ATARI ST USER

April 1994
Issue 99
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APRIL 1994
ATARI ST USER

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Falcon 030 [illegible]	POA
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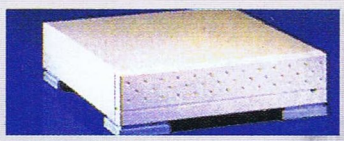

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ATARI

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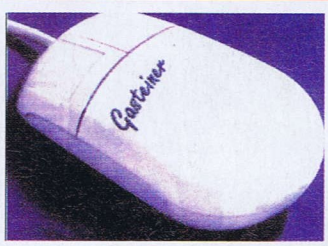

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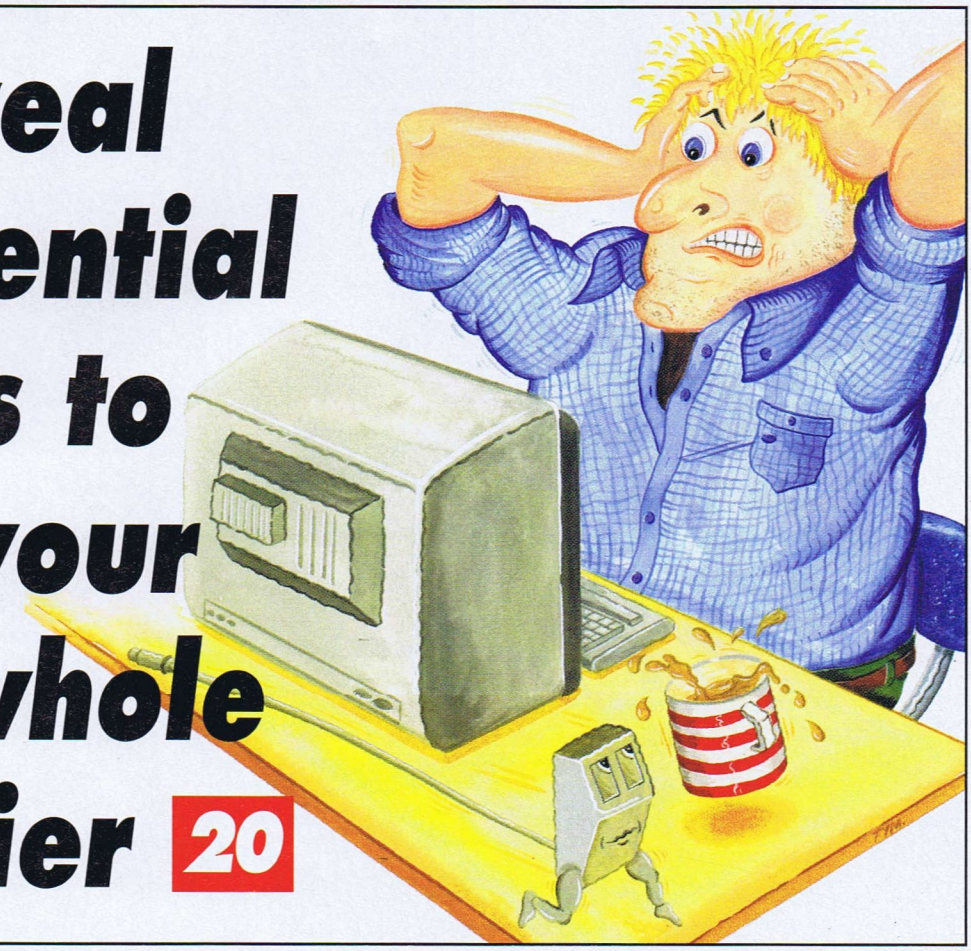

midi and music ❖ emulation ❖ comms ❖ dtp ❖ business ❖ falcon

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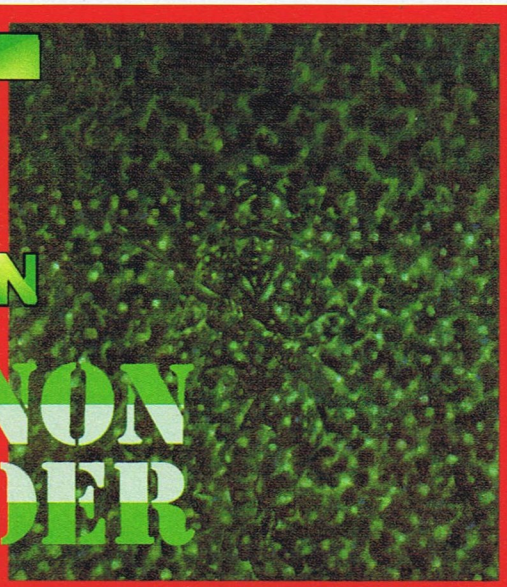

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Marpet Upgrades

Marpet upgrades for the ST are "plug in" and require no soldering. They are compatible with most motherboard layouts and come with full fitting instructions. These boards accept SIMM boards and are upgradeable at a later date. Please check that MMU and Shifter are "socketed' before ordering.

Unpopulated Marpet Board **£24.00**
See SIMM prices below

Forget Me Clock II	**£13.99**
512K SIMM'S	**£7.99**
2MB SIMM'S	**£49.99**
4MB SIMM'S	**£99.99**

Midistudio Master

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

£9.99

Hand Scanner

- 100,200,300,400 Dpi Resolution
- 1 letter mode, 3 photo modes
- 105mm scanning head
- Includes Cartridge through port with switch box
- Supplied with Scanlite Accessory. Compatible with any graphics package which supports accessories.
- Allows scanning directly into compatible packages, such as Silhouette.

Hand Scanner+ Scanlite £99.99

Hand scanner supplied with Silhouette V1.4 Autotracing vector package (mono monitor only). £119.99

Repair Services

The Only ATARI Authorised Repair Centre in the UK

Our Atari trained technicians can repair ST's 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 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.

Minimum repair charge	**£35.25**
Same day service	**£15.00**
STFM(E) PSU	**£34.99**
1Mb internal drive	**£39.99**
TOS 2.06 + Switch STFM	**£65.00**
Courier Pickup	**£11.00**
Courier Return	**£7.00**

PC Emulators

- Check configuration before ordering

PC Speed STFM or STE (XT) **£49.99**
AT Speed STFM (8MHz) **£139.99**

Moving on up as sales soar

SOARING sales and confidence in the future of Atari computers have forced Huntingdon-based software and hardware specialist Compo Software to move into bigger premises.

The firm were set up just over three years ago by Neal O'nions, at first selling word processors Write On and That's Write – now household names for TOS-based computer owners.

They now employ a staff of ten people – many of them Atari enthusiasts – and have a product range which includes word processors, emulators, music software and peripherals.

Repairs and hardware upgrades have been added to the firm's services, with an appointment booking system aimed at ensuring a fast and efficient turnaround of equipment sent in.

Their new building contains office and warehousing space, and later this year the company plan to open a showroom where enthusiasts will be able to see software demonstrated.

Compo promise to extend their product range even further in the next few months with the launch of several new packages and upgrades.

The first will be an improvement to replacement desktop NeoDesk, which will enable owners of the Geneva multitasking system to have an all-encompassing multitasking desktop.

NeoDesk 4 will sell for £59, and upgrades from earlier versions sold by GST will be available through Compo – although prices remain to be fixed.

That's Write 3 contains several extra features, among them support for SpeedoGDOS fonts, but with Compo claiming it will offer faster printing than similar packages.

An improved spelling checker will examine words in context and add the ability for users to build a separate dictionary file for individual documents as well as the main and extra word lists.

Address management program That's Address 2 will come to Britain for the first time, and voice mail will be the latest application to take advantage of Falcon technology.

"By specialising in the ST market we aim to offer a service backed up with very strong ST knowledge," Neal O'nions told *Atari ST User*.

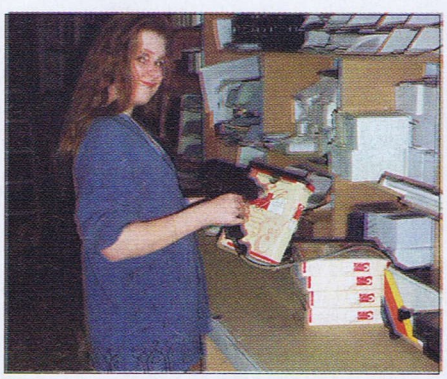
"This formula is the basis for the growth that meant we needed to move to larger premises. Our eye to the future is on continuing to specialise in the ST and Falcon."

Compo Software can now be found at Unit 3, Green Farm, Abbots Ripton, Huntingdon PE17 2PF. They can be telephoned on 04873 582 or faxed on 0480 890787.

by John Butters

Neal O'nions: Proving there's life in the market

Engineering manager Keith Sergeant hard at work upgrading another Atari ST



Francis Flaherty ensures orders are dispatched quickly from Compo's new warehouse

New crackdown on porn by phone

LOOPHOLES in laws governing computer pornography will be closed by new proposals announced by home secretary Michael Howard.

They will make it clear that transmission of obscene material over bulletin boards and private computer links is a criminal offence under the Obscene Publications Act.

And "video work" and "video recording" will be redefined for the Video Recordings Act to include moving images stored for display on computers.

Both measures have been added to the Criminal Justice and Public Order Bill currently before Parliament and come after an earlier proposal to outlaw simulated computer images.

This followed the discovery of a file containing a picture of a child's head merged on to a woman's body using latest morphing techniques. The Government also plan to make it easier for police to arrest traffickers in pornographic material and give them extra powers of search and seizure.

Porn: New Government crackdown

"Those who trade in pornography are always seeking new ways to distribute their vile material, exploiting new technology and challenging the law whenever possible," said Mr Howard.

"I am determined to do all I can to frustrate their efforts at every opportunity. These proposals will help to prevent pornographers side-stepping the law."Police say the new proposals will reinforce grey areas of the law, but will not make detection any easier.

They say it is difficult for them to gain access to bulletin boards containing porn – and even harder to discover paedophile material.

People found guilty of a computer pornography offence could face up to three years in prison and a substantial fine, with the toughest penalties for those selling such material.

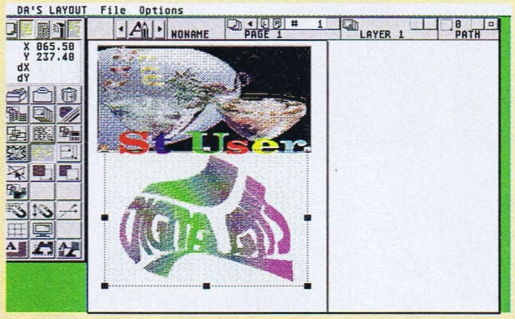
Improving the Layout

DESKTOP publishing software DA's Layout has been updated with extra features and a redesigned icon menu, its British supplier CGS ComputerBild (081-679 7307) have just announced.

