9.99 and is unique in that it features six popular sports each played on a tailor-made dartboard.

Jim Bowen will not be featured in the game, which is good news for Alternative as it will probably now sell by the lorryload. Expect a full review next month.

Alternative have also launched a new range of home computer games produced especially for 3 to 12-year-olds. The Children's Range is a collection of award winning and best selling titles with many based on popular TV and film characters.

Included in the collection will be current favourites such as Postman Pat, Thomas the Tank Engine, Popeye and The Munsters along with new arrivals Pixie & Dixie, Huckleberry Hound and Alvin & the Chipmunks. All will sell at the low price of £7.99.

Burn baby, burn!

Following their announcement of a ground-breaking deal with DID, Ocean have signed Nik and Mrs Fiend of group Alien Sex Fiend to compose, produce and develop the soundtrack for a game called Inferno, DID's first release.

The soundtrack is being specifically for the CD-ROM versions of Inferno. Although other publishers/developers have co-operated with the music industry before, notably Tim Simenon (Bomb The Bass) and Betty Boo with Renegade, it is believed this is this the first time that such an endeavour has been undertaken in terms of both writing a complete game soundtrack and transferring that sound track directly to CD audio, by any nameband.

Alien Sex Fiend have released 11 albums over the past decade and have a large and loyal following. Their previous hits include Smells like S***, so what the soundtrack will turn out like is anyone's guess. I can see the future and I like it – music and games are becoming very closely linked.

Expect the Manic Street Preachers to provide the soundtrack to Sonic 3 and Suede to secure a deal with Gremlin to do the music for Zool 5 (released 1996).

INNARDS

Swing your pants while you look at...

REVIEWS-REVIEWS-REVIEWS

SUPER CAULDRON 68
Life's a witch and then you get turned into a frog...

SINK OR SWIM 70
Kevin Codner stars in this Lemmings lookalike...

FIREHAWK 71
Code Masters go gun crazy in their chopper...

ISHAR 73
The world's very first Falcon game. About time too!

TRANSARCTICA 73
You wait for ages, then two Falcon games come along

REGULARS-REGULARS-REGULARS

GAMER GLOBE 66
All the latest news from the ST games scene

GALLUP CHARTS 66
All the ups, all the downs and all the ones that don't move

DRAWING BOARD 1 72
Patrican – it's gonna float your boat or something...

DRAWING BOARD 2 74
Ishar 2 is coming to a small screen near you soon

BLAST FROM THE PAST 76
Two golden oldies get another worthwhile look in ...

CHEAP SEATS 78
Got no money? Did you steal this mag then?

CHEAT MODE 80
Ishar gets mapped in part one of this two-part series

SUPER CAULDRON

Hubble bubble toil and trouble in Titus' latest platform romparound

If ever a word deserved to be banned from the computer game world then that word must be 'cute'. Cutesy happy smiling platform games rear their lovely contented heads more often than any other type. I really hate them.

Whatever the subject it is turned into a cutesy frolic. I suppose the designers are trying to impress the kids, but if any of them had taken the trouble to ask a few then they might have brought out a better class of product.

Consider the facts. Kids like Arnold Schwarzenegger in Terminator, but they don't like him in Kindergarten Cop.

Kids don't want bloomin' cutesy bunny rabbits, flowers and heroes that fire hearts as weapons. Kids want death and killing! They want muscle-bound heroes with a gun that fires bullets as big as a house.

They want aliens and monsters that will tear open the hero's stomach and devour his intestines. They basically want everything that isn't in a cutesy happy-go-lucky platform game. This genre has just about had its day now. I can't really see anything coming out that is going to be better than Zool or Rainbow Islands.

The last remotely dark platformer I can think of is Switchblade 2 and even that was a bit wet and more futuristic than anything else.

If ever a computer game contained mass killing and plenty of blood 'n' guts and was well done, then I honestly believe it would go straight to the top of the charts. There has been a lot of press hype about the fact that computer games influence kids to go out and become criminals, but in fact they are no more to blame than films and television. Kids aren't that stupid! They won't go out and shoot someone just because they saw someone do it in a game.

Anyway I'm wandering from the point. Okay, cutesy games I hate, so what happens when I delve into the post on a fateful Monday morning? I find Super Cauldron, and take a guess, dearest reader, what type of game it is.

A flight simulator? Nope. A hard-edged full of blood platform romp? You're half way there. A cutesy sickly happy platform romp? Yep, you got it. Oh dear.

You play the part of Zmira, a brave little witch. Now you can sue me if I'm wrong, but ever since I saw the Wizard of Oz I was brought up to believe that witches were horrible hags with green faces and warts who cackled a lot and were generally not nice to know.

The witch in Super Cauldron is cute. A cute witch? That's like saying Claudia Schiffer (Schwing) is ugly! God damn, when will these game designers ever learn?

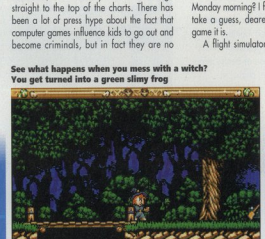
Oh well, I've got a cutesy sickly sweet platformer to review, so I may as well grit my teeth and get on with it. One thing I can guarantee, it certainly won't be the last cutesy platform game I'll come across.

I'll summarise the plot for you. Kingdom... happy... evil sorcerer... discovery... cursed chests... magic formula... entered Haunted Castle... enslave good people... spreading doom and gloom... Zmira... games heroine... has to cross three worlds... free people... look for lost magical powers and spells... destroy evil sorcerer... regain peace and happiness.

Well, you get the general idea of what it's about — it would have taken much longer to explain it all, and in any case you've heard it all before.

Zmira has to discover and

See what happens when you mess with a witch? You get turned into a green slimy frog



SPELLS

Stone: This is the only spell you possess at the beginning of the game. It never runs out and has ability to turn enemies into frogs.

Fireball: Spell of medium power only, still it does provide you with straight, rapid fire.

Flame: Spell of medium power, fires into the air and burns the ground upon landing. Would come in handy if you ever decided to go to a riot.

Bowling ball: A powerful, but slow spell. Can be used to neutralise strong enemies and also handy for playing ten pin bowling.

Magic staircase: Allows you to create steps. You can thus grab an useful object or find a raised exit. Steps disappear after a few seconds.

Bomb: Big black thing that goes boom! Weapon of medium strength, but highly important in the game. It will help you to reach places that at first seem totally inaccessible.

Teleportation: Spell depicted by a coin which you throw to the area to which you want to be transported. Good for getting out of difficult situations.

Multiplication: Thing you did in maths. With this spell you can clone yourself and thus gang up on particularly difficult enemies.

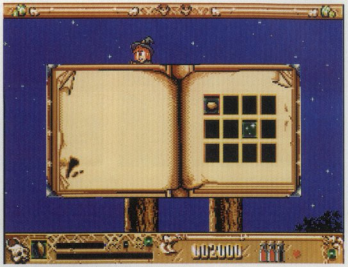
Circular saw: You can buy them from B&Q. Once thrown it follows the contours of the scenery and will eliminate everything in its way.

Lightning: A highly powerful spell that will destroy everything on the screen. Uses up a lot of energy, so use it sparingly.

Metal melter: A weapon with little power which nevertheless allows you to destroy all metal doors. Handy if you're stuck in a room with surrounding metal doors I suppose.

Magic bridge: A spell with no power at all, but very useful as it allows you to build a temporary bridge.

The little witch has to jump on some magic books to cross the water and then get past some evil biting plants. Bizarre just isn't the word



What every half decent witch needs is a spell book and here is one I prepared earlier...

conquer four worlds – the forest, the fields, the city and ultimately the haunted castle. The little, and dare I say it cute, witch must battle ogres, goblins, bats, birds and just about everything else including the kitchen sink.

At the end of each world Zmira must find a key. Each opens the door to a chamber containing a Magic Book and the secret which allows Zmira to pass from one world to the next, and thus approach the sorcerer's castle.

Zmira is a beginner when it comes to spells, but dotted throughout the worlds are a fair number of spells which when collected can be stored in the Book of Spells. The 'stone' spell is unlimited and is the one you start the game with.

When you use it on an enemy they, in true witch tradition, change into a slimy frog. Zmira may change spells as often as she likes, but unfortunately some are limited.

What every decent witch needs is a broomstick, and our heroine is no exception. Placed around various parts of each level is a broomstick icon which when picked up can be used to great effect. This is a neat little idea which stops the game play becoming too similar. The broomstick only lasts for a limited time, but there are plenty of icons to be found.

That's all there is to the game, because it is only a platformer after all, but I suppose you want to know what I think of this cutesy "play till you puke" platform adventure?

Initially Super Cauldron didn't impress. The scrolling was jerky and horrible and it seemed incredibly difficult for a platform game. Then after playing it for a couple of hours things did improve.

I started to find secret underground levels and then I was well away. Cute or not, it has a certain addictive quality which left me at the end wanting yet another go.

The graphics are quite nice, but don't look different from those in any other cutesy offering. Super Cauldron has plenty of funny quirks and some of the gameplay could have benefitted from a little more time spent on it. There are times when it gets really frustrating.

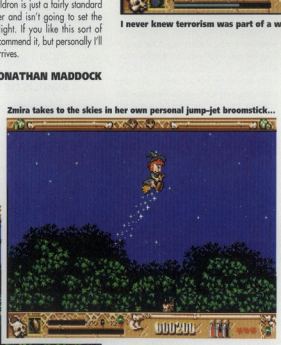
The sound leaves a lot to be desired. The tune is awful – it would hurt even the toughest of ears. The sound effects are not bad, but you cannot turn off that terrible music.

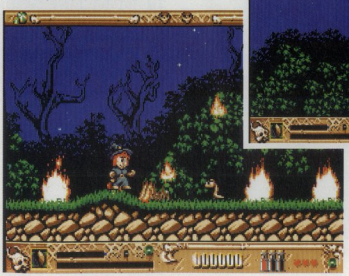
Titus have come up with a couple of crackers – look at Blues Brothers and Titus the Fox – but Super Cauldron is just a fairly standard cutesy platformer and isn't going to set the games world alight. If you like this sort of thing then I'd recommend it, but personally I'll wait until Zool arrives.

JONATHAN MADDOCK

I never knew terrorism was part of a witch's training course!

Zmira takes to the skies in her own personal jump-jet broomstick...





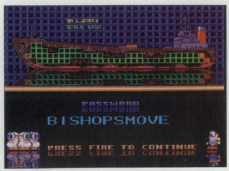
Blimey it looks just like your average episode of London's Burning. Whoever left that cigarette in that bush is in big trouble!

VISION	8
AUDIO	5
DIFFICULTY	8
LASTABILITY	8

Super Cauldron is what we reviewers would call your average platform game. Nothing new to impress, but still with all the necessary elements of a half decent product. Recommended to cutesy platform freaks only.

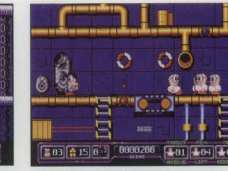
70%

Publisher ➤	Titus
Developer ➤	In house
Disks ➤	1
Price ➤	£24.99
HD Install ➤	N/A
Size ➤	½ meg



Never play the same level twice

The passengers will avoid water



On the left is the escape route

SINK or SWIM

Kevin Codner stars in an action-packed platform romper that makes the Poseidon Adventure look like bath time

Here's a novel variation on the old Lemmings theme. You play Kevin Codner, a man for whom integrity and bravery are so much a part of his make-up that they might as well be his middle names. As you read the intimate interview with the man whose very actions you'll soon be controlling, you realise the scale of your mission.

The SS Lucifer is, you see, sinking, and full of Dim Passengers, all with a marked dislike of rapidly rising waters. Your job is to guide them safely from where they enter each compartment to the exit. Sounds pretty similar to Lemmings still, doesn't it?