Version 4 of the program can be run on a single colour monitor and contains the publishing industry standard colour library, Pantone and CMYK.

Other features include colour graduation, masking, blending, step and repeat of images, the option of twisting pictures to any angle, an EPS menu and extended printer driver set.

A new icon menu and drop down menus aim to make the software easier to use. It will work with any ST fitted with 2Mb or more of memory. Price and upgrade details remain to be fixed.



DA Layout: Now with improved icon menu

News briefs

Games given ratings

COMPUTER and video games makers have now agreed a system of self regulation designed to ensure responsible behaviour by the industry.

Under the system, games will be rated according to age suitability, a move aimed at allowing parents to make informed choices about the game playing of their children.

Shops, however, will still be able to sell young children titles containing sexual or horrific scenes that are considered ideal only for older computer users.

★ ★ ★

Signing with Tabby

OWNERS of graphics tablet Tabby are targeted for a new signature program from CGS ComputerBild (081-679 7307).

Quil enables users to sign their signature in a variety of nib sizes and pen styles, and with much faster movement than in art packages. Price: £29.99.

★ ★ ★

Genlock image for JCA

READING-based JCA Europe (0734 452416) claim their new TriLock genlock for Atari computers offers a steady picture with high quality colour display and simple push button operation.

Capabilities of the £350 device include overscan, overlay and mix features, support of up to 640 x 480 pixels with 256,000 colours, a flicker reduction filter and a fade control.

It has a crossfade facility, freeze function, and monitor output for a computer signal. Leads are supplied for each machine.

Playing the waiting game

ATARI have dealt another blow to British gamers waiting to buy their state-of-the-art Jaguar games system, announcing it might now be next year before there's full availability of the machine.

The delay is blamed on overwhelming demand in the United States, where the manufacturer is building machines as fast as components are made.

The production facility is running to full capacity and Atari are now believed to be looking for a second plant to produce chips used in the console.

But the firm are reluctant to set up additional assembly lines, although a spokesman said plenty of people have approached the company offering their financial backing.

Meanwhile, confusion surrounds a price hike recently announced for Jaguar which gives the machine a new street price of £229.

Atari spokesman Peter Walker claimed the decision was taken by a leading trade distributor who need to ship machines in from the US to meet orders already taken.

The distributor vehemently denied the claim and said the new price was introduced by Atari.

Jaguar: Further delay for Britain

Colour prints cost less

PRINTER giant Star have cut the price of their SJ-144 colour thermal transfer printer and opened presentation centres aimed at giving better customer support.

The firm say that although the machine was launched last summer at £569, increased production has enabled the company to reduce it to £459 – less than many colour inkjet models.

But by using true colour pigments rather than liquid dyes, Star say the SJ-144's output is brighter than that of inkjets and will not smudge or fade and in developing the printer, the company claim they paid particular attention to controls and paper handling functions to ensure the machine is easy to use.

Fifteen LEDs give a summary of the printer's status, while zoom and two-page modes enable images to be printed at 100, 80, 67 or 50 per cent size for better document formatting. Output is at 360 x 360 dots per inch and it has a print speed in colour of 1.4 pages per minute.

It is sold through a nationwide network of "strategically placed" presentation centres, made up of retailers who have experience in dealing with computer users needing colour output.

According to Star, the centres will guide customers to exactly the right printer for their needs and will give a high level of support.

"Users now have a far greater choice of colour printing options available," said Star marketing manager Annette Tarlton.

"The SJ-144 presentation centres will work closely with the end user and give them the best possible advice on the best value colour method to suit their needs."

System Solutions

Computers

520 STFM - 1Mb	£199
520 STFM - 2Mb	£249
520 STFM - 4Mb	£299
TT 030 - 32Mhz	£Call
MegaSTE 2Mb/16Mhz	**£399**

Special Purchase - Limited stock.

MiniS Special Offer

A complete HDD system for all STFM/E and Mega ST computer. We have managed to secure a limited quantity of low capacity Hard Drives which come supplied in our award winning MiniS casing. This offer is valid while stocks last.

40Mb MiniS inc. Translator	£199
80Mb MiniS inc. Translator	£259

All drives carry a 1 Year Warranty

Coming Soon: Magix - Multitasking for all STs.

Falcon Add-ons

Falcon Wing 0Mb	£49.95
Falcon Wing 4Mb	£179
Falcon Wing 14Mb	£Call
BlowUP 030 - Software	£15.00
BlowUP 030 - Hard 1	£49.95
BlowUP 030 - Hard 2	£69.95
14" Monitors	from £99.95
Clarity 16	£99.95
Cubase Audio	In Stock
FDI - Falcon Digital Interface	In Stock

Communications

Comms Software

Stalker	£39.95
CoNnect v2.4x	£29.95

Includes printed manual and registration

Fax Software (requires Fax Modem)

Straight Fax v2.10	£89.95
Straight Fax upgrade to v2.1	£26.00

Blackwater BBS

Our BBS is 24Hr, speeds upto 19,200

081-299 3933 - 8N1

Atari Software

Atari Works	£99.95
with SpeedoGDOS	£129.00
MultiTOS	£49.95
SpeedoGDOS	£39.95
Photo Show	£29.95
Photo Show Pro	£49.95
Diamond Edge	£49.95
Diamond Back II	£39.95
ICD Pro Utils	£39.95
Audio Calc	£39.95
DA Vector	£149.00
Calamus v1.09N	£89.00

To order and for further information telephone or write to:

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

Mail Order Telephone
0753-832212

or come to our London Showroom at:

The Desktop Centre
17-19 Blackwater Street,
London, SE22 8RS
Tel: 081-693 3355 Fax: 081-693 6936

For small items under £50 please add £2.95 P&P
Large items over £50 add £10 courier charge

Monochrome Monitors

The award winning SM14/s is a perfect replacement for the Atari SM124/5 monochrome monitors. They exceed Atari's original specifications. The 14" high resolution, paperwhite FST, gives a perfectly centred, crisp, sharp image without blurring at the edges.

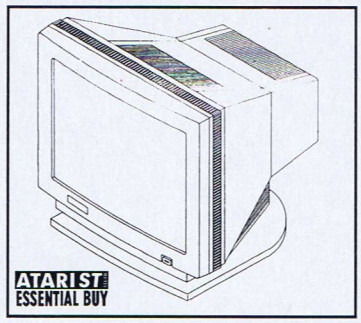
The monitor comes with or without a speaker, and there is a Falcon version available. A Tilt and Swivel stand comes as standard.

The special version for STfm/Mega ST, installed with Overscan, the screen enhancer, gives a 40% bigger display.

All monitors come as a plug in and go unit, complete with Atari plug, and no adaptors are necessary.

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

without audio	SM14	£129.95
with audio	SM14s	£149.95
OverScan ST		£39.95



MiniS - Hard Drive System

The MiniS Hard Drive System comes with drive capacities ranging from 170Mb up to 1800Mb. This full SCSI system is hardware compatible with all Atari computers, Amiga, Mac, PC etc. They are unrivaled in size, noise, speed, and style and come with a thru port for expansion.

It is the only Hard drive awarded with an Essential Buy of 92% - Atari ST Review Christmas.93 and a Gold Award of 93% - ST Format Feb.94.

★ Quiet fan ★ Dual SCSI port
★ Device Number Switch
★ Internal Power Supply
★ Small (2.5x6x8.5in) (WxHxD)
★ Smart and tough plastic case
★ 2 Year Warranty on all drives

	TT/Falcon	ST(FM/e)
170Mb	£279	£319
270Mb	£359	£399
340Mb	£459	£499
540Mb	£759	£799
1080Mb	£999	£1049
1800MB	£1499	£1549

Please add £20 to ST(FM/e) if the ICD Link is required.
Heavy Duty professional cases with 60W Power Supply, add £50.
All Prices include VAT

Falcon 030 Systems

The Falcon is fast becoming the prefered choice for 8 track digital recording, with powerful programs such as Cubase Audio using it to it's full potential. The DSP chip opens up a whole new world of Sound and Graphics, and we welcome you to visit our London Showroom for a demonstration.

We have been authorised by Atari to fit all recommended modifications without voiding the warranty.

The Line & Bass Mod. consists of a reduction of the microphone sensitivity by 6dB and removal of the bass boost from the audio output. All Falcon 030, supplied by us, come with the much talked about stability mod. free of charge, which is essential for direct to disk recording.

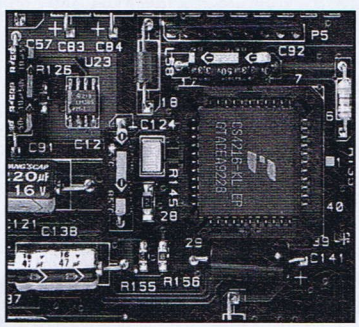
Bass/Line level mod.	£60
Stability mod.	£50
Falcon 030 Systems	Please Call

Hardware and Software Accelerators

The Need For Speed. Do you find yourself waiting for screen redraws? With our Hard and Software accelerators you can cut those annoying pauses. NVDI, the software accelerator, is easily installed on any hard drive or floppy boot disk, giving GEM programs an unbelievable new lease of life. NVDI has already been welcomed by thousands of Atari users because of it's very high software compatability. Special versions for Crazy Dots and Matrix graphics cards are available.

The T28/T36 Hardware accelerators boost your 8Mhz CPU into a powerful 28 or 36Mhz CPU respectively. The board fits into most STfm and MegaST computers and we are happy to arrange the fitting for you.

NVDI v2.5x	£ 49.95
NVDI with T28/T36	£ 39.95
T28 Board	£189.00
T36 Board	£279.00

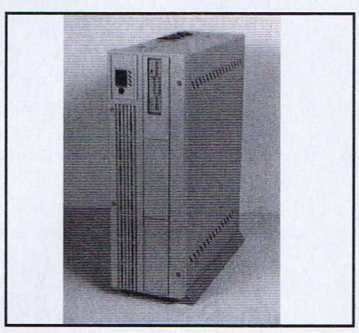


Tower Systems

We stock Lighthouse Towers to suit the whole range of Atari computers, including the Falcon 030. If you are planning to add hardware to your machine you will find ample space inside the tower, giving you more room on your desktop. With the ST/STe and Falcon, the keyboard is removed from the body of the machine and re-cased, giving you a separate free standing keyboard. A complete tower can contain:

★ Atari ST/STe/Mega or Falcon
★ Hard Drives, 40Mb-1Gb
★ Up to 3 Floppy Drives
★ Tape Streamers
★ Memory Upgrades
★ Hardware Accelerators
★ PC and Macintosh Emulators
★ Extra Printer and Monitor ports

Call us now, and we will put together a complete package



Repairs and Upgrades

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

Atari Workshop are the only company in the UK with TWO full time Atari Service centres.