There are differences, though. For a start, kevin is an actual character who has nothing to do with the Dim Passengers. You can't make the passengers actually do anything like you can Lemmings – actions are controlled by a number of means apart from the passengers themselves, about which more later.

Also, the Dim Passengers might be lacking enough of the grey stuff to snatch the chair at MENSA from Sir Clive, but they haven't got a pathological desire to end it all in the same way that our cliff-loving chums of old have.

Indeed, they'll do everything they can to run away from the rising waters when they come across them.

Oh, and control is not via a crosshair and a mouse, but by the more conventional joystick and Fire button approach, your button being used to set off bombs, pick things up and so on.

So, we've established that, although based on the Lemmings idea, Sink or Swim has enough going for it to warrant consideration in its own right, so consider it we will.

Let's take a wander through the average level, shall we? Kevin appears, followed very shortly by a number of Dim Passengers. They're big, chunky affairs, and there aren't that many of them to look after. At the bottom of the screen are a load of statistics which it certainly pays to keep your eye on – especially the one that tells you how much oxygen you've got left. There are windows for passengers remaining to be saved, lives, and how much time is left on the fuses of any bombs you've planted...

Various objects can be utilised as mentioned earlier. Jetpacs are very useful – when you pull them off the wall, they drop into any rising waters which have stranded passengers in it, allowing the passengers to jetpac to safety, or the top of the screen – whichever comes first!

There's cargo knocking around, which you use to make bridges and platforms to complete an escape route for your passengers, but conversely it can get in the way, hindering the essential route to the chute, in which case you can move it.

Burst pipes shoot out fatal steam at thousands of degrees. but you can crawl along them and seal them... all with your Fire button!

CURIOUS OBJECTS

There are various hazards apart from the water-based ones; crushers do just that to anything that gets in their way, for instance. Many other helps, hindrances and curious objects knock around the various levels – swinging chains, magnetic hoists, electric fields, crew lifts – all have their uses, and those that don't teach you to avoid them very quickly indeed. There's even an emergency life-raft for when things are all going horribly wrong.

Graphically the game is a couple of years behind its time, with clumsy, not particularly well animated sprites – although it must be said that the water effects are quite impressive, especially the wobbly reflection of the Luciter in the title screens. But the movement of the characters does let it all down a little, as does their rather pedestrian speed.

Soundwise too it's OK, with some admittedly very nice water effects, but again it seems to be a couple of years behinds its time – the theme tune reminds me of one of the better PD music demo disks.

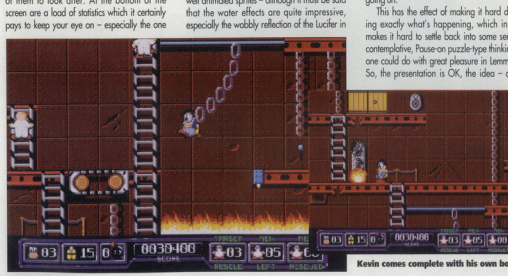
SIMPLISTIC MAGIC

As far as the gameplay goes, it's a nice idea and a credible attempt to deviate from the Lemmings idea, but like so many copied games, the more it deviates, the more it seems to lose some kind of simplistic magic. It feels rather cluttered, with too much superfluous stuff going on.

This has the effect of making it hard deciding exactly what's happening, which in turn makes it hard to settle back into some serious, contemplative, Pause-on puzzle-type thinking as one could do with great pleasure in Lemmings. So, the presentation is OK, the idea – albeit borrowed – is an excellent one, and the sound and graphics are passable but nothing special.

It's the kind of game that, should you have a particular maritime bent, you'll enjoy, but for the average gameplayer, I'd say that there's a lot of far slicker, smoother and more exciting stuff around. Sink or swim? This one's struggling to tread water, I'm afraid.

PHIL MORSE



Kevin Codner does his Tarzan thang

Kevin comes complete with his own bombs

VISION
GGGGGG
AUDIO
GGGGGG
DIFFICULTY
GGGGGGGG
LASTABILITY
GGGGG

A nice idea, clutered by average graphics, sound and gameplay. Still, Ben obsolutely loves it, so if you're looking for an oft-beat experience you could do worse.

66%

Publisher ➤ Zeppelin Games Ltd
Developer ➤ Zeppelin Games Ltd
Disks ➤ 2
Price ➤ $25.99
HD Install ➤ No
Size ➤ 1 meg

That white circle with the arrow in the middle is a rather convenient pointer to the nearest Green Beret

As you destroy certain buildings, power-up icons sometimes appear allowing you to increase your firepower or restore ammo, fuel or shields

FIRE HAWK

Codemasters abandon their Dizzy collection to release an anti-narcotics shoot-'em-up

Codemasters are most noted for their popular platform game based on an egg shaped character called Dizzy. Their prices have also mainly been in the budget category, so this latest release seems to be a step into the full price arena.

Now it's a large leap from a land of cute egg people to a full-blown drug war scenario based in a small republic called Lafia. The general situation is as follows. Drug barons have taken over from the local government in order to base their nefarious operations in this small country.

Being helpless against the incursion, the local government has requested help from the United States to get rid of the drug barons.

Having decided to lend a hand, the White House have authorised a military operation in which Green Beret paratroopers are air dropped into Lafia to check out the area and return with the vital information gathered.

You come in as pilot of the Fire Hawk rescue chopper and must fly into the territory on a "extraction" mission to get the berets out. Of course, the drug barons won't be too pleased about this so they will try to make sure you don't succeed.

Taking off from your deployment ship, you must fly the Fire Hawk over the landscape in an effort to locate the Green Beret and transport them back to the ship.

Luckily, as you fly around the surrounding area, a circular sight incorporating an arrow which conveniently points you in the direction of the nearest Green Beret. It also resorts to a square shape after picking up four Green Berets, indicating the direction of your deployment ship.

This sight also doubles as a target acquisition marker for dropping bombs on ground based targets. Your Fire Hawk chopper can carry up to four Green Berets maximum, so when your full up, you will have to return to the deployment ship to drop them off and then return for the rest.

When you pick up each Green Beret, the view switches to the rear of your chopper. A rope descends to allow the man to climb in but you will need your wits about you as enemy choppers sweep across the screen in front of you – if you don't shoot them in time, they turn and shoot you.

Of course, no sane chopper pilot will decide to fly willy-nilly about a hostile environment without carrying a suitable array of weapons. To this end, the Fire Hawk is equipped with both a machine gun and bombs. As mentioned earlier, the bombs are targeted using the circular sight and they are the most destructive and effective weapon at your disposal, so use them sparingly.

Thankfully, things are not all gloom and doom – there are power-ups available which appear when certain buildings are destroyed. These provide you with such features as three-way fire, extra shields and ammunition.

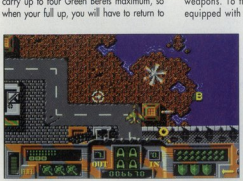
Now an eight-way scrolling landscape game is not exactly an original idea, but Codemasters have managed to blend good gameplay, graphics and sound into a game that will keep you entertained for quite some time.Sound deserves a special mention because usually with games in this price range, there is little or no effort put into it.

However, Fire Hawk has better audio than your average game which only serves to add to the overall appeal of the game.

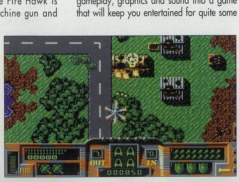
The only problem I found is that there is no level code system employed and having to start from scratch every time you get I killed is not my idea of fun.

This frustrating feature seems to be a habit carried over from the Dizzy games. Also, the scrolling could have been a little smoother. However, it's a entertaining game and well worth the price.

DARREN EVANS



The landscape graphics are quite good but the scolling could have been a little smoother



The chopper controls take a little getting used to but once you master them, they are quite nifty

One of the power-ups is the three-way feature. Pretty damn useful in a hectic fire fight

VISION

AUDIO

DIFFICULTY

LASTABILITY

84%

A competent step away from the cutesy budget games for Codemasters. Well presented with a better than average sampled soundtrack. Respect

Publisher ➤ Code Masters
Developer ➤ In House
Disks ➤ 1
Price ➤ $19.99
HD Install ➤ N/A
Size ➤ ½ meg

ON THE Drawingboard

THE PATRICIAN

Fact: Possibly the only game that'll float your boat. Jonathan Maddock grabs a telescope, runs up the rigging, jumps into the crow's nest and takes a magnified view of The Patrician...

As a general rule, simulations are highly popular, and these days you can simulate almost anything. Cars, trains, planes and sports are among some of the most popular subjects.

You can also get some fairly wacky simulations like the ability to control whole worlds and civilisations. I say wacky, because how do these games' designers know whether their games are realistic or not? They certainly can't go outside, invade Bulgaria and control all of its people on a whim.

The Patrician isn't a wacky sim – in fact it's altogether quite serious because it's a trade simulation. Hmmm, it doesn't exactly leap off the page and excite you, but read on and you'll find a beautiful maiden in a hag's clothing.

The game caters for one to four people and the action is set in and around medieval Germany during the time of a powerful trading organisation known as the Hansaetic League. The player can choose one of eight Hanseatic towns to be his/her home base and, as a ship owner, can send out his/her fleet to 16 towns trading in 18 different types of goods.

If he/she succeeds in winning the sympathy of the town's inhabitants by clever actions and social engagement, he/she will be elected mayor. This gives him/her the right to participate in the Hanseatic League Meeting which takes place every two years.

This event in turn opens the possibility for him/her to be elected Alderman or Patrician by the traders of all the Hanseatic towns and foreign offices. Whoever succeeds in this has won the game.

If all you play are shoot-'em-ups and platform games then I can tell you right away that The Patrician might not be to your liking. For those of you who do like a bit of thinking and strategy you'll probably want to know more, so read on.

The game is very complex and I can tell this just by reading the press release. The press release contains phrases like "a number of interdependent variables engender a complex system whose development becomes unpredictable".

Excuse me, but have I just stumbled into the secret kingdom of the BBC2 Open University where bearded men who wear brown cords aimlessly wander around pondering questions about life?

Although the press release makes it sound complicated, once you start playing you find that it's not that difficult to understand. One of the main reasons is because it's so easy to control and play.

No two games are identical. The designers have also tried to make it all as authentic as possible and it certainly looks as though it's been thoroughly researched.

As you can see from the screenshots, the graphics look absolutely brilliant, which is just as well – they need to be good for this type of game.

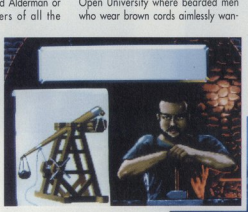
Most people won't look twice at a "strategy" or "thinking" game if it looks awful, but give one some good graphics and people will instantly think it looks interesting and be more likely buy it.

Being a reviewer I have to look at all types of games, but I have never been that fond of the strategy genre. I don't know why, but I've just never found them interesting enough.

I have played The Patrician for a considerable amount of time, though, and it has kept me quiet and entertained for longer than any other game of this ilk.

It might not appeal to the whole of the gaming kingdom, but I advise those of you who fancy something different to take a good, long look, because like me you could be pleasantly surprised.

The Patrician has got the graphics and is one of the most interesting and enjoyable strategy releases I've played in a while. Keep an eye on these pages for a full review very soon.



ISHAR

Legend of the Fortress

A contender for last year's best adventure game title comes to the Falcon dressed from top to toe in Sunday best. Do you catch my drift?

Sit back and witness a slice of history. You are about to read a review of the world's very first falcon game. Yes, it's the moment all you Falcon owners have been waiting for months and months.

Ishar: Legend of the Fortress was released last year and received a lot of critical acclaim from the computer press. It attracted impressive high scores and was regarded by many as the best role-playing adventure game on the ST in 1992.

Ishar is the story of a battle between the good people of Kendaria and the evil Krough, a mysterious figure who wants to unleash his forces of darkness upon the land of Ishar. You have to recruit a band of warriors and wizards before embarking on a dangerous journey through Kendaria to confront the evil Krough himself.

Ishar on the Falcon is basically an enhanced version of the game that appeared on the ST. It has actually been ported from the PC, and the first thing you notice is the graphics – there are 256 colours instead of 16, which makes the pictures that bit more detailed, adding to the realism.

The sound is just incredible, way over the top of the ST version. This is what the sound should have been like when Atari brought out the STE. There has also been a massive improvement in gameplay; it is a lot faster and smoother than its predecessor. You now don't have to wait quite as long between each mouse click for the screen to update.

If you forget about the enhanced graphics and sound, you'll find that Ishar on the Falcon is identical to the ST version. This isn't an original Falcon game, just a conversion.

If you haven't got the game and own a Falcon then no doubt you'll want Ishar even if it's only to prove to your friends that you haven't just wasted all your money.

Ishar is also a damn fine adventure RPG and is well worth getting even if it does cost £33, which is a bit steep even for Falcon bargain price thanks to our chums at Daze.

Jonathan Maddock

Adventuring in 256 colours that's Ishar

Action and adventure is just around the corner

VISION

AUDIO

DIFFICULTY

LASTABILITY

Ishar is basically a conversion of the ST original, but with a massive improvement on the sound and graphics front. Expensive, but a brilliant adventure all the same.

82%

Publisher ➤ Daze
Developer ➤ Silmarils
Disks ➤ 2
Price ➤ $32.99
HD Install ➤ Yes
Size ➤ 1 meg

TRANSARCTICA

Take a trip on a train in this new enhanced and improved trading game from Daze...

The second Falcon release from Daze is Transarctica, which was reviewed back in April, when it received 89 per cent on the ST and just missed out on the much coveted Gamer Gold award.

Transarctica is more a trading simulation than an action/adventure game. It's set in the future where the world has been ravaged by the Greenhouse Effect for many years.

Scientists had devised a way to shield the earth from the sun's harmful rays by planting two large nuclear devices at the poles which when exploded would throw up dirt, steam and other debris to block the sun's heating rays.

Unfortunately the scientists miscalculated and the world was plunged into an intense nuclear winter. All civilisation breaks down and the ground freezes over.

Trains are apparently the only transport that works any more and because of this the currency has changed into coal. The company that owns the trains have found out about a plan called Operation Sun to make the Earth warm again, but if this happens they'll lose everything.

Anyone standing in the company's way gets speedily killed. It's your job to find out about Operation Sun, so you decide to steal the company's biggest train, the Transarctica. You then trade with various towns and cities, build up the Transarctica and solve the mystery of Operation Sun.

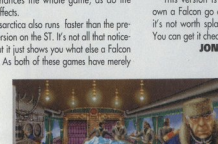
Transarctica is similar to Ishar in that it hasn't been re-written, merely enhanced. The graphics now have a wonderful 256 colours rather than the usual measly 16. The art was pretty amazing in the first place, but now it's even better.

There is, thanks to the Falcon's new sound chip, a whole range of new and improved sound. The music is that bit more pleasing and enhances the whole game, as do the sound effects.

Transarctica also runs faster than the previous version on the ST. It's not all that noticeable, but it just shows you what else a Falcon can do. As both of these games have merely been enhanced, you can imagine what a game specifically written for Atari's new beast will be like. Incidentally Ishar and Transarctica are the only official Falcon games available at the moment.

This version is really good, and if you own a Falcon go out and buy it. Otherwise it's not worth splashing out the extra cash. You can get it cheaper through Daze.

JONATHAN MADDOCK



Would you look at that? Sexy or what! The Falcon's graphical capabilities shine through...

VISION

AUDIO

DIFFICULTY

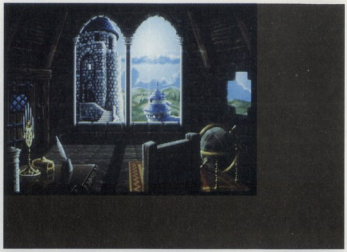
LASTABILITY

Transarctica is a brilliant game that now contains improved graphics and enhanced sound. It also runs a bit faster. Falcon owners couldn't make a better choice

85%

Publisher ➤ Daze
Developer ➤ Silmarils
Disks ➤ 3
Price ➤ $32.99
HD Install ➤ Yes
Size ➤ 1 Meg

As far as games go, Ishar 2 is one of the most long-awaited and eagerly anticipated ST sequels ever. Jonathan Maddock dons adventuring hat and checks it out



ISHAR 2

Just recently ST gamers have been given a rough deal in the adventuring department. The Secret of Monkey Island 2 and Indiana Jones and The Fate of Atlantis – despite having ridiculously long titles – have sold like the proverbial hot cakes on the Amiga and thnd received a tons of awards across the board.

Both games featured amazing state-of-the-art graphics coupled with brilliant sound effects and were immensely enjoyable to boot. Unfortunately both games will never appear on the ST at any time, although now that the Falcon had been released perhaps they might appear at some stage or other.

Meanwhile ST owners have to sit and twiddle their thumbs and these days you can fill the town dump with the number of duff adventure games being released. Thankfully this is not always the case and sometimes an adventure comes along which everyone immediately falls head over heels in love with.

Ishar: Legend of the Fortress became popular with a capital 'P' and almost every gamer that I know cherished and loved it as if it were a brother a sister, err probably.

Well 'tis now 1993 and Ishar 1, a little tired and weary, is just about ready to hobble on its walking frame to the post office to collect its pension.

Lucky then for all you adventure fans that there's a new kid in town which carries a six shooter and goes by the name of Ishar 2.

To give it its full title, Ishar 2: Messengers of Doom promises to be at least ten times better than the original. First though, in the immortal words of Max Bygraves: "I wanna tell you a story."

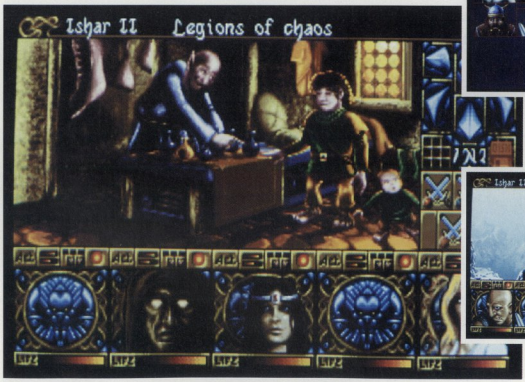
After the defeat of Krogh and his citadel of evil the land of Ishar has entered a new golden age of peace and prosperity. This is an adventure game though, so the golden age doesn't last for very long. It wouldn't be much of an adventure if all you had to do was run around in fields, drink wine and be happy. Anyway, news reaches you of a new evil demonic figure, who is incidentally the head of a spider-like network of malevolence.

Based on the islands surrounding Ishar, this evil organisation is supplying addictive mind-controlling drugs to the locals with the direct aim of unopposed power and conquest. Once again you must strap on your sword, brush up on your spells and pack your sandwiches as you head for the islands with a brand new and sparkling team of heroes.

Silmarils, the creators of the Ishar series, have made the playing area three times the size of Ishar 1! Play takes place over seven islands, each featuring different landscapes and medieval towns with harbours, banks and inns.

The quality of graphics in Ishar 1 were good, but they positively pale in comparison when compared to the sequel.

As you can see from the screenshots on these very pages, Ishar 2 looks like one of the most impressive graphical games ever. The sheer amount of detail in the artwork is incredible and the game's creators really do warrant a couple of pats on the back and maybe even a couple of pints down the pub. Just consider the dark



ON THE Drawingboard

and atmospheric forests or the breath-taking mountain ranges with mountain tracks.

The graphics are ingeniously graded to give a 3D effect. Other landscapes include swamps, plains, the Arctic, towns, castles and even dungeons. Many actions are now shown as animated sequences, for instance sailing from island to island.

The towns in Ishar 2 have been made much larger than in Ishar 1 and are graphically a lot better. There are now more opportunities for trading, meeting new characters, gaining more information, putting money in the bank and so on.

There are also over 30 new characters to interact with or recruit, over 70 different new enemies and more than 40 different new magic potions to create.

The game's designers have also taken time to sit down and examine the control system. They have now made the controls more streamlined and easier to use with a increased use of pointing and clicking.

The revolutionary use of character psychology in Ishar 1 has been refined and deepened in Ishar 2. While you may be the boss of your team of warriors and wizards, you must be subtle with individual team members who develop their own loyalties, feel fear, tell lies, steal from each other or from shops and even kill each other – sometimes.

Every now and then when you're playing a computer game, you see something you don't like about it and what do you do? You have a moan and a whinge and say things like "I don't like the way they've done the control system" or "I wish the graphics were a bit better".

Well the thing to do is write to the software company with your ideas on how it can be improved. You might think that it's going to be a complete waste of time, but in Ishar 2 the designers have taken a look at some people's comments and changed the game accordingly.

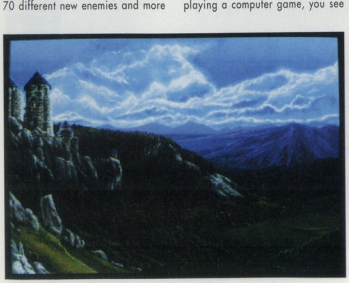
By popular demand, thanks to people making their feelings on the original game known, the saving can now be done at any point in the game and no longer has to be paid for. Additionally an overall map of the islands showing the team's position is also included. You can see now how your comments can go a short way to making better games for your computer.

Those are all the new features included in Ishar 2 and in general the game is just going to feature better graphics, sumptuous sound and improved playability. It looks all the way as if Ishar 2 is going to be one of the best adventure games of the year.

One thing worth mentioning before I toddle off is that there will be a Falcon version with 256 colours and taking full advantage of the machine's impressive new sound chip.

One thing that you can be sure of is that all you eager gamers won't have to wait very long to get your sweaty hands on it as it's expected to be released any day now.

To whet your thirst for an adventuring experience even further, you can expect a full review of Ishar 2: Messengers of Doom in the next issue of Gamer. Let's hope now that other companies will see what Silmarils have achieved with Ishar 2 and decide to start bringing out a few more games on the ST and Falcon. You never know, it could happen...



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BLAST from the PAST

Darren Evans takes a thoughtful look back at some of the software that made history

Populous

Every now and again a game emerges which is to spawn a thousand copies. Populous is one such game and ranks up there with classics like Space Invaders, Pacman and Dungeon Master.

Written by the guys at Bullfrog, it was to become their biggest selling game ever. It put the player in the divine situation of God over a unsuspecting and simple people.

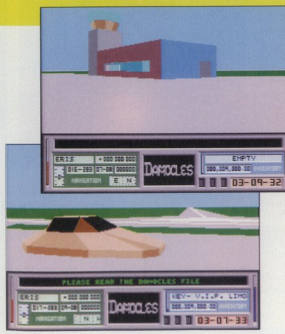
The idea was to ensure their survival against the opposing God and his people, as well as ensuring the expansion of the people through use of divine intervention. Such intervention was achieved through special powers which allowed the player to affect the population's development.

However, such powers came at a price and the unit of price was Mana. The more Mana a God had, the more powers were at his disposal. The amount of Mana available to a God depended on how many followers he had. So, one of the main aims of the game was to ensure the growth of the population. This meant flattening the land to allow settlements to be built which speeds up the population growth. Unfortunately, there is another opposing God intent on becoming more powerful than you by making his people more dominant.

The fun comes in when you have enough Mana to allow you to cause "natural" disasters. These disasters included volcanic activity, which rendered the ground very rocky and difficult to flatten; floods, which destroyed all low lying land; and earthquakes.