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

London Service Centre:
17-19 Blackwater Street, East Dulwich,
SE22 8RS. **Tel:081-693 1919**

Call the professionals now for your personal quote.

ATARI WORKSHOP

Euro News

Don Maple reports on all that's hot from across the continent

True colours

VISION is a new Falcon paint program from France, which runs under MultiTOS and supports every resolution.

All of its numerous functions are available as keyboard short-cuts, and there is a dock with icons to give it a similar appearance to NeXT.

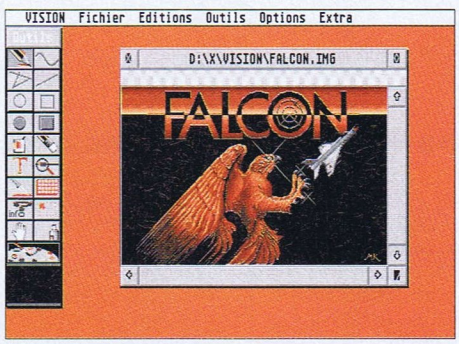
Originally written to run in mono, it rapidly evolved into handling any resolution up to and including True Colour.

It sports the standard set of painting functions including pen, brush, various geometric shapes and a spray can, and even includes text input.

What makes the program particularly attractive is its eight-layered Undo function. Even Undo can be undone!

And although the program does not contain exotic image processing functions, it is full featured and very affordable.

In France, Vision is very reasonably priced at 350F (about £40), and more information can be obtained directly from acfi, L'antique Lascours, 13360 Roquevaire, France.



Vision supports every resolution

Plug in and go

AS THE number of peripherals in a system increases, it becomes progressively more difficult to control them all with a single program.

SCSIpro Utilities, however, can handle a wide range of SCSI devices including all sorts of hard drives as well as CD-ROMs, flopticals, removable hard disks and magneto-optical disks. It even supports IDE drives like the internal Falcon hard disk.

The program runs on all STs, the TT and the Falcon. The driver maintains a cache for high data throughput and the security is maintained with a verify function.

Also supplied in the package is SCSI-Commander which can be used to send any command to a SCSI device for testing and trouble-shooting. SCSIpro Utilities are available from H3-Systems, Haeusserstrasse 44, 69115 Heidelberg, Germany.

Eurotalk

● QUESTION: What do bored German bureaucrats do? Answer: The same thing as any other bureaucrats – they make people's lives miserable.

The unlikely-named Trade Association for the Promotion of Equality in Commercial Competition have just won a court case against three monitor manufacturers.

Claiming public interest, the association are against advertisers using inches when describing monitor sizes.

As of the beginning of this year, all adverts in Germany have had to display measures in centimetres.

So a 17in monitor becomes a 43.18cm monitor. Will a 3.5in disk soon become an 8.9cm disk?

Time will tell, but this is no laughing matter as any company breaking the rules can be slapped with a DM500,000 (£200,000 pound) fine, or six months in jail for the firm's boss!

● SINCE Atari didn't attend the prestigious CeBIT show in Hanover this year, third-party companies are stepping in with an alternative showcase for Atari computers.

The show is named FEZ.A.BIT, and it takes place in Berlin on May 7 and 8.

This is the second year for the show and it will undoubtedly attract an even larger number of exhibitors and visitors than before.

It will also promote and present new programs at two locations using big-screen projection equipment hooked up to Falcons and TTs.

For more information call 010 49 30 7515724 and leave a message.

Brainstorm's FLI/FLC Movie player

PD of the month

OUR featured PD program this month goes to the movies, and it's all for free (bring your own popcorn) because MOVIE.ACC is a freeware FLI/FLC movie player.

FLI/FLC is a special resolution independent file format describing animation sequences. Since this format is widespread across different platforms, the number of available movies (animations) is quite large.

The archive containing the program comes with three sample movies – MOUSE.FLI will have you in stitches – and can be found on various BBSs or the Internet under the name MOVIE100.ZIP.

There are two players in the archive: a 68030 version for the TT/Falcon and a 68000 version for older STs.

The program was written by a French company called Brainstorm, who are famous for their DSP work on the Falcon. MOVIE.ACC is fully GEM-compliant and can be run multiple times to show many movies simultaneously.

Its window is fully resizable and can be parked in a corner of the screen showing the animations as you go about your work on the desktop. An absolute must.

For more information write to: Brainstorm, 19 bis, rue de Cotte, 75012 Paris, France.

Premier Programs For Your Atari

Inshape

Inshapes begins with the modeller, which has a variety of tools such as spin, extrude, and a template editor. Many built in primitives like cube, sphere, disc, cylinder, and tube are also included. Models can be assembled from component objects using up to 16 layers. Manipulation tools means an object can be moved, rotated, scaled to an accuracy of 0.0001mm. A wide range of materials are provided including metals, stones, plastic, wood, glass and sand. Many textures are available from marble to multi coloured spots. Even features such as bump mapping, image mapping, and waves are possible. Models can be illuminated, positioned and animated in the scene editor which in turn is your 3D world.

"A feature-packed modelling package that deserves to take the market by storm."

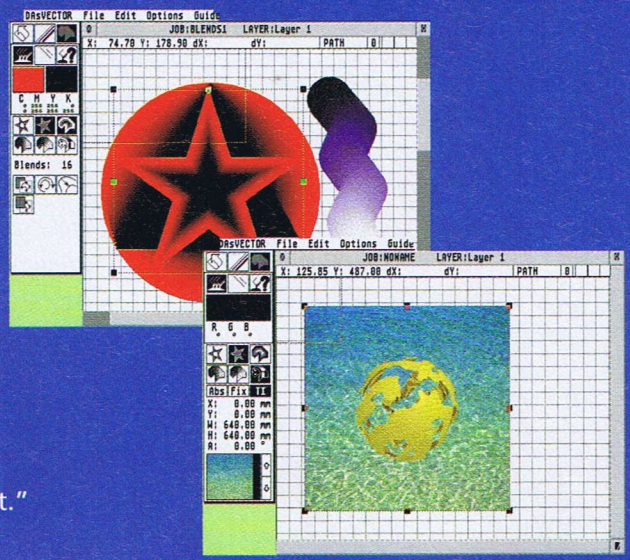
David Nilson. ST Review December 1993.

"It's the best there is."

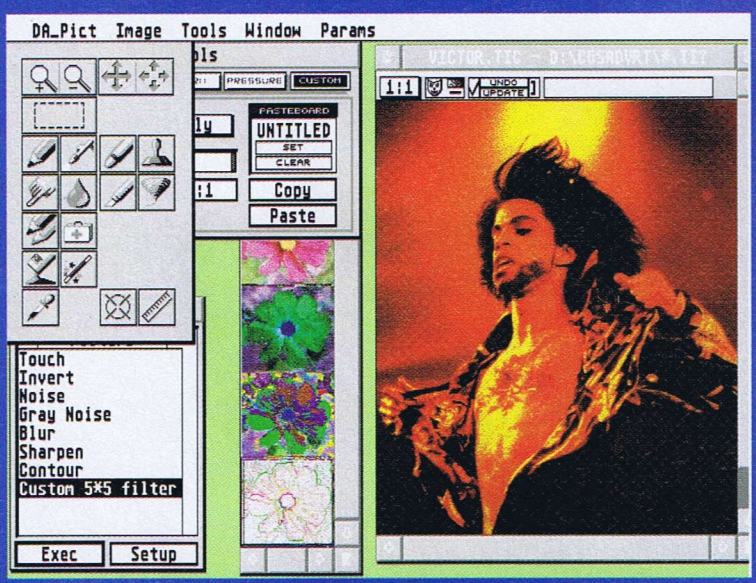
Clive Parker. ST Format February 1994.

DA's Vector and DA's Vector Pro

The essential graphics, animation and presentation tool.
DA's vector is a colour vector graphics program for any Atari ST(E)/TT and Falcon computer, with at least 2MB of memory. Unfortunately, we don't have sufficient space on this page to list the 100's of features included, like the tracer, vectorpath editor, 3d extruder, vector morphing, keyframe animator, graph and chart generator, picture converter, colourfade generator, freehand bezier drawing, to name but some of the features that combine to make this program not so much a tool as a fully equipped graphics workshop. And now the best is getting better with DA's Vector Professional's added abilities. Phone for further information, also details on the excellent Tutorial which is now available.



"If we were to pick just one winner, without doubt this would be it."
Atari ST User 1993 Awards.



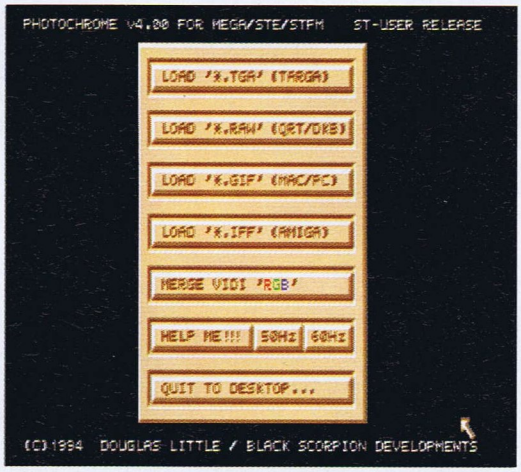
DA's Picture

The brief was simple: "Develop an image retouching program with more power than Retouche Professional and be easy to use." The result "DA's Picture".
DA's Picture is the most recent member to the Digital Arts family of acclaimed products, and a software/hardware bundle is available with the Matrix Screeneye Digitiser.
DA's Picture Software £149.00 inc. VAT.

Please note that InShape requires a maths co-processor and works with an Atari TT or Falcon, priced at £149.00. DA's Vector is £149.00 and DA's Vector Pro is scheduled to be approx £249.00. Chagall Limited is £149.00. The Tabby Graphics Tablet is £49.95 and DigiTape Lite is on special offer at £99.00 with a copy of this advertisement, until April '94. CGS ComputerBild may be contacted on 081 679 7307 for orders and further information, or write to us at: 231 Northborough Road, Norbury, London SW16 4TU.

Two brilliant graphics programs, a selection of useful utilities and an addictive game fill this month's *Atari ST User* CoverDisk. Get extracting now!

COVER disk



Photochrome lets you load pictures in various popular picture formats and view them in up to 19,200 colours!

PhotoChrome v4

View pictures in up to 19,200 colours on-screen with this graphics card emulator, which gives up to six extra graphics modes

By: Douglas Little of Black Scorpion Development
Configuration: All STs with 1Mb - low resolution
Filenames: X_PCHROM.TOS - self-extracting archive
Disk space required to extract: 147,456 bytes
Start program with: PCHROME4.PRG

LET'S face it, the ST's highest colour screen mode of 16 colours maximum on-screen at once is a little long in the tooth compared to today's emerging computers, such as the Falcon with its TrueColour modes.