One of the best aspects of the game, however, was the ability to connect two computers together via modem or null modem cable and play against a friend. Of course the immense popularity of the game soon brought in other companies' versions which claimed to be better, but were often not, and the term "God games" was born to typecast them. A classic, no doubt.

Damocles



This game was most famous for the number of time it was going to be released but was delayed. The programmer, Paul Woakes, was the author of Mercenary, which appeared first on the old Atari 400/800s (remember them?).

Mercenary was of the first 3D games around and was very popular indeed. In fact, I spent many sleepless nights sat at my Atari 400 with its massive 16k memory capacity, wandering around the mysterious landscapes of wire-frame buildings.

However, Mercenary's wire-frame graphics changed to solid 3D when it appeared on the ST and Damocles, which is subtitled Mercenary 2, improved further still by making the graphics smoother and faster.

The theme behind Damocles is that as a 21st century soldier of fortune (ie a mercenary) your main role in life is to wage war and make a fortune. Having gained some notoriety in this field, you have been contacted by the state president to the planet Eris for work which is to offer a rich reward if you succeed.

You see, a rather large comet named Damocles has a rather unfortunate trajectory where your average Eris-based astronomer is concerned. In other words, the suckers going to smash Eris to smithereens if something isn't done to stop it.

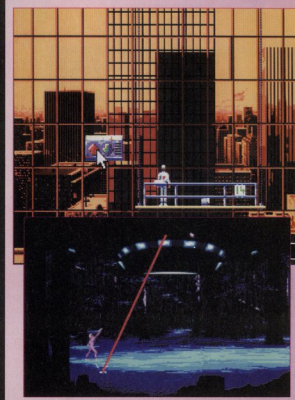
Unfortunately, the scientists on Eris charged with finding a solution to the problem were not exactly succeeding. Hardly surprising considering knowledge of impending doom is not the most productive of mental states. So, as a last resort, you have been called in to save the day.

The game features some impressive graphics with extremely fast 3D routines which are awesome when flying to different planets. The play area seems daunting with the manual stating that there are over 16 million individually numbered pyramids on one of the planets called Midas!

Fortunately, there are tons of clues around which will point you in the right direction but even if, from the State Building, you follow the straightforward clue trail to the solution, you will have only discovered 20 per cent of the full gameplay, so there's lots in there to do.

The CHEAP seats

Green shoots of recovery taking a while to reach your neck of the woods? May we suggest some bargain budget software? Phil Morse pinches the pennies



Future Wars

KIXX XL/Delphine ▪ £12.99

Yikes! It's some time in the future and all is not well. Not well at all. Man's many proud colonies dotted all over the known universe have one by one fallen to his enemies and the earth – long since abandoned by those humans with any modicum of taste – is the only stronghold left. Then...

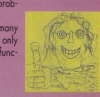
Well, I won't give any more away – suffice to say that this is quite a tasty graphical adventure, which despite its futuristic plot and tone manages to stay reassuringly, erm, normal. What more can be said about a game with a lead up like that, which promptly plonks you in a cradle dangling off a skyscraper cleaning windows? With a boss shouting at you?

Anyway, I shoot ahead. After installing the game to hard drive, should you be lucky enough to own one, and negotiating the rather strange copy protection, you're plonked in the aforementioned cradle, and it's very soon after this that you realise how friendly the user interface is.

Within seconds you're examining your surroundings, discovering an entrance into the building, heroically rescuing empty carrier bags from bins and, erm, getting shouted at by your boss again. All right, so I didn't get very far on my first attempt...

The interface, or "Activation menu" as the programmers prefer to call it, allows a very limited number of options, but they are well chosen and you never feel that the control method is holding you back. This is good, because it frees your mind to worry about how to solve problems, like saving the earth, for instance.

Well programmed, with nice, functional graphics (even if many location graphics don't come near to filling the ST's screen), my only gripe is that there aren't keyboard short – cuts for the mouse functions. A good adventure at a bargain price.



F19 Stealth Fighter

KIXX XL/Microprose ▪ £16.99

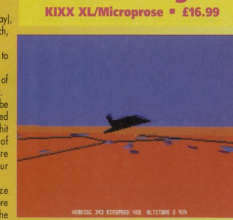
After an examination in aircraft models which passes for copy protection (answers in the official manual...) you're launched into what is probably one of the most frighteningly complex flight simulators on the market, barring possibly the out – of – this – world Shuttle.

Selecting mouse, joystick or keyboard for your preferred control method (you'll need to use the keyboard loads anyway), you realise just what a large game this is by the rigmarole you have to go through just to get the damned plane (of which, incidentally, you can choose one of two) into the air!

After choosing a pilot – you can enter your own name, and that pilot will be "remembered" by the game, allowing him to develop as time goes on – you enter the briefing room, where you get to choose a mission.

Then it's time to read up on the background to your task (I kid you not), head off to arm your plane with the weapons of your choice, and up into the sky.

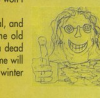
With a game of this size (you're on the second disk before your wheels have even left the runway), the option to install to hard drive would have been a most welcome addition.

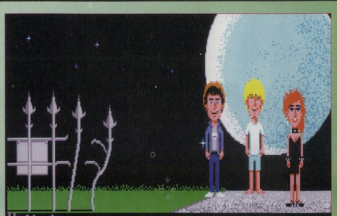


There is – or rather should be – a keyboard overlay supplied in order to make it easier to hit the right control in a time of panic, but unfortunately there wasn't one to be seen in our review copy.

Well, Knights of the Sky with all its World War I simplicity this isn't, but if you're after an expertly programmed (would we expect less from Microprose!), realistic – feeling and, yup, damned exciting flight sim of the "bomb the b**tards" variety, you won't go far wrong with this, especially at such a bargain price.

There are loads of missions, a huge, informative manual, and above all the chance to get really deeply involved. The old adage "the more you put in, the more you get out" is a dead ringer here – read up on all the intricacies and this game will reward you with hours of absorbing fun. Shame those winter nights are so far off...





Maniac Mission

KIXX XL/Lucasfilm Games ▪ £12.99

I've got to confess that after F19 this graphical adventure, with its single disk and 12-page booklet-cum-manual, made me feel like one huge weight had been lifted from my shoulders. A game I could get to grips with in less than a month!

Unfortunately, I got extremely bored and annoyed with it quite a substantial period of time before this occurrence.

It all sounded pretty good, too. You and a couple of school/college mates (it's American, and very Brat Pack in its characters) have to enter a mansion run by a mad physicist who - ever since a meteor fell in his back garden 20 years ago - has always been a rather sinister figure in the neighbourhood.

More to the point, he's got Sandy, your girlfriend (you, by the way, are Dave), and her future looks rather bleak unless you can rescue her. So having chosen your companions (two from a possible six) you are plonked outside the mansion gates and left to your own devices.

The adventure displays no particular finesse in the graphics department, and the sound is typical laughable ST bleepy stuff, but in such a game none of this necessarily matters if the brain that programmed the puzzles and situations is on the ball, or at least to your personal liking.

Unfortunately, a reasonable user interface most definitely is necessary, otherwise the player gets bogged down trying to work out ways of doing what he or she wants to do, and gets annoyed instead of involved.

Call me pedantic, but I could find no way to talk to characters or examine objects - rather obvious functions in any adventure, I would assert.

Also, to get anything to happen, you must click on a noun and a verb, sometimes the screen, sometimes something in your inventory, and all in the right order, or the screen simply remains static.

Worse, the plot is handled inconsistently, or at least so awkwardly that it becomes hard to swallow. As an example, taking the persona of a headstrong punk band singer, I wandered into the mansion and for some reason which I confess is unknown to me, decided to open the microwave (for a "Maniac Mansion" the kitchen looks suspiciously like one from Habitat, incidentally, and a boringly tidy one too).

Anyway, what happens but a mad animation with Mr Physicist telling a girl (I couldn't work out if it was me or Sandy) that he was going to suck her brains out with his mad machine.

Fair enough, but either way, how did I then manage to retrace my steps through two open doors back to my companions (who were stood exactly where I'd left them, outside the gate)?

I'm sorry but by this point I was reaching for the power switch. Disappointing.

Lotus Turbo Challenge 2

Gremlin Graphics ▪ £9.99

1991's follow – up to the hugely acclaimed Lotus Turbo Challenge, the sequel adds some rather tasty features, such as a full – screen single – player mode, the ability to link up to other machines so that up to four people can play, more opponents, and a myriad of weather conditions and obstacles to make it all a bit more exciting.

All just as well, really, because of all the genres – with the possible exception of platform games – this one has been done to death. However, as far as racing games go Lotus 2 is a bit of a stormer.

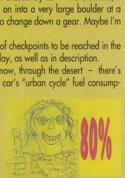
There are lots of fine touches which really do make a difference, such as the ability to enter your own name, choose your playing control method (want Fire as your accelerate button? No worries...), automatic or manual gears and password access to later levels (once you've got there!).

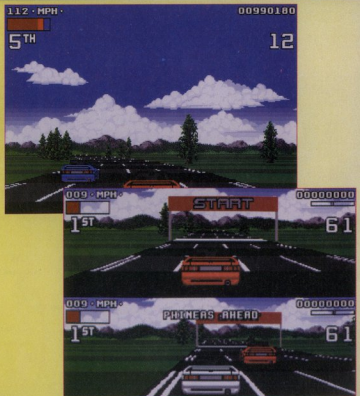
As far as I could tell, it's impossible to actually crash – hitting objects simply slows you down. This I found rather disconcerting, but not excessively so – nevertheless, it would take some car to cope with crashing head – on into a very large boulder at a three – figure speed without the driver even having to change down a gear. Maybe I'm just being picky...

The courses – which are divided into a number of checkpoints to be reached in the allotted time – are varied in both looks and gameplay, as well as in description.

Racing happens in a forest, at night, in fog or snow, through the desert – there's even a spot of city driving, just to test whether your car's "urban cycle" fuel consumption is up to much.

By the time you've done all this and sped through the marsh and a rather nasty electrical storm, you'll have well and truly got yourtenquid's worth. recommended.





cheat mode

The Gamer guide to Ishar

Ishar - Legend of the Fortress has just been rehashed and re-released on the Falcon, so all you new computer owners can thank David Wing from Nottingham who sent in this solution...

listen to the wind when you arrive and look around carefully. When you see a man, walk towards him. If you talk to him he will tell you about the good pub guide. He can be enrolled in your team, but he is a traitor, so take his gold and place him in the front row.

Now travel NE and near a pool you will find a young maiden called Kriela, who will prove an asset to the team, so enlist help and place her in the second row having prepared a fireball rune.

You can now take a trip to Angarann where there are some wandering Orcs for you to gain some experience on and get paid for doing it. You should also visit Akeer who will give you a clue. Travel to the pub and get drunk.

While in this state enrol a fellow warrior called Kirian. When sober, assess your weapons and buy accordingly. Remembering that it takes 1,000 coins to save your adventure!

Now head S and you will come to a house with a large amount of gold. You can take the gold because it's free. Take the bridge to Lotharia, where in one of the pubs you will find the Unknown who can be taught the lightning spell; you will need it later on.

Travel S and you will come to what looks like a bridge guarded by a barbarian. It is, in fact, Lake City, so kill him, gain your reward, eat and rest in the pubs. Targhan and Fhironn can be enrolled if need be. Remember to take their gold.

Head S once more to cross the bridge and then turn S to find the lizard's house and the gold in the bushes. From here, head E to Rhudgast and when you reach the border turn N.

Travel around a bush-type maze and you will encounter the White Knight. Be warned – he will take some killing. The fireballs and lightning are useful here. When you have fried him, take his helmet as it will allow you to detect the Predator later.

If you look around there is another bag of gold hidden in the bushes. Go S from here and you will come across the spirit of Azalghorm, who will tell you about three quests. If you follow the river S you will find a pedestal with a Runic Tablet on it – take this and it will offer some sort of protection later on.

From here head E, put on the white knights' helmet and enter Fimnuirh Forest. Find the Predator, kill and take the fire rings from him. At this point in the game it may be a good idea to go back to Lotharia to rest and see what you can learn.

Head back to where you killed the white knight, travel E until you reach the river then head N. Eventually you'll find some dwarves who are looking for a fight. Take their gold when you have killed them. If you side step into the woods, in the distance you will see the entrance to the Dungeon of Rhudgast Forest.

In here are four keys, two lots of food, three throwing knives, a flask for mixing potions, a flask of oil, two treasure chests full of gold and a runic tablet.

In here is also a very powerful giant, who is blocking the way to the flask room. It's best to blast him with everything you've got and then go back to Lotharia to recharge your physic energy. The skeletons in the dungeon regenerate, so kill them and collect as fast as you can.

Go N to the river and travel E to the bridge, kill the dwarves and then cross the bridge. Head E to the next river and then N to the next bridge. This is guarded by a large minotaur, so have plenty of physic energy ready. There is a bag of gold lying around and also a dwarf who will offer to join you.

Going N from this bridge is a merchant who will sell you a potion for 5,000 gold coins. After trading it is a good idea to recharge your energies before crossing the bridge because there are a lot of barbarians hanging around and also a giant called Gato who guards a tortoise, which will be traded with another merchant for a useful potion later on.

Cross the bridge and head S to the large city of Urshurak, which is full of arcs, shops, spell learning and best of all, plenty of good pubs. Search and listen well.

West of Urshurak is kandomir where Jon the Alchemist lives. If you're intelligent enough you'll be able to read a scroll that will tell you about the potions you can make from the supplies that can be

Gamesplayers

Can you complete games in less than a nano-second? Are you a computer games God? Well, if you answered yes to these questions then why not write to us chaps at Gamer, so we can share your supreme intellect with all those other hapless gamers?

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found and bought in the shops.

It is now time to travel to Halindor which is north east of Urshurak, where you learn that Erwin's daughter has been kidnapped and is held in Elwingil.

You will rescue her, but be warned – one of your party will fall in love with her and you will need to have prepared a "disrupt charm" before you take her back to Erwin's house. If you are successful, Erwin will give you a key to Valathar Dungeon.

In Zendoria there is a merchant who requires Turtle. It will be used for the pig transformation potion. In Baldaron there is a rock containing a magic sword. If you cannot pull it out, kill a few more baddies and try again.

On the way to and from Elwingil are two fireball- throwing wizards for which you will need to distribute the fire rings from the predator.

In Gilaras there is another runic tablet which you can collect, but before you do, you had better have a cure blindness potion because as soon as you step over the border you will be struck blind.

North of Halindor is the forbidden house which contains another runic tablet, although Brain Wash potion for all the party will be needed.

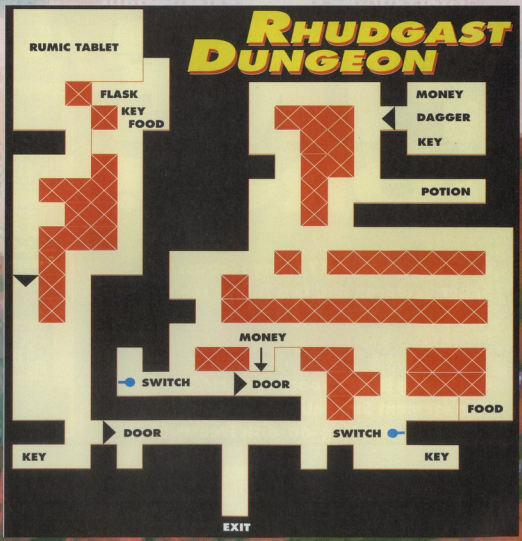
In Elwingil, the orcs regenerate every time you enter, so take your time, go in and out, collect a lot of money and rest in the pubs (ahh, such is life – Ed).

When you have gained enough skills, leave Elwingil and head for Halindor then head E. In some birch trees you will find a transporter. Take the transporter and it will take you over the river into another Elwingil. Do not be confused – keep heading E and you will come to Fhulbrod Forest.

It is here you will find a trader who will give you something for free. If you enter the forest and try to find a clearing you will be attacked by dwarves, then you'll find a pig.

This is really Morgula, a witch who was transformed, so now you know why you want a "pig transformation" potion. The witch has the much needed anti-krogh spell. She has a very low constitution so give her plenty of food. It is a now a good idea to travel to a city to strengthen her as much as possible for the task ahead.

That's the first part of Ishar completed, but be sure to tune in again next month where we will guide you through the last stage.



take note!

sent in any media, such as computer printouts or even the actual text file on a disk. If possible a couple of maps would also be immensely helpful, but make sure we can make sense of them.

Write to us and together we'll making the gaming world and happier and more peaceful place. Send your stuff to:

I'm rilly gud and I like Gamer lots Gamer, Atari ST User, Europress Enterprise, Adlington Park, Adlington, Macclesfield SK10 4NP

Don't worry Mr Mainwaring, It's only the July issue of ST Action...

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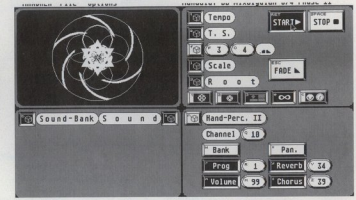
Music Mandala

I like this program. It's a sort of lazy man's auto composer. You just boot it up, set it away and it will produce an endless loop of music, drawing patterns on the screen as it does so.

Before you dash off to buy it we're not talking MC Hammer or Stock Aitken & Waterman here. No, it's much better than that!

Well, it depends on your musical taste, I suppose. The category it will get put into is New Age which probably sums it up if you must categorise it.

The music goes through three phases. The first is the build up during which time the music, er, builds up. The second phase is the variation phase during which the music – altogether now – varies. The third is like the first in reverse.



Music Mandala's main screen has more options when run in hi res mode

SMALL DICE

The program uses just a handful of parameters so it's very easy to control – in fact you don't have to set any parameters at all. They all have a small dice next to them. If you click on the dice the parameter box opens up letting you make your own selection otherwise the program will pick a value at random.

Depending on the selected parameters, a piece can last from 32 seconds to 32 hours! However, when the program is doing the selecting it rejects extreme values so most of its music can be measured in minutes rather than hours.

The Tempo can range from two to 255 beats per minute and the Time Signature runs from 2/4 to 9/4. The Scale parameter is where the harmonies come from.

There are seven modes – ionian, dorian, phrygian, lydian, mixolydian, aeolian and locrian. The program sort of plays around with them producing little riffs. Most are quite interesting and catchy. Whatever else the music is, it's certainly harmonic.

A lot of the interest comes from the sounds uses. There are eight Sound Banks – Pianos, Chromatic Percussion, Guitars, Keyboards, Synth FX, Ethnic/Strings, Percussion and Voice FX. Each has eight instrument groups assigned to it so, for example, the Guitars Bank contains Nylon Guitar, Steel String, Jazz Guitar, Clean Guitar, Muted Guitar, Mandolin, Ukulele and 12-String Guitar.

The program also has a Percussion section containing eight drum kits – Acoustic I and II, Brush, Latin, Congas, Hand Percussion I & II and Hand Drums.

The default setting for the sounds is GM so if you have a GM-compatible instrument you can literally plug in and go. If you don't or if you want to customise the sounds or kits, you can do this quite easily.

The patterns the program draws are geometric, based on the time signature. A piece in 3/4, 6/4 or 9/4, for example, will use triangles and groups of three- and six-sided polygons.

The main program runs in mono but on the TT and the Falcon it runs in colour.

Here you can select the colours which will be used by each Scale and these, in turn, determine how many instrument sounds are used in a piece.

There's a version on disk for lo and med-res monitors but these don't have the colour select options or the ability to change the instrument setup.

If you only have a colour monitor, use the PD Mono Emulator program to change the settings and save them. The patterns look prettier, though.

There's a Loop box which will run through endless cycles of tunes.

Music Mandala's lo-res main screen isn't as helpful as the hi-res version – but the patterns are more colourful!

The results can range from minimalism to modern pop electronic music. Certain settings can produce Oriental or African pieces. If you use the Percussion Sound Bank it can come up with some very interesting rhythm tracks.

My main gripe is the inability to save the music. The same setting produces a different piece each time through and you can't save the result as a Midi file.

I admit this wouldn't be feasible for a 32-hour piece but the ST is well capable of storing several minutes' worth of music and you could then use the results in your own music. If you have another sequencer you can, of course, record the sequence live.

All in all, I haven't enjoyed a program so much for ages. It's easy to use, it makes for compulsive tweaking and the results are certainly harmonic and riff-based, if not overtly melodic. Unless you're an out and out dance, house, rap, rave or techno freak I'd highly recommend it.

Music Mandala costs £29 from Newtronic, 62b Manor Avenue, London SE4 1TE. Tel: 081-691 1087.

Ian Waugh pulls the strings of a puppet that likes nothing better than to play expansive and ethereal New Age music...

The bells ring out again

Mike Oldfield made a fortune out of Tubular Bells and tried to make a second fortune out of Tubular Bells II. It wasn't quite as successful but it paid the mortgage for a few months.

Bells is very sequencable so it'll come as no surprise to learn that someone has sequenced it – one Martin Brannigan, in fact. Martin has done Bells I, but is currently reducing the score to a more playable size. Some pieces apparently used 32 tracks!

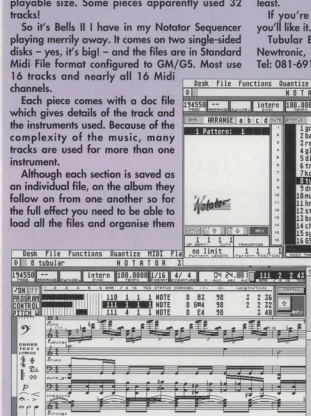
So it's Bells II I have in my Notator Sequencer playing merrily away. It comes on two single-sided disks – yes, it's big! – and the files are in Standard Midi File format configured to GM/GS. Most use 16 tracks and nearly all 16 Midi channels.

Each piece comes with a doc file which gives details of the track and the instruments used. Because of the complexity of the music, many tracks are used for more than one instrument.

Although each section is saved as an individual file, on the album they follow on from one another so for the full effect you need to be able to load all the files and organise them into such an arrangement. The attention to detail is superb with excellent use of the pitch bend and mod wheels on the guitar sounds. I can't say it sounds just like the album – Mike Oldfield used several grand's worth of hi tech gear and acoustic instruments and I was playing the files through a humble Sound Canvas – but the result is impressive to say the least.

If you're into Bells and Mike Oldfield I think you'll like it.

Tubular Bells I and II cost £24.95 each from: Newtronic, 62b Manor Avenue, London SE4 1TE. Tel: 081-691 1087.



Most of the pieces in Tubular Bells II use 16 tracks and almost all Midi channels

Part of the complex score from Tubular Bells II

Book of the month

Classics in Sequence is a follow up to *Music in Sequence* which we looked at about a year ago. It contains about 30 classical pieces including Bourree from the Fireworks Music, Daquin's Le Coucou, the Largo from Winter (Vivaldi's Four Seasons), Rossini's Overture to The Italian Girl in Algiers, The Clog Dance, Dance of the Sugar Plum Fairy, the Swan (Carnival of the Animals), Satie's Gymnopedie No. 1 and Dance from Carmina Burana.

The complexity ranges from one and two-stave arrangements of the simpler pieces to nine-stave arrangements. There are also potted biographies of the composers.