It's especially limiting when using ray-tracing packages such as the powerful Persistence of Vision (POV) shareware package. Spending all that time creating a stunning scene and rendering it to a 24-bit palette, only to have to actually look at it with only 16 colours at your disposal, is very disheartening to say the least.

There is also a lot of stunning computer artwork, available through public domain and various bulletin boards, which uses palettes from 256 up to 16 million colours. Reducing them to 16 colours would practically ruin the images.

Fret no more. Douglas Little, the same guy who is currently developing the much talked about Chroma Studio art/rendering package, has used his extensive graphics programming experience to come up with a way to push the colour limits of the standard ST/STE to higher grounds.

PhotoChrome essentially gives you up to six extra screen modes for viewing pictures. All six modes are available if you have an STE with its enhanced 4,096 colour palette, while the ST has access to three of the six modes.

Various stippling options, such as fractal and hatched, can be applied to improve the image in situations where the source picture contains more colours than the screen mode.

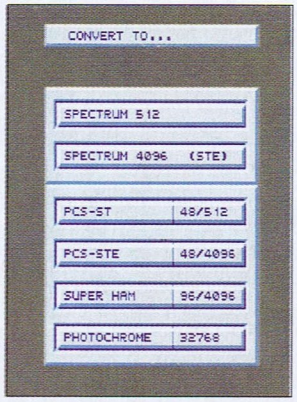
When loading pictures, PhotoChrome supports six picture formats – TGA, GIF, RAW, IFF, and RGB.

There is also a Save facility within PhotoChrome which will cure a problem that is common with Spectrum 512 pictures when viewing them.

Occasionally, dots or vertical coloured lines can sometimes appear, ruining the picture. These problems are due to synchronisation difficulties.

If you press the Return or S key while a picture is being displayed, PhotoChrome will save the picture and "immunise" it against the problem. To get a good idea of the image quality which PhotoChrome offers, load the FEMME.TGA picture.

For more information on PhotoChrome, read the PCHROME.DOC file which accompanies the PhotoChrome program.



Once an image has been loaded, you can choose from various enhanced screen modes to convert it to before viewing

DA's Vector

Check out the features and the sheer power and versatility of this excellent vector graphics processing package from CGS ComputerBild

By: Digital Arts/CGS Computerbild
Configuration: All STs/Falcon with 2Mb or more of memory - hi-res only
Filenames: X_DA_DAT.TOS (program data) and X_DA_PRG.TOS (executable file) - self-extracting archives
Disk space required to extract: X_DA_DAT.TOS - 123,904 bytes, X_DA_PRG.TOS - 803,840 bytes
Start program with: DAVEKTOR.PRG

BECAUSE of the large size and complexity of the DA Vector package, it has been split into two self-extracting archives. X_DA_DAT.TOS contains the data files for the main program.

X_DA_PRG.TOS is the main program itself and is quite a big file (557,214 bytes to be exact). Because of the large file size of the main program, you will need a disk with approximately 803,840 bytes available.

Obviously this is not possible using the ST's built-in formatting feature, so we have included a formatting utility called ABFormatter, which will allow you to get some extra space from your disks.

You will need to run the ABFormatter utility and select 2 sides, 10 sectors and leave the tracks at 80, which will format a disk giving 807,936 bytes free.

You should then copy the X_DA_PRG.TOS file to this disk and execute it to extract the main program. Once extraction of both X_DA_DAT.TOS and X_DA_PRG.TOS are complete, you can delete both these files and then transfer the DAVEKTOR.CFG folder and DAVEKTOR.PRG file to one disk.

DA's Vector is an extremely powerful graphics package and as such it needs a lot of memory. To run the demo, you will require at least 2Mb, and it also requires a minimum screen resolution of 640 x 400.

You will therefore need a high resolution monitor (colour or mono). This means it will only run in high resolution on a standard ST, while those of you with a Falcon or graphics card will need to select a screen mode of 640 x 400 or higher.

For ST owners who do not have a hi-res mono monitor, we have included a mono emulator utility called MonoPack, which is contained in the X_MONOPK.TOS self-extracting archive.

Using this mono emulator, you can simulate the hi-res screen mode on a standard colour monitor. Although the resulting display is nowhere near the quality of a real hi-res monitor, it will allow you to run the demo.

The only limitations of the demo version of DA's Vector are that the print and save functions are disabled.

Also, in the complete package, you get five other graphics and font utilities which complement DA Vector as well as some example files. DA's Know-how, which is a powerful on-line help system, is also not included.

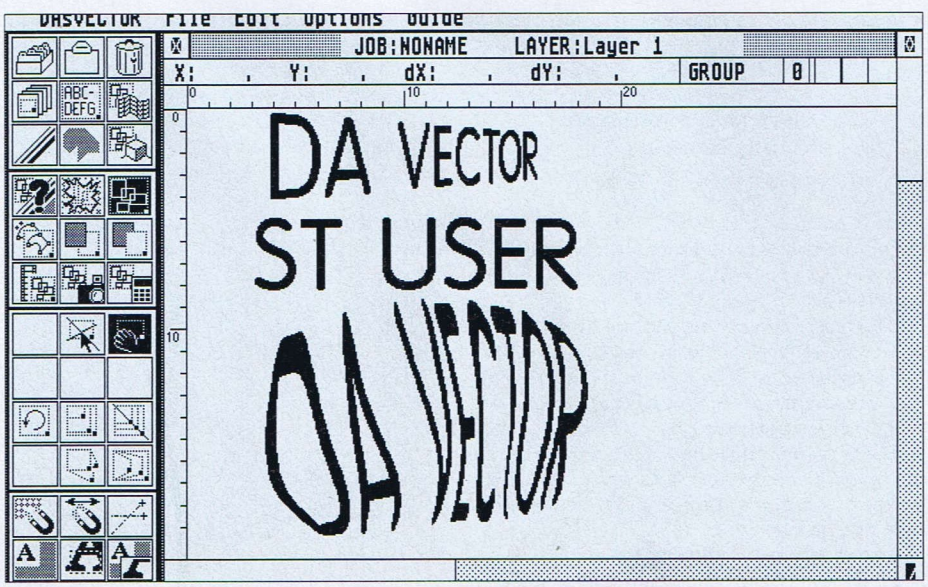
Because of the sheer versatility of DA's Vector, it is very difficult to say just what it can be used for. Vector graphics are, in themselves, very versatile and the uses to which you will put DA's Vector depend upon your imagination. Presentation graphics (logos, charts and graphs), animation and video titling can be undertaken, to name but a few.

It is the perfect tool for DTP users with support for exporting to many of the popular DTP packages. DA's Vector also has extensive printing features, with the ability to print to dot matrix, laser and colour printers.

Because DA's Vector uses the VDI for all its graphics output, it will take advantage of any graphics card which utilises a VDI driver. It also makes good use of the hi-res colour graphics of the Falcon.

Although to use DA's Vector requires a minimum resolution of 640 x 400, it is important to realise that you can output to any resolution (colour and size), meaning for instance, that you can create animations to run on lower resolutions.

For a quick guide to some of DA's Vector's features, turn to the disk tutorial on page 16.



Transform text into weird and wonderful contortions with ease using DA's Vector

Using the CoverDisk

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

In order to fill the disk with as many programs as possible, ST User employs disk compression techniques when placing large programs on the CoverDisk.

These files are termed "archived files" and cannot be directly executed from the CoverDisk. Archived files are identified by their names beginning with X_.

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

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

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

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

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

Using archived files

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

DC Mouse Stick

Take control of the mouse cursor using a joystick with this handy utility

By: Michael B Vaderman
Configuration: All STs - all resolutions
Filenames: X_DCMSTK.TOS - self-extracting archive
Disk space required to extract: 17,408 bytes
Start program with: DCMSTICK.PRG

HAVE you ever found yourself having to use the keyboard to control the mouse pointer because your mouse or mouse port is faulty? Pretty damned annoying control method isn't it? Especially when you want to do a drag icon operation.

With this utility, you can turn control over to the joystick in such emergencies until your equipment is repaired. You can have the joystick in either port and can also control the speed of the pointer in both the vertical and horizontal directions

Hickory

A brilliant desk accessory offering a analogue clock display and alarm facility

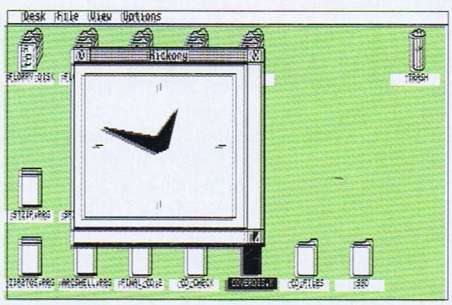
By: S J Morley
Configuration: All STs - all resolutions
Filenames: X_HCLOCK.TOS - self-extracting archive
Disk space required to extract: 89,088 bytes
Start program with: HICKORY.ACC in root directory

THIS useful utility will help you keep track of time while you are using your ST and will also let you set an alarm to inform you of important times.

Hickory takes up a measly 45k of memory and to install it you need to copy HICKORY.ACC and HICKORY.RSC files to the root directory of your floppy disk or hard drive boot partition.

The root directory merely means that they should not be within a folder. You can then restart your computer and it will automatically load the Hickory accessory, which will then be available from the Desk menu item.

If you want to set the alarm, simply double click on the clock face and select Set Up from the dialogue box. Choose the Set Alarm option and you can then enter the required time for the alarm to go off and also set the actual system time for the clock.



Keep track of time with this excellent clock accessory featuring a analogue clockface display instead of the boring digital type

CoverDisk Hotline

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

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

If a fault turns up...

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

PC Wise, Dowlais Top Business Park, Merthyr Tydfil, Mid Glamorgan CF48 2YY.

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

DA Vector reader offer

Turn to page 15 for an unmissable offer!

RDE RAM disk v5

Add a virtual disk drive to your ST with this latest version of the versatile and powerful RAM disk utility

Configuration: All STs - all resolutions
Filenames: X_RDE_V5.TOS - self-extracting archive
Disk space required to extract: 83,968 bytes
Start program with: RDE.PRG

ONCE you have a RAM disk, you'll wonder how you ever did without it. It is especially useful for those of you who regularly copy files from one disk to another on a single floppy system.

The way the ST handles file copying using one drive is abysmal. Instead of copying as many files to free memory as possible, and then writing them out to the destination disk, it simply reads a file at a time and asks you to insert the destination disk. The whole procedure is a disk-swapping nightmare.