MUSICAL NOTATION

It's not based on any one sequencer so virtually anyone can use it although it does rely heavily on music notation. If you can't read the dots then entering the pieces is not going to be easy.

The book contains lots of advice and hints and tips for sequencer users. In fact, in many ways, it's more informative than *Music in Sequence*. There are sections on orchestral voicing, effects and musical ornaments. There's also a section on voice editing but it can only be very general.

If you're yearning to sequence the classics but aren't sure how to go about it, this book will get you started.

Classics in Sequence should be available from all good music shops for £12.95. In case of difficulty contact Music Sales Limited, Distribution Centre, Newmarket Road, Bury St. Edmunds IP33 3YB. Tel: 0284 702600.

All that's worth noting in the music world

● Psst! Got an Alesis SR-16? Then The Groove Factory has something for you – a batch of 50 new rhythm patterns, each with an associated variation and fills. The styles include Bossa Nova, Beguine, Swing, House, Motown and a selection of 50s, 60s, 70s and 80s Pops.

They are available on data cassette and in Midi File Format on disk, and although the disk is MS-DOS format, most STs should be able to read this. Both formats cost a modest £10.45. The Groove Factory are on 0483 476524.

● *Zone have announced The Pianist, a mammoth collection of over 200 popular classics recorded in real-time by concert pianists on an 88-note weighted keyboard. Titles include the Moonlight Sonata, the Minute Waltz, Claire de Lune and The Flight of the Bumble Bee.*

The package includes trivia games, program notes and biographies. All this for only £29. Sounds like a good deal. Contact Zone on 071-738 5444.

● Manchester-based Waterfall Digital have released Patchking, a generic, graphic-based editor/librarian which uses on-screen faders and knobs to adjust parameters. A single device version of the program costs £29.99 and you can add additional profiles at £29.99 when and if you require them.

Profiles currently exist for the Yamaha TX81Z, DX11, SPX90 and DX7; the Roland U110, U220, MKS70, JX10 and D50, and the Korg M1. New Profiles are being developed at the rate of around three a week. Waterfall Digital are on 061-882 0895.

● *Video manuals seem to be catching on, if rather slowly. Labyrinth Video have been busy producing manuals for Emagic's Creator and Notator with one on Notator Logic on the way, Steinberg's Cubase, Gajits' Sequencer One, One+ and Breakthru, plus some on guitar synthesis.*

Prices vary from around £25 to £45 depending on the program and the length of the video – some are two and a half hours long! More from Labyrinth on 0254 662096.

● Essential Software have upgraded the Protege 123 editor/librarian for Emu's Proteus series so it will now edit all aspects of the MPS and MPS+. Version 2.03 is also easier to use and has faster screen redraws. It costs £29.50, upgrades for existing users are £5 and a demo disk is £2. Details from Essential on 0274 488356.

● *Heavenly Music, Midi file producers extraordinaire, have gone dance with Technofiles featuring "16 of the heaviest club grooves to be found anywhere". They are configured to GS format and cost £16.95 plus £1.50 p&p. Phone Heavenly on 0255 434217.*

From Ladbroke Computing

Prizes worth over £400 to be won!

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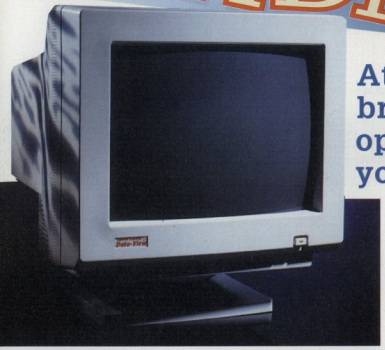


Atari ST User brings you a great opportunity to win yourself one of the latest monitors from Ladbroke Computing

The prizes are...

●The Data-View 14in SVGA monochrome monitor, worth £140, which includes a tilt and swivel stand and an adaptor with a built-in speaker. The adaptor makes this monitor fully compatible with all ST high resolution programs. Image quality is great with front-mounted controls for brightness, contrast and power. This prize also includes Midi Studio Master sequencer, worth £19.99.

● The Data-View .28 colour Ultra VGA monitor is supplied with a Falcon adaptor and is similar in design to its mono counterpart, but with an increased number of picture adjustment controls. It boasts 256 colours, excellent image quality, and retails at £250.

One of these great monitors could be yours for the cost of a quick phone call which should cost you under £1 at cheap rate. To keep the cost of your call to a minimum try to avoid any background noise, which may necessitate the repetition of answers.

HOW TO ENTER

You can enter by phone as many times as you wish. You will be asked which monitor you would like to win. The winners will be drawn from all the correct entries received.

1 Televisions operate at 50Hz. What frequency do monitors operate at?

a 40 b 50 c 60

2 What does the value Hz, refer to?

a The number of times per minute that the monitor or TV redraws a complete screen.

b The number of times per second that the monitor or TV redraws a complete screen.

c The length of time in seconds that it takes the monitor or TV to warm up.

3 How many colours does the Data-View 28in colour Ultra VGA monitor boast?

a 127 b 236 c 256

You will be asked to leave your answers together with your name and full postal address, including your postcode. Please speak clearly, spelling out any difficult words.

Calls are charged at 36p per minute cheap rate and 48p per minute at all other times

0891 543311

Your call should cost under £1 at cheap rate

Easing that tight squeeze

If you own a hard disk you will probably agree with me that the step up from a floppy the most useful investment you ever made in additional hardware.

More memory is always welcome, as are a better monitor, printer, or some new peripherals such as a scanner. But nothing revolutionises your productivity more than the ability to have all your important program and data files available without tiresome disk swapping, not to mention the drastic increase in the speed at which files are loaded and saved.

Certainly my advice to any floppies-only computer user is to go for a hard drive before any other system expansion.

Readers of this page will almost certainly own a hard disk already, as both DOS and Mac emulators require the "alien" operating systems (or at least great chunks of it) to be read in from disk, and DOS and Mac software, too, tend to come with much larger byte counts than most ST programs.

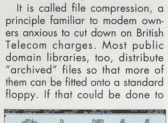
LEAPS AND BOUNDS

With two emulators – AT-Speed and Spectre GCR, say – you need several partitions for the three parallel operating systems (TOS, DOS, Mac) and, in my experience at least, all three tend to grow in leaps and bounds.

Soon the entry-level 20 or 30Mb drive needs to be replaced by a 40 or 65Mb, then you start looking at 85Mb, 120Mb or even larger models – the storage space required always seems to be the capacity of your present drive plus ten or more megabytes...

There is, however, a temporary solution which will give you some breathing space to extend the useful life of your present drive and postpone the costly day when yet another upgrade is inevitable.

It is called file compression, a principle familiar to modem owners anxious to cut down on British Telecom charges. Most public domain libraries, too, distribute "archived" files so that more of them can be fitted onto a standard floppy. If that could be done to your hard disk files in a way that keeps them executable as if at full length, and at an average compression rate of, say, a third, your 65Mb drive would effectively be "upgraded" to an 88Mb one!



Not a low-calorie diet but a memory-resident utility that could postpone the day when you have to tighten your belt to buy a bigger hard disk!

This is why many ST owners have for some time now been using "on the fly" decompressors like PFXPAK (there are several others).

The basic principle is a simple one – files are read into memory in their compressed form, decompressed and then, if program files, executed or, if data files, passed on to the relevant application.

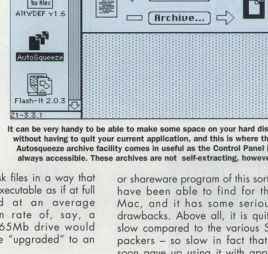
Having crammed my ST partitions for some time now with PFXPAK, I recently went on a search for public domain or shareware programs to do the same for my DOS and Spectre partitions. So far, I have come up with one Mac and several PC utilities – if you know of more, or better ones, please let me know.

This is the only public domain or shareware program of this sort I have been able to find for the Mac, and it has some serious drawbacks. Above all, it is quite slow compared to the various ST packers – so slow in fact that I soon gave up using it with application files.

MacDraw II, for example, shrank from 325k to 236k which is not bad, but took over three minutes to load afterwards, and about the same time again on exit. You have to be really desperate for disk space to put up with that sort of sluggishness!

However, things are better with data files, especially text files where the time taken is much less. What I liked about Autosqueeze was the sheer simplicity of use – all you need to do is to add the word "compressed" to the filename and the program will go about its business.

You can even mark a folder as "automatically compressed" and everything copied to it will be, well, Autosqueezed! Installed as a Control Panel device, Autosqueeze is totally transparent to the user, except when you access it from the Control Panel itself to create archive files for long-term storage or modem transmission. Whether you will find it useful depends on how desperate you are to increase your hard disk space for free. The program is available from any half-decent PD library or bulletin board.



It can be very handy to be able to make some space on your hard disk without having to quit your current application, and this is where the Autosqueeze archive facility comes in useful as the Control Panel is always accessible. These archives are not self-extracting, however

There are several such offerings in the PC world and all, curiously, have names normally associated with products designed to reduce your waistline: I found PKLite, Diet, and Slim!

Presumably this is because they will make your hard disk fit your files like an old pair of trousers fits you after weeks of strict calories watching? Diet, however, won't reach all parts of your mass storage anatomy as it deals with data files only, uncompressing them as they are passed to an application.

OVERLAY PROBLEMS

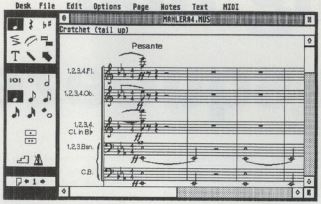
Slim will cope with everything except COMMAND.COM and other operating system files – for good reason, as these are likely to be needed before Slim swings into action. The same applies to PKLite, much the best of the three and, like the others, a memory-resident TSR which needs to be called from AUTOEXEC.BAT.

Occasional problems can arise with the overlay files required by many DOS programs and all three utilities have their own method of dealing with this, so don't rush in without consulting the documentation first.

Nor should they be used to compress Windows applications, as Windows will get seriously confused. This is a shame because Windows will make the greediest claims for your precious hard disk space and it would be most useful to squash the average partition by a few megabytes. I am looking for a solution to that particular problem, so watch this space!

Running out of disk space? Günter Minnerup helps postpone the dreaded day when you have to splash out on a bigger hard drive

Take Control
Music DTP v2.2



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As if by magic

André Willey shows you how to automate your online sessions

When you first attach your computer to a modem there is a natural temptation to try dozens of different bulletin boards.

You'll soon narrow it down to a few favourites (probably just after the first phone bill arrives), but keeping track of all those phone numbers – not to mention the nicknames and passwords you created – can be an arduous task.

Luckily, it's a task which is ideally suited to the storage facilities of a computer.

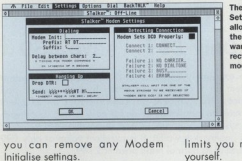
I'll describe the process using STalker as an example, but most good communications programs will have their own automation system; check your program's manual for further details.

LEARNING LOGINS

Most will work in a similar manner, with the notable exception of CoNnect which is capable of learning its own login procedures just by watching what you type at each of the prompts.

Before you start, check that your comms program is set up correctly for your particular modem. In STalker, this is done via the Modem Settings dialogue.

Most of the supplied settings will be fine, so assuming your modem stores any changes you've made in a battery backed-up memory,



The Modem Settings dialogue allows you to tailor the comms software to work correctly with your modem

you can remove any Modem Initialise settings.

If your telephone exchange supports tone dialling – that's beep-beep-beep sounds, as opposed to the old clickety-clickety-click system – set the dialler prefix to AT DT, otherwise use AT DP.

These specify the command used to tell the modem to start dialling. The phone numbers themselves will be dealt with later.

The final modem-related decision is whether your modem and RS232 cable support DCD and DTR modes correctly. DCD stands for Data Carrier Detect, which allows your modem to tell the computer that it has connected to a remote system.

DTR works similarly, allowing your computer to tell the modem to drop the line. These two settings aren't anything to worry about, so if you're not sure about them just leave them switched off and STalker will use the old-fashioned text prompt system instead.

You may now want to set up your default terminal settings – perhaps to use VT52 mode with a blinking cursor, or to display a different sized font to fit more text onto the screen – but again, the default settings should work just fine for the moment.

Now you've finished with the general setup, it's time to teach STalker the phone numbers of the bulletin boards you wish to contact. This is accomplished via the Autodial Directory dialogue, which has a series of entries to contain the bulletin board name, its phone number, and even specialised information such as the board's cost and any online time limits you may wish to set for yourself.

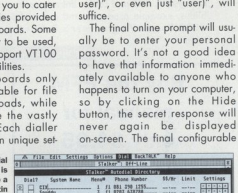
The Menu# option allows you to specify up to ten regularly-used bulletin boards which are to be placed into STalker's Dial drop-down menu.

These can then be accessed using the mouse or via keyboard short-cuts. All of these settings are saved to disk for future use by means of the Save Configuration menu option.

To the right of each phone number entry you will see five small buttons, marked C, T, X, L and S. These stand for Communications settings, Terminal Emulator settings, File Transfer mode, Auto Login sequence and Script.

The first three allow you to cater for the specific facilities provided by different bulletin boards. Some may require plain text to be used, while others might support VT100 terminal emulation facilities.

Similarly, some boards only have Xmodem available for file uploads and downloads, while others may provide the vastly superior Zmodem. Each dialler entry can have its own unique settings, or if none are supplied it will use the current default modes.



The Autodial Directory is used to keep a list of bulletin boards and their phone numbers

The Login button gives you the option of automating your entire login sequence for each bulletin board. However, before you can automate anything you must know how to do the task manually – after all, you can't teach the computer how to do something you don't know yourself, can you?

LEARNING CURVE

The simplest way is to turn the text-capture mode on and go through the process of logging on to the appropriate bulletin board by hand. Then, when you're offline again (and not paying BT for the privilege of thinking time!) you can decide what responses need to be issued at which online prompts.

STalker has a relatively simple procedure for creating automated logins. Click on the L button and you will see eight lines, each of which has an area in which to type the prompt, and another to enter the correct response to it.

For example, when logging on to CIX, the first prompt to wait for is the word "login:", to which your automated system should respond by typing "qix".

The next prompt is to enter your nickname, but CIX asks for this with the question "Nickname? (Enter 'new' for new user)". There is no point waiting for all that text, so just use the final unique portion – in this case, "new user)", or even just "user)", will suffice.

The final online prompt will usually be to enter your personal password. It's not a good idea to have that information immediately available to anyone who happens to turn on your computer, so by clicking on the Hide button, the secret response will never again be displayed on-screen. The final configurable option for each bulletin board allows you to define a Script file – or a series of tasks to do online – which will be executed as soon as the login procedure has been completed.

Scripts can be as simple or as complex as you like. In a way, you've already written your first script by telling STalker what responses to give at each of the login prompts.

A more powerful script could undertake any number of online operations, even making decisions as it goes along. If there is any mail waiting for you it could store that mail into a file on your floppy disk.

It could then read any publicly posted messages, download some files, and even log off from the bulletin board when it has done everything.

Obviously such versatile scripts may be beyond a beginner's abilities, but by starting with something simple then gradually adding features as you build up your confidence, you'll soon begin to master the real power and flexibility of online computer communications.

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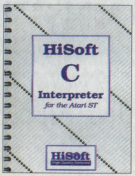

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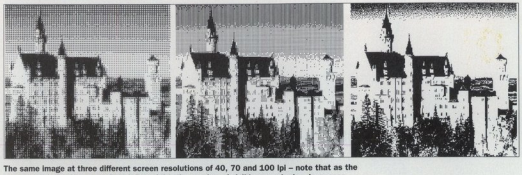
Probe into the grey area



The same image at three different screen resolutions of 40, 70 and 100 lpi – note that as the screen resolution increases from left to right, the number of visible grey shades decreases

Take a long hard look at any black and white picture in a newspaper and you will see that it is made up of hundreds of tiny dots of varying sizes.

In commercial printing, a halftone is created by re-photographing the original through a fine screen which transforms the image into this pattern of dots.

The black dots blend together to fool the naked eye into believing that it can see continuous grey tones – where the dots are large, the overall effect is a dark grey and where the dots are small, the effect is much lighter.

DIFFERENT WAY

Now print a greyscale image out on your printer and you will see what is known as dithering – the printer is trying to create the same illusion of greys but in a completely different way.

This time it uses standard sized dots – a laser or inkjet will use dots 1/300th of an inch across – grouped in very fine patterns.

The trouble comes when you try to photocopy this laser printed image. The chances are you'll end up with an image with extreme contrasts, largely made up of black and white areas. This is because the photocopier, essentially a rather poor scanner, is unable to tell the difference between the greys in the original and it lumps them all together as one tone.

As the photocopier is probably the most common method of document reproduction, it pays to look closely at what is going wrong.

What we need to do is exactly what the commercial printer would do – turn the greyscale or perhaps even a colour image, made up of continuous tones, into a halftone made up of black dots on a white background.

This can be done with a dedicated image processing package like Retouche or within the DTP package itself. PageStream, Calamus SL and Didot Professional all offer the facility.

Halftone resolution is measured in lines per inch (lpi) rather than dots per inch. Coarse newspaper photographs are typically between 50 and 75 lpi whereas high quality magazines use around 133 lpi or more. Where you want to be will depend on the standard of the actual photocopier you are using. Most will cope adequately with halftones at 50 to 60 lpi but it pays to check.

Unfortunately, the number of perceived greys in a halftone is inversely proportional to the resolution of both the screen and the output device.

A screen of 30 lpi gives nearly 50 perceived shades of grey on a 300 dpi laser while 100 lpi yields only seven distinct shades. Using a dot matrix printer produces much less satisfactory results – with a 9-pin dot matrix each dot covers several spaces in the imaginary 240 by 216 dot grid.

GOOD LASER

A good 24-pin printer with 360 x 360 dpi capability is a better bet but a 300 dpi laser or inkjet is really the absolute minimum for useful halftones.

Poor photocopiers tend to darken images more than good quality ones, partly because of the low resolution and partly because of the tendency of the toner to smudge. If you do possess a greyscale image editor, it's often a good idea to lighten the image first and possibly reduce the contrast a little.

The key to halftone success is to experiment – if nothing else it will certainly broaden your understanding of a very complicated subject!

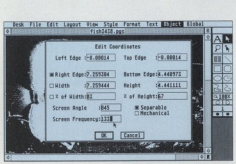
Testing tints

By way of example, I produce a regular newsletter for a local company with a rather poor copier. The first thing I did was print out a test sheet with the same image printed at various resolutions from 30 lpi to 100 lpi.

I then photocopied the sheet and picked the one which reproduced best – in this case it turned out to be miserable 40 lpi. Incidentally, at the same time I took along a set of tints – boxes given a range of tints from five to 95 per cent.

The only tints that photocopied well were those between 20 and 30 per cent. Anything darker came out as almost black while the ten per cent tint wasn't picked up at all.

The result of all this is that when I'm designing this particular newsletter, I use PageStream to give all the scanned images a 40 lpi screen frequency and I never use any grey tint other than 25 per cent.



PageStream does it via the Edit Co-ordinates menu

Retouche does it slightly better – you can see the halftone dots quite clearly

When is a grey not a grey? Answer – when it's a halftone. This month, Andrew Wright looks at a mysterious concept

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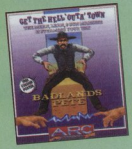

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Let's get organised

Is your ST really helping you to run your business? That may sound like a silly question from someone who regularly exhorts ST users with businesses to get the most out of their machine in terms of both time-saving and making a professional job of everything from cash-flow spreadsheets to printed brochures.

But one lesson that most business people learn – mercifully usually sooner rather than later – is that because being your own boss can be so hectic and time consuming, certain tasks have to take priority.

These are usually the jobs that actually result in profit, or save you ending up before a court for, say, not producing your VAT or income tax returns.

It also seems to be one of the unwritten laws of the universe that the tasks you have to put on ice are the ones you enjoy doing most. Prioritising is important when it comes to using your ST in business, too.

Discipline is called for, and I find from personal experience that the best way to instil it in yourself is to have a constant reminder of the vital tasks remaining to be done.

If there aren't any such tasks, you've either gone out of business, or your exit from the small business world is – how shall I say? – imminent!

One way of doing it is to write your vital list down in a diary or personal organiser. That's especially handy if you're away from base – and your ST – for much of the time.

However, if you're like most small business people, you'll be mostly office or workshop bound, whether this is at home or in the commercial heart of town or city.

So the answer for the majority of ST users could be a computerised personal organiser, such as Day by Day from Digita (see "Day by Day – the easy way").

If you set up your organiser so that it auto-boots when you switch on at the start of the working day, it will be hard to ignore the fact that there is a list of important items waiting to be attended to.

If you can't afford an electronic organiser, you can create a file in your favourite wordprocessor, or even spreadsheet, and make a habit of reading it first thing every working day, bringing it up to date as you deal with the entries, or at the end of the working day.

And don't make the mistake of thinking that organising yourself in this way is just another waste of time, delaying what you really should be doing.

Coming to grips straight away with what needs to be done, doing as much of it as you possibly can, and always carrying over to the next day's entry anything that has not been achieved is the way ahead.

How do you maintain efficiency when there's so much to do you don't know where to begin? Richard Williams has some suggestions

Day by Day – the easy way

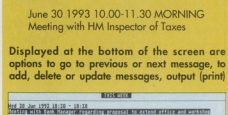
Day by Day from Digita allows you to store up to 1,000 messages in memory – which should be more than enough for most of us!

After loading the program and entering or confirming the current date, you can select Forward, which will take you first to all Urgent messages, then all Overdue ones (those which should have been dealt with previously), followed by messages for This Week.

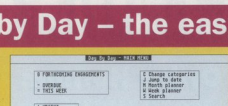
Messages are displayed in the order of Date, Time, Duration and Message itself – for instance:

June 30 1993 10.00-11.30 MORNING
Meeting with HM Inspector of Taxes

Displayed at the bottom of the screen are options to go to previous or next message, to add, delete or update messages, output (print)



Looks like an important day – forget this lot and you could be in for some trouble! Day by Day keeps track of events . . . the next best thing to a dedicated secretary



Day by Day's main menu. Select options by pressing their first letter (or 0, -, = or 1 for messages in Forthcoming Engagements, Overdue, This Week and Urgent categories respectively) or click choice with the mouse

the current screen, move to the next or preceding page of information or exit to the main menu. Press the initial letter or click with the mouse to choose one.

Exiting to the main menu presents you with numerous choices including moving to messages in Forthcoming Engagements, Overdue, This Week and Urgent categories, Jumping to dates, viewing the Week or Month Planners and setting Duration, Range and Time options.

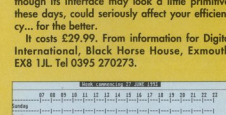
Switching Duration on causes Day by Day to ask if a message relates to a morning's, afternoon's or full day's duration or (as with some reminders) no duration at all.

Switch Range on and when adding messages you'll be prompted for the number of times the message is to be entered, and at what frequency – a boon for those who often enter recurrent tasks. With Time switched on, the user is asked for a start and finish time for an entry. From the main menu, you can also start off a Search for a word or words contained in a message. When the program finds the word(s), the entire message is displayed on screen.

The program also allows you to set up a maximum of nine categories of your own, in which you can then group related messages.

Used sensibly – and regularly – Day by Day, though its interface may look a little primitive these days, could seriously affect your efficiency... for the better.