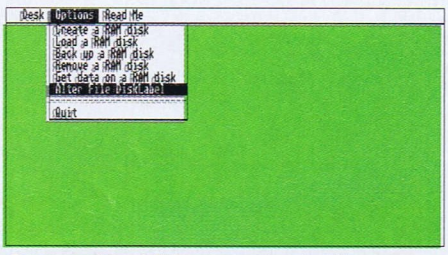
If you can't afford a second disk drive, RDE will come to the rescue by emulating a disk drive using your ST's memory. The more memory you have, the greater the size of the RAM disk you can create.

The drawbacks of using a RAM disk are that it uses up memory, so those with only 512k will be restricted in the size of the RAM disk they can use.

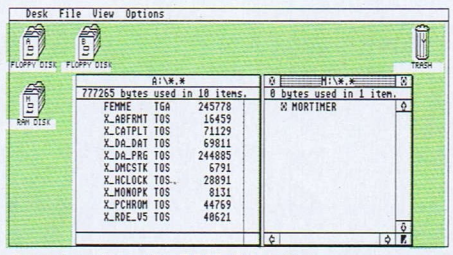
Also, because the files within a RAM disk are stored in memory, should your computer lose power due to a power black-out for instance, you will lose the files.

RDE overcomes this to some extent in that you can backup the RAM disk along with any file within it, so that when you next load the disk, all previously stored files will be automatically loaded.

RDE is also reset-proof, which means that should a reset occur for some reason, you won't lose the RAM disk or its files.



Create a virtual disk drive and make file copying both faster and easier with the RDE RAM disk utility



Once installed, the RAM disk is just like an ordinary drive complete with its own desktop icon

Upgrade your DA's Vector CoverDisk

SAVE £34

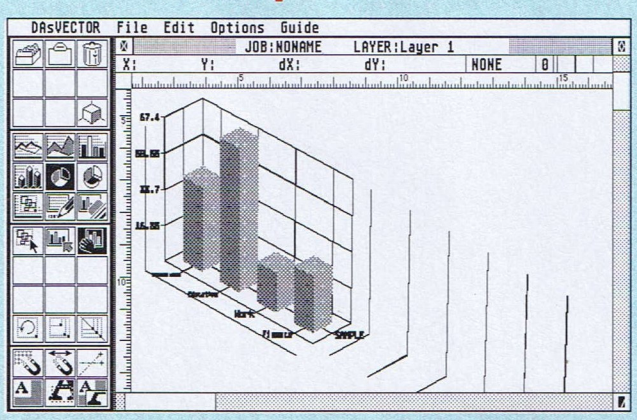
For one month only, exclusively in *Atari ST User*, we can offer you the full DA's Vector package, which includes three disks, the complete ring-bound manual, and example files, at the one-off price of £125

We've put a brilliant demo of DA's Vector on this month's CoverDisk. Once you've had chance to take a look at this great multimedia vector graphics program, you'll be pleased to know about this special offer.

DA's Vector will enable you to produce all sorts of wonderful graphics. You can generate creative or technical illustrations in colour; design complex logos; produce colourful presentations on slides or overhead projections; even make your own computer cinema that can be copied to videotape.

DA's Vector can also produce video titles which, using a genlock interface, can be overlaid onto, or mixed with, film sequences.

This special offer saves you £34 on the recommended retail price of £159



ORDER FORM

Send this order form to DA Vector Offer, CGS, 19 Wedbury Place, Croydon CRO 1ET. If you are paying by credit card you can order by phone on 081-679 7307, or fax 081-764 7898.

ATARI ST USER

Please send me DA Vector for £125 including p&p

I wish to pay by...

☐ Cheque/postal order payable to CGS ComputerBild
☐ Credit card
Expiry date __/__
Card No. ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Deliver to...

Name.....

Address.....

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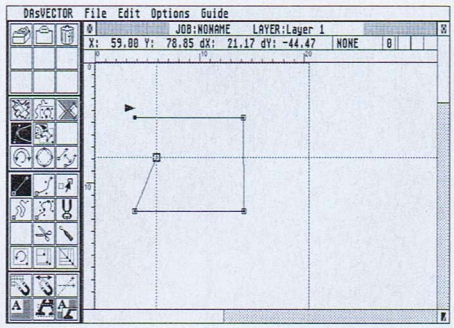
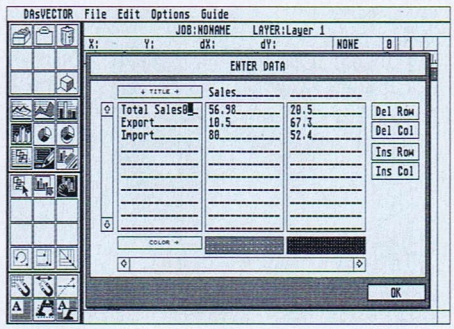
Postcode ..... Daytime phone .....

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



Let your creative talents flow with the vector drawing module

Disk Tutorial



Need to create charts or graphs for a presentation? Simply enter the data...

Vector magic

DA's Vector is clever. In fact, it's so clever you might like to follow this quick guide to find out just how clever and easy to use it actually is

DA Vector is a very powerful vector graphic processing package. It's the ideal tool which no self-respecting artist should be without.

It's so versatile and packed with features that it would require the entire magazine to describe them all, so, this guide will get you started with examples of a few of its interesting features.

Some of the applications to which you can put DAV are DTP artwork design and presentation graphics (such as graphs and pie charts) in both 2D and 3D) plus you get a powerful animation facility.

All this versatility is provided through the five modules which DAV essentially consists of. At this point, you should sit down at your computer with DAV on-screen ready to experiment with.

Move the mouse pointer up to the edit menu and you will see a list of menu items. These are the five modules mentioned previously.

You will note that the module Vectorgrafik has a tick next to it. This means that this is the current module. Click on the other modules in turn and watch the icons at the left of the screen.

As you can see, changing between modules causes the icons to change. This is because each module has its own set of functions and the majority of these are accessed through the icon area on the left.

The Vectorisation module, or Tracer, allows you to import images into DAV and then basically transform them into vector images which can be freely scaled and transformed.

Alternatively, if you are good at drawing, you can create your own images from scratch in the second module, namely the Vectorpath.

Here, you are given an array of drawing functions which are akin to those used in computer-aided design, such as Bezier curves.

The next module, called Vectorgrafik, is where you will spend most of your time and is also where the most exciting functions reside. Any images created with the previous two modules can be subjected to all kinds of effects and transformations within the Vectorgrafik module. We will check out some of the more exciting ones later.

Next is the GraphicCharts module, where you can create all kinds of graphs and charts in 2D and 3D using numerical data which can be entered.

The last module, Animation, is where you can create vector animations and utilises the all important "tweening" feature to make the creation of animations very easy. Now that you know what you have at your fingertips, let's experiment with a few of the functions available.

As well as being able to import scanned objects and transform them into vector images, you can also draw your own designs manually. This is achieved within the Vectorpath module.

When in this module, you have a number of drawing tools at your disposal. Actually, they should really be called construction tools as they differ greatly from the normal drawing tools you would find in an art package like Degas Elite.

Those familiar with Bezier lines will understand how they work and even describing them is difficult. Therefore, you should experiment with the different tools.

Try drawing a simple shape at first, such as a box. Then, when you are familiar with the way the tools work, you can create more elaborate shapes.

Essentially, though, the tools actually work by plotting points and creating lines between those points. It works much like the "rubber band" mode in Degas and other art packages.

Bezier lines are much more versatile in that you plot points and when the line is drawn between them, you also get control points along the line.

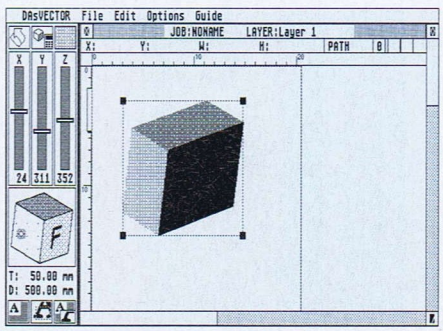
By adjusting these control points, you can bend the line in subtle ways. This allows you to create more organic or curved shapes not achievable using straight lines.

When you have drawn a line, you can then click on the Edit vector path icon and move the various points of the line at will until you are happy with the shape.

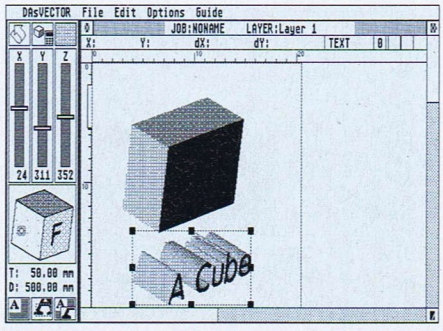
At this point, it's worth noting that as you move the mouse pointer over the various icon's on-screen, a textual description of that icons function is displayed in the top right of the menu bar.

As an example, we will draw a simple box shape to illustrate how easy it is to create images. Make sure you are in the Vectorpath module by selecting it from the Edit menu of by pressing the F2 key.

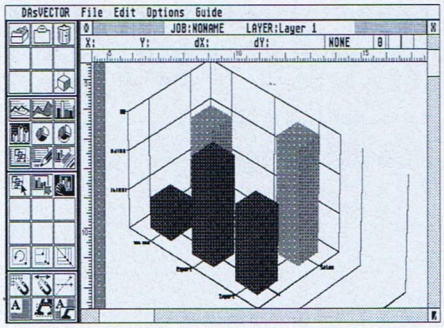
You will see that the icon section of the screen is split into four groups. The third group from the top are the actual



Transform objects from simple 2D into shaded 3D objects with very little effort whatsoever



With support for various fonts and image formats, you can create stunning text and graphic images for import into many popular DTP packages



...and choose the graph type to create excellent 2D or 3D presentation graphic charts

Talking text

As well as creating simple shapes with the vector path and then converting them to shaded 3D objects with the extruder, you can also do the same thing with text.

If you go to the Vectorgrafik module, you will see that the first icon group has a Vector text icon (middle row, middle icon). Clicking on this takes you to the Vector text section where you can type in anything you want.

You will find that the default text font is the system font, which is a bit blocky and not very nice looking. However, there is a example Calamus font included on the CoverDisk for you to load in.

To load it in, click on the Set text object icon (top row far right icon). You will see a information box appear. Locate the Select Font button and click on it to bring up a file selector box.

You can now locate and select the example Calamus font (VGAROUND.CFN) and it will be loaded, replacing the system font. Click on OK from the information box and you are ready to enter some text.

Click on the Text entry icon (middle icon on second row) and move the mouse pointer to the work area window. You will see that a text cursor appears and can be positioned using the mouse. If you have your main tutorial-created 3D cube on-screen, position the text cursor below it and type "A Cube".

If you are unhappy with the position of the words, simply click on the Select & Move Text Object icon (to the right of the Text Entry icon) and you will then be able to click on the words and re-position them with the mouse.

Once you are happy, return to the Vectorgrafik module by clicking on the arrow icon at top left. As with the vector square which you created earlier, you can now scale, skew and distort the text. You can also change your text into 3D using the same procedure used on the vector square.

icons which select the type of drawing function you will use.

As you can see, the Draw line icon, which is the first icon on the top row of this group, is already highlighted. Move the mouse pointer to this icon and you will also see that the text description at the top right of the screen also tells you it's the Draw line icon.

If you move the mouse pointer to the work area window, you will see a crosshair with an arrow. Click the right mouse button once and you will see that a point is plotted at the position of this crosshair.

If you now move the mouse, you will see a line is drawn between the first point plotted and the actual crosshair position. Keep in mind you are going to draw a square and move the pointer to the right of the first point and click the right mouse button.

This will plot a second line, fixing the second point at that position. Now draw another line from the second point to the crosshair cursor.

Now continue plotting two more points directly below the first and second points in preparation to complete the square.

Once you have plotted the third point below the first point, move the mouse pointer to the Eliminate Intersections icon, which is the third icon on the top row of the second icon group.

If you now move the mouse pointer back onto the work area, you will see that the first and last points have been joined to complete the square.

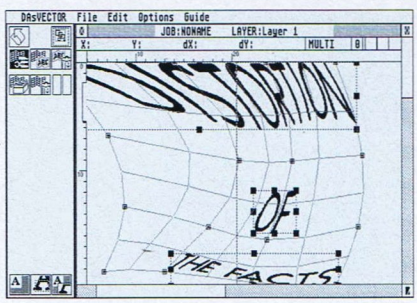
Simply move the mouse pointer out of the work area window and you will see your newly constructed square is complete.

If you are a perfectionist, you can click on the Edit vector path icon, which is the third icon on the top row of the third icon group. You can then use the mouse to click on the points of the square and, keeping the right mouse button held down, you can move the points with the line automatically adjusting as you do so.

Other useful icons in the Vectorpath module include Cut open path (the scissors) which lets you effectively cut a line at a specified point, thereby creating another line.

Also, the Remove path points icon (the pliers) allows you to click on a point which will then be deleted.

As you can see, creating your own vector shapes is easy. Experiment some more if you want, but when you are ready to move on, be sure to have a square created before choosing the next module.



Create stylish text effects using DA Vector's powerful Bezier grid feature

Now you have created a vector object, albeit a simple square, it's time to do some interesting things to it. Move to the Edit menu and select the Vectorgrafik module. You will then see that your square becomes filled.

Because the square is a vector, you can now alter it to your heart's content. For example, you can skew it, rotate it, distort it and scale it (proportionally or freely), using the icons on the bottom two rows of the third icon group.

EXPERIMENTS

For example, click on the Proportional Scale Object icon (the third icon on the third row of the third icon group). You can now move the mouse pointer to any of the four points of the square and move the mouse to change the size of the square.

Experiment with the other icons, such as skew and distort to see just how easy it is to alter the vector square. Other more powerful functions which allow you to dramatically alter the shape of the square include the 3D extrude icon.

This allows you to essentially transform your simple 2D vector square into a 3D cube with ease. Click on the 3D extrude icon (third icon on the bottom row of the first icon group).

You will now be asked a couple of questions, the first of which is if you wish to calculate joining. Answer yes to this. Next, alter the value of T: (under the display of the square with the letter F on it) from 10.00mm to 50mm, by clicking on the number 10 and typing in 50.

Although not much seems to happen, your square is now a 3D object. To prove it, use the mouse to move the sliders marked X, Y and Z and you will see the square with the letter F on it changing in 3D, along with your vector square.

Change the orientation of the square until you have a good 3D view of three faces of the cube. You will see that your vector square now consists of two planes which need to be connected to form a closed cube.

To do this, click on the Calc.3D colour rendering icon, which is the middle icon on the top row of the first icon group (it looks like a calculator). Doing this tells DAV to do some calculations to create a 3D shaded cube. You can also alter the shading of the cube.

To do this, you must click on the light source located at the top left of the display square with the F on it. As you move this around using the mouse, the faces of the square will change shade.

You must then click on the Calc.3D colour rendering icon again in order for the new shading to take effect on your newly created cube.

As you can see, DA's Vector is extremely powerful and easy to use. Unfortunately, due to lack of space, we have not even scratched the surface of what it can do.

For instance, you can essentially wrap an object onto a Bezier surface, whose shape is completely editable. It's difficult to explain without actually seeing it, but it's brilliant. You also have a complex animation facility where you can create vector animations with little effort.

● *If DA's Vector is just what you need for creating excellent graphic designs, check out the reader offer on page 15 for details on a special discount for* Atari ST User *readers on the complete DA Vector package from CGS ComputerBild.*

New Age PDL

THE BEST FOR ST AND FALCON 030!

THE ATARI FALCON

At New Age PDL we are supporting the new Falcon 030 101%. We currently have a huge stock of Falcon specific and enhanced software all on High Density (1.44 meg) disks. We also fill these disks to capacity wherever possible to give you the best possible value for money. We now have a dedicated Falcon catalogue containing loads of free software including utilities, demos, music and a game. This catalogue is COMPLETELY FREE to new customers with your first Falcon order – just ask for it.

ALL FALCON DISKS £1.75 EACH

FALCON ART & GRAPHICS PROGRAMS

FALC 3 - Birdy 2 Animation (4 meg+), very cute! Cyrel Palette Master demo.
FALC 8 - Fractal DSP, Fractal Zoomers, IFF, GIF, RAW & TGA viewers, Bit Camera for altering raster images, Speed of Light 2.6, F-Paint, Chagall demo, Slideshower.
FALC 37 - Fractal Playtime, Gemview 3.00, Delmpaint, Gix Gif, Binaris 2.0 + more!
FALC 95 - Geotech - landscape generator, Neochrome, Photo Studio demo + more!
FALC 98 - Chloe demo, Overlay demo 1.03 (zipped), Pixart demo 1.02.
FALC 102 - Raystart demo 1.1, View XGA, IMG converter, Chagall Demo, Jpeg view 2.14
FALC 110 - Videl - easy to use TGA viewer, Rainbow demo 0.5 - Truecolour art package
FALC 117 - POV Raytracer 2 on 2 disks, zipped & expands to nearly 5 meg! £3.50

FALCON PICTURES & ANIMATIONS

FALC 23 - Targa Slideshow - 24-bit Truecolour pictures - photographic quality!
FALC 31 - Temptation! The first disk of an EXCLUSIVE pack of JPEG pictures of gorgeous girls. Excellent quality pictures and the three disk pack contains no less than ninety pictures! Yes 90! Disks 2 & 3 on FALC 32 & 33.
FALC 34 - The Chippendale Auditions. This time a disk of gorgeous blokes!
FALC 38 - FLI Animations: AS Lamp, Balloon, Bart, Glass, Hands, Bounce 2.
FALC 39 - FLI Animations: A3DS, Apple, B Ball, Bugs Bunny, Chubb, Cone, Tigercat
FALC 78 - Moga Pictures - from Japanese films such as Akira, Dragon Ballsetc in JPEG format.
FALC 85 - Startrek Pictures - JPEG's from all series.
FALC 89 - Animal Pictures - the first of five disks of all sorts of mammals. (JPEGS).

FALCON DEMOS

FALC 9 - Grotesque (Excellent!), Gourad, Speeder, Plasma 30 & 50, Intel + more!
FALC 11 - Morphing demo - requires 2 Meg memory + hard drive space. + 3 more!
FALC 96 - When Dreams Become Reality (RGB), Warum (RGB), Inconvex (RGB).
FALC 97 - Fuji Ray animation (2 meg memory & HD space), Plastic Dreams - RGB/TV only
FALC 105 - Arrival demo by Agression, Conflict demo (4meg+), Cool demo. All RGB/TV only
FALC 106 - Falcon Flight Demo - real time zooming over fractal landscape + great music
FALC 107 - Crime by the DNT crew, Magnet by Alphatech, Bobs-1. All RGB/TV only.
FALC 111 - Lemans - digitised sequence of cars racing round track with music.
FALC 113 - Marga demo (4meg+) - digitised pictures of a woman modelling a skimpy bikini!
FALC 116 - Papa was a Blade Runner (4meg+) new demo by EKO, very good. RGB/TV only

FALCON MUSIC RELATED PROGRAMS

FALC 7 - Fortune for creating cites, Protracker 2, TCB Tracker, Desktracker 1.11.
FALC 17 - Winrec 1.36 (D2D), Digital 030 - new 8-track tracker program, unstable though.
FALC 29 - Startrek Cites for Fortune, Dame - Digital Audio Multipayering Editor.
FALC 52 - System Audio Manager 1.1 - assign samples to events, Digitape 2 demo.
FALC 68 - 49 Wav samples for System Audio Manager.
FALC 82 - Protracker 50Khz modules: Come & Get me, Pugsy, Tripout, Hardcore etc.
FALC 83 - As above: Freudian Dreams, Goodbye, Harry, Intro, Journal + 5 more.
FALC 84 - As above: Watch Your Bass Spin, Boom And She Cums, Fin + 4 more.
FALC 94 - Mjuzakk - Huge sound player program. Zipped, expands to 2 meg.
FALC 115 - Octalyser 0.8 - another 8-track tracker ported from the STE + docs & source code.

FALCON GAMES

FALC 21 - Humans Demo disk 1. Zipped, expands to 3 Meg. Disk 2 on FALC 22.
FALC 35 - Nethack 3.1.1 - 2 Meg memory+. Brilliant dungeons and dragons game.
FALC 103 - Oxyd (excellent!), Des Lasers et Des Hommes (3D shoot em up), Masters of Chaos (Dungeon Master clone), Tron, Ishar Editor, Mario Kart demo.
FALC 104 - Spacola (RGB) - great space shoot em up, Madtris (RGB) - crazy Tetrus!, Vertical Mayhem (RGB) - nice version of Columns.
FALC 112 - Mahjong II - German version of this classic tile game. Disk approx 1/2 full.