It costs £29.99. From information for Digita International, Black Horse House, Exmouth EX8 1JL. Tel 0395 270273.



Day by Day's week planner shows the busy times and available slots. Tuesday and Wednesday look quite busy – not much happening for the rest of the week. Must be the MD's schedule...

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 making/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 AVR 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 • Record • Play • Fast Forward/Rewind with VCR style controls and much, much more...

DRUMBEAT – A 4 voice polyphonic Drum machine with full MIDI control. Up to 30 different samples can be loaded into a kit at once and 50 patterns can be programmed in either realtime or steptime. Samples can be up to 1Mb in length each.

MIDIPLAY – Flexible keyboard emulator which can cope with up to 128 samples in memory at once. Any sample can be assigned to any note or range of notes in a 9 octave range. Midiplay can play up to 4 VOICE/NOTE polyphonic with 3 levels velocity sensitivity while in single voice mode. An advanced sample loop point editor with AUTOLOOP (Zero Crossing) detection is also incorporated to ease loop point editing.

The system runs on any ST or STE with 512K (1Mb min is recommended), and comes complete with hardware, software and comprehensive manual.

ONLY £99.95

Product	Price	Order No.
Replay 16	£99.95	9158

PRO PUNTER 2 PLUS

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The NEW second generation Pro-Punter is written to professional standards and is attractive and easy to use. It features full editing and review of race data entered and also a unique low-maintenance database that does not need constant updating.

In addition to UK features, Pro Punter 2 contains unique course/going/class editors and will configure to metric weights/distances, thus allowing configuration for racing worldwide.

ONLY £49.95

Product	Price	Order No.
Pro Punter 2 + (1Mb req)	£49.95 (RRP £75.00)	9230

DRAGON MOUSE

The Dragon Mouse is optically encoded, has 280 dpi resolution, the Amiga version has 2 buttons with a full warranty against button failure.

NEW Offer

ONLY £15.99

Product	Price	Order No.
Dragon Mouse	£13.99	9253

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Order at any time of the day or night. Don't forget to give your name, address and credit card number

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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.

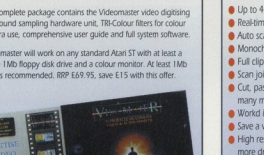
Videomaster will allow you to record monochrome, quarter screen pictures at speeds of up to 25/30 frames per second (Europe/USA) providing ultra smooth playback at high speeds. These pictures can be recorded from the output of a video recorder or directly from a video camera or a camcorder and replayed on your computer screen.

Videomaster can produce great 'grey' scale pictures from any video source with a pause or still frame facility. The colour filters provided in this package will enable the users of video cameras or camcorders to produce high quality still pictures in glorious colour.

Videomaster features a sound sampler as part of the hardware, though the software can be used with external sound 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, TRI-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.



ONLY £54.95

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Videomaster	£54.95	9107

POWER SCANNER

The Power Scanner has a variety of features which include:

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- Monochrome text or 16 greyscale levels
- Full clipboard and editing features
- Scan join feature for taking wide scans
- Cut, paste, magnify, flip, rotate, invert, crop, edit and many more editing features
- Works in all 3 resolutions
- Save a variety of picture file formats
- High resolution printer driver with more drivers forthcoming
- GEM menu and fast icon driven controls
- Keyboard shortcuts

NEW Offer

ONLY £99.00

Product	Price	Order No.
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The QJ Supercharger has many design features which will enhance your gameplay.
These include: Autofire, ergonomically contoured handgrip, durable nylon centre stick, 6 durable micro switches and four stabilizing suction cups.

ONLY £10.99

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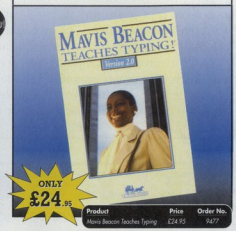
Simply the finest typing program in the world, this award winning software takes you step by step through the keyboard. Coaching you at your own speed and skill level, monitoring your progress, the stunning graphics, the help facilities and complete typing textbook makes learning to type interesting and fun.



ONLY £24.95

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Did you miss out on any 1992 **Atari ST User** CoverDisks? If so, now is your chance to obtain our pack of 12 CoverDisks for 1991 and 1992, and packs of 6 CoverDisks from January to June and July to December 1992.

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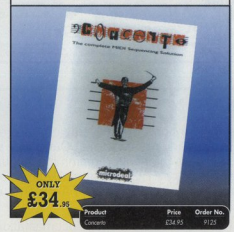
CONCERTO

The complete midi sequencing solution. It rates as the most affordable MIDI package for the ATARI even though it sports more features than many of its more expensive rivals. Concerto offers a large range of editing tools, studio type mixing desk and full sequencing interface and much much more.



ONLY £34.95

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SCHOOL SOFTWARE MATHS

Magic Maths (4-8 yrs)
A highly stimulating program to interest children in early maths. Main emphasis on addition and subtraction.

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Challenges and encourages the child with lively maths games. The emphasis is on multiplication and division with many levels of difficulty to suit all ages and abilities.

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Atari ST User Binder	£5.95	9478

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GFA–BASIC 3.5

GFA and ST Format gave away the full versions of GFA–Basic Interpreter, GFA–Assembler, GFA–Raytrace FREE on earlier cover disks. Our policy was simple. Let ST Format readers decide which is the best programming language and CAD program by giving them away to try FREE. This marketing policy worked, as thousands of ST Format readers now use GFA–BASIC and GFA–Draft.

Those ST Format readers who have not yet obtained the full documentation at a fraction of the price, should do so now. The documentation only offer expires August 1st, 1993 or earlier if our existing stocks are sold sooner.

Registered users of GFA–BASIC for Atari ST recieve 25% discount off GFA–BASIC for MS–DOS and GFA–BASIC for WINDOWS. Call or write for details.

The following offers are available until August 1st, 1993 and subject to availability. To order simply circle the products required and send with payment to GFA.

DOCUMENTATION ONLY SPECIAL OFFER		
GFA BASIC 3.5 INTERPRETER MANUAL ONLY	~~50.00~~	30.00
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All prices include postage UK only.		
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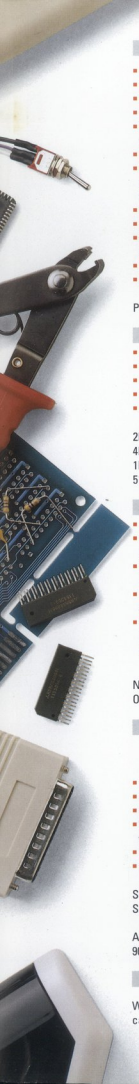

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Power Scanner **£99**

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- No soldering required
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- Copies from the internal to the external drive
- Cleverly by-passes your ST's disk controller chip
- Back-up an ST disk in around 40 seconds
- Now you can switch between your disk drive and Blitz Turbo without disconnecting your Blitz interface

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When you purchase this hard drive you can buy Lattice C v5 for **£60**

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- 128MB on one optical disk
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More Atari

News & Views from HiSoft

When only the Best will do...

Falcons from HiSoft

Yes, we have them - now! In what is an unusual step for us, we have decided to stock both the 1Mb and the 4Mb/65Mb HD versions, the retail prices of which are £599 and £999 inclusive.

We have un-rivalled (in the UK at least) knowledge of the Falcon hardware, its operating system and the tools that will be available for this amazing machine; in addition, we firmly believe in quality of customer service, both before and after a sale. So why not give us a call to discuss the benefits of this superb new computer and how it can best meet your requirements?

Language News

Watch our for new versions of our popular languages; Devpac 3, HiSoft BASIC 2 and Lattice C 5. These latest releases include full Falcon030 support with extra libraries, an improved debugger and a comprehensive handbook that discusses using these products on a Falcon computer.

The new libraries include routines for accessing the video and audio sub-systems, Speedo GDOS, MultiTOS, the DSP processor and other new aspects of the Falcon030. As such they are essential for any programmer with a Falcon computer or for anyone who wants to support this fabulous machine.

These Falcon-enhanced versions will be stickered as such on the outside of the box (an example is shown below) and so will be easily recognisable. Upgrade prices start from £10 for each product - please call for details.

The Falcon030-enhanced sticker that will appear on all our software packages that include special features to take advantage of the Falcon computer.

Speedo GDOS and MultiTOS

At long last, both MultiTOS and Speedo GDOS are available in the UK. MultiTOS is Atari's official pre-emptive, multi-tasking operating system allowing you to schedule a variety of tasks on your computer. Speedo GDOS is the new outline font system based on Bitstream's Speedo font engine.

Both programs are released on 22 May, require upwards of 2Mb of memory and are complete with manuals and free 30-day support from HiSoft.

TruePaint

TruePaint is the first art package to take advantage of the true colour capabilities of the Falcon030 computer ... and it is shipping now. Some of the highlights of the product are:

- *Works on all STs and Falcons in all screen resolutions including 768x480 True Colour*
- *Easy-to-use multi-window environment with menus, toolbox and keyboard shortcuts*
- *Full range of drawing tools*
- *A large variety of effects including shear, wrinkle, smooth, rainbow etc.*
- *Flexible zoom, full screen mode with edit, colour picker, bézier curves ...*
- *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*

TruePaint was launched at the 7th International Computer Show and has already gained wide acclaim from its users. For more information, please call us and ask for a brochure.

Special Spring 93 Prices from HiSoft

As a very special mail order promotion, we have reduced the prices of some of our software titles for a limited time to readers of this magazine. The following products will be available, subject to stock, at lower prices for the period 22 May until 31 June 1993. You can only order directly from HiSoft using your credit/debit card or by sending us a cheque/postal order (payable to HiSoft), quoting reference ATS93M1. All prices include VAT and P&P from HiSoft.

Diamond Edge, Diamond Back II, DataLite Package	£99	ProFlight	£14.95
		Lattice C 5 - non Falcon	£99.95
Speedo GDOS and MultiTOS package	£49.95	HiSoft BASIC 2 - non Falcon	£54.95
		Devpac 3 - non Falcon	£54.95
Wordflair 2 inc Speedo GDOS	£59.95	Harlekin 2	£39.95

Diamond Edge

From the authors of Diamond Back, the popular hard disk backup program, comes a new package that is essential to any serious user of an Atari 680x0 computer.

Diamond Edge is a complete set of management, optimisation, diagnostic, repair and data recovery tools for use with floppy disks and hard disks. Version 1.04 is now available, this supports the IDE hard disk within the Falcon030 - call for upgrade details.

The current version of Diamond Back, 2.51, has full support for the new 21Mb flopticals - again. contact us for information on upgrading.

DataLite 2

We are pleased to have acquired the exclusive rights to this new program from Germany.

DataLite is a sophisticated 'disk doubler' which, by using a combination of compression & de-compression techniques, can save up to 50% of the space on your hard drive or on your floppy disks. We have thoroughly tested this invaluable program and we have found it to be extremely reliable and easy-to-use.

DataLite compresses all types of data on your disk, not just text files, and thus gives you optimal space saving. DataLite is a logical companion for Diamond Edge and Diamond Back II and we have a special, limited offer for a combined pack of all three utilities (see the box below).

Harlekin 3

The latest upgrade to the immensely popular Harlekin suite of desk accessories is released on 22 May. The package has been much improved and extended including non-modal dialogs, a multi-window editor, full Multi-TOS and Falcon030 support and a new manual. Please call or write for full details and upgrade information.

All HiSoft's products should be available through your local computer dealer. If you have difficulty in obtaining a title you can order directly from HiSoft using your credit or debit card - just call 0525 718181 and ask for mail order sales.

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High Quality Software

The Old School, Greenfield,
Bedford MK45 5DE UK.
Tel: +44 (0) 525 718181
Fax: +44 (0) 525 713716