FALCON UTILITIES & APPLICATIONS

FALC 2 - Falcon Boot 1.2, Backward 2.24 (ST emulator), New Depack, Text Files, Desk Copy, Deskpic 1.05, Sysinfo, Multi Dialogue, DC Xtract 2.1, Revive, SpiritED 1.3.
FALC 5 - C56K - C compiler, Chipmunk Basic 1.0, GTAR 1.11.1 - For MiNT & Minix systems.
FALC 10 - DSP56001 Assembler 1.1, ASM-CPX and DSP Bits - get programming now!
FALC 15 - 45 assorted MiNT/MultiTOS utilities + extended colour icons that run in Truecolour
FALC 20 - DSP Routines - about 1 megabyte of useful DSP routines.
FALC 28 - X Control 1.2, Clock 2.0, Edison screen saver, Mini FS 0.55, Magic Boot, Gemar 1.23 - Tape Backup, BMAP Fix 2, Falc mods, Outside demo, PRG Flags.
FALC 36 - RDE 3.1 Toswin 1.4, Lha 2.22, Zoo 2.1, Zip 2.3, Gem Bench 3.25, Good Backup 1.13, Boot Init 1.1, Ecopy 1.5, Fcontrol, Shbuf 1.3
FALC 77 - Emacs 3.11, Everest 1.5, KM Term, Atomik 3.5, X-Menu 1.3, Profile 1.43, Rezfooler (run RGB stuff on VGA monitor), Fullres 1.01, Swabs, Dclock 1.0, Fuzzy Clock 1.14.
FALC 109 - DMB icons - two large sets of replacement icons, Before Dawn screensaver 1.25.
FALC 114 - Multi-Dialogue 1.3, Master Browse 3.2 - excellent text file viewer, T-Cache 6.0.

THE ATARI ST/STE

New Age PDL in now in it's third year of business supplying top quality ST/E software. We now have over 1400 disks of some of the best PD, Shareware and Licenseware to suit all tastes. Just look through our advert ot get an idea of the huge range that we carry. Our disk based catalogue describes every single program in detail, has a beginners section and is very easy to use - it's also COMPLETELY FREE to new customers! Just ask for it, there's no need to send any disks or SAE's. If you are an existing customer and you would like an update then send back your disk with a stamped SAE.

HIGH RESOLUTION GAMES

GAME 1 - Anduril, Eliminator, Galaxy, Gilgalad, Mini Golf, Bubble, Runner, Space War, Tetris, Play Thing, Once 'A King.
GAME 8 - Diamond (Boulderdash), Invaders, Macpan, Megaroids (Asteroids), Minefield, Missile, Murray, Solitair, Spreng.
GAME 28 - Payramid, Escape, Sokoban, Cube World, Battleships.
GAME 30 - Air Traffic Control, Go-Board, Munchers, Pong, Puz Puz, Trivia, Go-Up.
GAME 33 - Bolo (Excellent breakout game), Super Breakout, Baseball.
GAME 34 - Pork 1 & 2 - spoof Zork type adventure games, Enchanted Realms.
GAME 38 - Net Hack v2.3, Scribble, Sherlock, Zarge, Checkers.
GAME 39 - Eamon Fantasy Role PLaying Kit, DDST - dungeons and dragons.
GAME 50 - Jeopardy, Clueso, Airline Manager, Locomotive, Bandwurm, Hextris.
GAME 76 - Hack & Slay Construction Set, Chess, Match-it, Crossword Editor 2.
GAME 112 - Risky Construction Set, Roulette, Yatsy, Backgammon, Poker, Pai Gow.
GAME 125 - Cyote Dave's Poker, Deena, Cribbage, Tectic, Fast Poker.
GAME 168 - Napolean - a 'Risk' style game of war and strategy.
GAME 185 - Oxyd 2 - the sequel to the brilliant Oxyd, much harder than the original.
GAME 186 - Tetric - new Tetris type game.

COLOUR GAMES

GAME 11 - A Question of Snooker, Pinball, Devestator, Roll n Nudge, Ranger.
GAME 68 - Squidge, Fruit Machine, Pirr Game, Rocket Ball.
GAME 78 - Popeyed - a pop music game with an adult theme.
GAME 81 - Battlescape, Blox - brilliant variation on the Tetris theme.
GAME 83 - Grandad & the Holey Vest - superb animated adventure. 1 Meg+.
GAME 94 - Hacman 2 (1 Meg+), Dungeons, Wheel of Money 3.
GAME 104 - Blat! - A very nice version of Tetris. STE ONLY.
GAME 105 - Infiltration - 3D game. Ozone, Atomik Robokid. Great shoot 'em up.
GAME 117 - Fast Freddy - lovely platform game with superb graphics.
GAME 121 - Darklyte - great Isometric 3D war/strategy game similar to Hero Quest.
GAME 122 - Last Arcadian - fly around + blast everything. Hoverjet Simulator 1 Meg+.
GAME 123 - Top Trainer (horses), Anarchy Academy - wreak havoc in school. Boing.
GAME 128 - Dungeon Lord - good Dungeon Master Clone. Arch Mage-shoot em up.
GAME 131 - Glass Buttock of Tharg - save the land from the evil buttock! - 1 Meg+.
GAME 132 - Psycho Pig - two disk platform game, very cute. £3.50.
GAME 135 - Grey Matter - difficult brain teaser from DCS, Splat! Picardy, Galactic.
GAME 136 - Chaos 1/2 Meg version - classic spectrum game converted. 1 meg on GAME 146
GAME 139 - Grandad II - the sequel to Game 83, comes on 2 disks 1 Meg+. £3.50.
GAME 143 - Brain Damage - the biggest, most difficult brain teaser yet from DCS.
GAME 147 - Freaked Out - nice puzzle game. Shift-it (1 Meg) - another good puzzle.
GAME 148 - Operation Blue Sunrise 3 - massive STAC adventure game. 1 Meg+.
GAME 150 - Course Angler 1.02 - go tackle fishing on your ST!
GAME 151 - Sim Pig! - a brilliant pig farm simulation! Like Sim City & Sim Earth.
GAME 153 - Wormhole - nice vertically scrolling shoot em up with slick graphics.
GAME 154 - Midi Zap - multi-player asteroids. A Highly Suspicious Aquarium.
GAME 155 - Three Realms of Suspicion - STAC adventure. Spaceball - like Ice Hockey.
GAME 157 - B17 - bomb the buildings, F-16 - very good flight game, 8 missions.
GAME 158 - Viking III - shoot em up/strategy game. Demon - but like Xenon.
GAME 162 - Baby Mugluck - platforms + ladders, Entombed - more platforms!
GAME 163 - Theme Park Mystery, Combat - kill everything!, Summaria.
GAME 164 - The Obscure Naturalist - STAC graphic adventure 1 Meg, Dominoes, Slither.
GAME 165 - Quiz Master - quiz that actually has answerable questions! STE only.
GAME 166 - Nirvana - platforms, Pure Logic, Maze, Chain Reaction - columns.
GAME 169 - Megaline - four player Tron/Light Cycles, Insectoid, Cops n Robbers.
GAME 170 - Magic Tomb (1meg+), Hysula - great new 3D CK game
GAME 171 - Oxyd (1meg+) - superb puzzle/strategy game, Duck Dash
GAME 172 - Boffin Brothers - the best Trivia game yet! Excellent presentation!
GAME 173 - Loboty Invaders - uses hardware scrolling, stereo sound. STE only
GAME 174 - Bludgeon 1.1a - fantasy role playing with full colour graphics
GAME 175 - Trodonian's Creation - the sequel to Three Realms of Suspicion - STAC adventure
GAME 176 - The Heavy Bunch - Wild West game of gunfights, gambling etc, Spot It - puzzle.
GAME 177 - Fatemaster - superb arcade adventure/dungeons and dragons
GAME 178 - Argon, Out, Codename Bomb, Pyramid, Disk Hunt, Sirtet, Turbo, War Jeep, Plumber, Picker, Planet Man, Uboat, Ypsilon - 13 games!
GAME 179 - Asteroid, Bang 3, Battle, Bellum, Quiz, Blaster, Chunks, Europe, Explode, Fuzzball, Gems, Invaders, Megaroids, Micro, Octopod, Othello, Pac Man, Plant, Rockfall, Tanx, Tennis, Wall Street, Zappy
GAME 180 - Mystic Well, Deep Lair, Football, Harris Goes Skiing, Haunted House, Invaders, Jumpster, Roam, Stoneage Deluxe, USA, Zyxm, Firestorm
GAME 181 - Utopos 1.5 - very slick STE only Oids/Grav type game, Endurance - 3D game.
GAME 183 - Towers - a great new Dungeon Master Clone - the best yet! 2 disks (1 Mb+) £3.50.

BUDGIE GAMES - £2.75 EACH

BUGAM 83 - Cyberstorm, a very slick Defender game, really fast!
BUGAM 89 - Horse Racing Simulator for 1 to 5 players. Buy/sell and bet!
BUGAM 100 - Clad Hopper - lovely version of Manic Miner from the 8-bit days.
BUGAM 104 - Jetpack - another faithful clone of a classic Speccy game.
BUGAM 113 - Football Tactician - formerly a £20 release! Excellent!
BUGAM 119 - Football Tactician - the Premier League 92/93 season.
BUGAM 120 - Dungeon - traditional hack & slash game written in Talespin
BUGAM 121 - Super Scramble - take a trip to the 8-bit days with this shoot 'em up
BUGAM 122 - World Cup - the latest Football Management game from Budgie UK.

POWERFIST GAMES - £3.00 EACH

POWER 1 - Snott 93 - previously commercial playable platform game. 1 Meg+ (512 on POWER 11)
POWER 3 - Seven Galaxies - extremely slick shoot em up, one of the best so far.
POWER 4 - Hunchy 1066 - go back in time with some artillery for this classic!
POWER 5 - Deluxe Nostrum - great flip screen arcade adventure. 1 meg+.
POWER 8 - Power Cut - fly-around-blast-em-up with 25 power bases to destroy!
POWER 9 - Lord Ramsey in the 25th Century - great cartoon-style caper.
POWER 13 - Location Universe 3D - escape four taxing levels of this brill 3D game.
POWER 14 - Castle Capers - wonderland platform game set in a haunted castle.
POWER 15 - 'Ees Lost His Marbles! - Huge adventure written in STAC.
POWER 16 - Freaked Out 2 - the sequel to the great PD puzzle game.

ADR GAMES COMPILATIONS

ADR are a group of coders who take popular PD games, compress them so that loads can be fitted onto one disk and then run easily at the push of a button from a menu.
ADR 1 - Galaxian, Grav 2+, Kubes, Plop, Spacewar, Mega Depack 2.12
ADR 2 - Mrs Munchie (1 meg+), Utopos Preview (1meg STE), Night on the Town, Bloody Blade, Stormaze, Snack Attack.
ADR 3 - Balls, Violence, Kid Kong (1meg+), Happy Pac Worm, Llamatron
ADR 4 - Abominaball +, Floyd The Droid, Penquin, Super Match Maker, Fleet Street, Squish.
ADR 5 - Cybernetix, Rebound (1meg+), Hardcore (1meg+), Slug 2092, Grand Prix, Frogger.
ADR 6 - Fate Master, Castle Capers, Speed Packer 3, Square Off.
ADR 7 - Grandad (1meg+), Grandad 2 part 1, Critical Mass, Turbo.
ADR 8 - Grandad 2 part 2 (both parts needed), Prensorium+.
ADR 9 - Rush 2, H-Mec 2 (STE), Ozone 2, Blob Race, Breakout +, Atomik 3.6.
ADR 10 - Super Dark Pearl (1meg+), Operation Garfield (STE), Nirvana (trained), Pacmac (STE 1 meg+), Teserae.
ADR 11 - Glass Buttock of Tharg (1meg+), Invaders, Painter, Punt, Stomp.

MEGA-GAMES PACK ONE!

No less than ten disks crammed to the brim with archived games (de-archiver and printed instructions supplied) to squeeze on an amazing 117 games covering board/puzzle/strategy/arcade and adventure. For a full list ask with your order or if not ordering, send a stamp. All should run on a colour system with 512k and be STE compatible! You will need about twenty disks to unarchive these disks onto! AMAZING VALUE FOR MONEY.

117 GAMES – JUST £14.95!

ART & GRAPHICS

ART 1 - A disk full of 23 miscellaneous utilities including viewgif 1.2.
ART 51 - Crackart 1.36 - latest version of the best ST art package! 1 Meg+.
ART 128 - Gemview 3.00 - new version of this superb viewer/converter.
ART 157 - PAD 2.4 - English version of this high res drawing package. 1 Meg+.
ART 172 - Paintshop Plus 2.03 - A commercial quality drawing package.
ART 180 - Paintpot - an ex-commercial painting package which was £15.00
ART 187-196 - Temptation! Volume 1 - the first pack in a whole new range of top quality pictures of tempting girls! Two versions (please state which) - one for STFM and one for STE which takes advantage of a 32,768 colour palette! EXCLUSIVE to New Age PDL! Ten crammed disks at just £15.00.
ART 207 - Car Slideshow - brilliant Photochrome pictures, Near Photographic! STE Only
ART 209 - Erotic Dreams slideshow 1 - all pictures of Supermodel Cindy Crawford.
ART 210 - Erotic Dreams slideshow 2 - another disk of Cindy Crawford pictures.
ART 212/213 - POV Raytracer, the best raytracer around! 2 disks. £3.50.

DEMOS

DEMO 339 - STAX Hat Keinan Plan Demo
DEMO 336/337 - Traou'n Int Ket Bet Graet Ben Breman (2 disks) 1 Meg+ £3.50
DEMO 335 - Reality Is A Lie demo - 1 meg+
DEMO 328 - Ambience Demo By Chaos
DEMO 325 - Perpetual Dawn Demo. 1 Meg+
DEMO 323/324 - TNM Megademo. 2 disks £3.50
DEMO 320-322 - Froggies Over The Fence - Three disks! 1 Meg+ £5.00
DEMO 314/315 - Coding So Far Demo. 2 disks £3.50
DEMO 311-313 - Relapse demo - Three disks. STE Only! £5.00
DEMO 310 - Ecstacy 1, Ecstacy 2 - brilliant STE demos
DEMO 276 - E605 - a great STE only demo by Percy of Light.
DEMO 274/275 - Dreamzone - the latest megademo from the Wild Boys. £3.50.
DEMO 270-272 - The Omikron Megademo - takes up 3 disks! 1 Meg+ - £5.00.
DEMO 258 - Brutal Techno - Fantastic STE and 1 Meg only demo.
DEMO 242 - Music Dream II - 9 superb 50Khz tunes by E.I. - STE only.

SOUNDTRACKER MUSIC

TRAC 129 - Four, Progfunk, Cult 2, Cult 3, Federal Force, Rave 1.
TRAC 128 - Con, Short, House, Jewel, Spassong, Celtic 6, Rappit, A-Team, Sweet Dreams.
TRAC 127 - More Lemmings, Backpopped, Psychic 1, Bushfire, Donna 2, Ace Base, Echoing.
TRAC 126 - Scrambled Mind, 1+ World, Wyre It, Hope Part 2, Lotus Turbo 2, H-Metal.
TRAC 125 - The Loader Final, Artificial, Finally I Play, Space Journey, Sll1.
TRAC 124 - Donna, Hope Part 1, Meaty Man (1 meg+), Sll9, Piano TVA, Willow.
TRAC 123 - Electric Revenge, Telephone, Flash 4, Racer XXX, The Credits, View to a Kill.
TRAC 122 - Klisje PAA Klisje, Oldmac, Absolute Muzak, Glenz-Vector, Frog Mix, SNT Vector.
TRAC 121 - Enigma, Eve-o-War Remix, G-Loc, Galaxy, Ewok.

WORDPROCESSING (ANY RES)

WORD 1 - ST Writer Elite, EDI Text, Zap ST, ST Page, Typist, Desk Accessories.
WORD 2 - Mail Merger, Spell Check, Large Printer Maker, Count, Double, Convert.
WORD 4 - First Word + tools, Grammar checker demo, Spell Binder, Text Filter.
WORD 5 - Calamus Demo, no save function but you can print. High Res only.
WORD 9 - Calamus Support disk - loads of utilities for Calamus and fonts etc.
WORD 10 - Calamus Manual in the form of a CDK. (Disk not full).
WORD 12 - Papyrus Office Demo 2.26 - good document processor with fonts etc. 'H'
WORD 13 - Calamus S demo - fully functioning except save. 2 disks. £3.50. 'H' 1 meg+.

NEW AGE PDL (DEPT STU17), P.O. BOX 30, LEIGH-ON-SEA, ESSEX, SS9 4AD TEL: (0702) 480691

£1.75 EACH Unless otherwise stated

New Age PDL

UTILITIES (ANY RES)

UTIL 2 - Startgem, Head Start 1.1, DC Clock, Disk Checker, Hard Disk Utils, Ram Disks, Hack 'n' Copy, Turtle 3.0 (HD backup), Megaformat, Memory Test.
UTIL 4 - Pools 2.5, ST init 3.4, Switcher - loads programs faster, 20 DC utilities.
UTIL 5 - F-Copy 3, DC Showit, Desk Manager, Disk Scan, Mono Emulator 5, Spool, DC Stuffer (loads 32 accs), Speech Synthesiser, Mouse Accelerator.
UTIL 6 - James The Butler, London Phone Codes, MenuSYS, Pinhead, Super Calendar Batch Startup, Auto Sort, Postmortem, No Bombs, E-Disk, 9 Quick Utilities.
UTIL 12 - Jam Packer 4, Wind-XES (Modulator control panel), Satellite 4.01, Clock Set.
UTIL 13 - German to English translator, fast Print, DC Salvage, MiNT, Maccel 3.0.
UTIL 14 - Printer Drivers inc Canon Bubblejet, Qume Daisywheel, Brother + Epson.
UTIL 16 - Chameleon - loads and unloads accessories without having to reboot, Sticker 3.0 (mono only), Definitive File Selector, Super Virus Killer, Benchmark.
UTIL 19 - Your Second Manual, Jokes, GDOS info, Bombs info + several magazines.
UTIL 30 - Superboot 8.1, Build Your Own Scanner, Report Writer, Disk Cleaner.
UTIL 35 - Cheetah 1.1 (high speed copying util), Rainbow TOS patches, Unarj 2.2.
UTIL 38 - Printer Drivers inc: KXP 1124, Star LC24, NEC Pinwriter, Brother, Canon, Citizen, HP Deskjet, Oki, Qume, Taxan, Toshiba, Riteman, Atari.
UTIL 40 - Loads of packers inc: Atomik 3.5, Automation 5, Dragon 3, Fire 2, Ice 2.4, Pompey 1.9, Speed Packer 2, Branch Always Packer. + Multi Depacker 1.5
UTIL 42 - Intro Maker - mix pictures, sprites, scrolls and music together. Colour only.
UTIL 45 - Kaos Desk 2.01, Terra Desktop 1.36 - replacement desktops.
UTIL 46 - STOS Shoot em up builder kit 0.6 - colour only.
UTIL 51 - Form Finder 2.2 - horse racing predictor which is easy to use. Colour only.
UTIL 53 - TOS Version 1.0 - allows you to run programs that don't run on your TOS.
UTIL 54 - Message Scroller, Archiver Shells, Envelope Printer Demo, Mega Cracker.
UTIL 55 - Spectrum Emulator 1.2 - run Speccy games - includes Hobbit, Manic Miner 1 Meg+
UTIL 57 - Revenge Doc Displayer 3.0, Wordfinder 3.0, Desktop.inf configurator.
UTIL 58 - Career Themes Inventory and Personality Tester - great fun!
UTIL 59 - Neodesk patches - upgrades 3.01 to 3.02 and 3.02 to 3.03.
UTIL 60 - JC Label 1.3, Jon-Dos 1.7, Flowchart Compiler, Boot Time 2.0, Multisync.
UTIL 61 - Rename It, Zoo Archiver 2.1, Insert Date, Marrow, Shadow Ramdisk, Power DOS.
UTIL 62 - BJ Chrome 1.1, Desk Master, Crocery Lister, Silk Mouse, Auto Load, Blitz.
UTIL 63 - JC Calendar 0.3 - an extremely pleasant and flexible calendar maker.
UTIL 65 - Connections Multimedia - mix text, graphics, animation & sound. 1 Meg+ 'H'
UTIL 66 - Nation X utility disk - over 150 programs! Everything you need to get you started! Includes disk utils, diary, virus killer, packers etc. - highly recommended!
UTIL 67 - Label CAD 2.2 - design cards, posters etc. Document files on UTIL 68. 'H'
UTIL 70 - Route Finder 1.8 - Like Autoroute - plans journeys for you, Runecaster 'C'
UTIL 71 - Ponds and Watergardens - great tutor for this type of thing in pictures and text! 'C'
UTIL 74 - Award maker - easy to use program to create certificates with nice fonts, borders etc.
UTIL 75 - Idealist 3.4 - file printer that can save up to 80% of paper consumption! 2 disks £3.50
UTIL 77 - Before Dawn 1.25 - latest and biggest version of this screen saver. 2 disks £3.50
UTIL 79 - Spectrum Games - a disk full of games to go with the emulator on Util 55

BUSINESS (ANY RES)

BUSI 1 - Invoice And Statement Generator demo, Sales Controller - High Res only.
BUSI 2 - Sheet 2.0, Dbase One, First Base 1.6, Home Budget Template.
BUSI 4 - Opus 2.2 - brilliant spreadsheet. 1 Meg+.
BUSI 5 - WG Data, ST Sheet, Visi Clone - three more spreadsheets.
BUSI 6 - Double Sentry Book Keeping System, Address Book.
BUSI 7 - Astubank 1.1 at - complete home accounts system - colour only.
BUSI 11 - Compact Office Management Program 2.05 - for any small business, loads of features
BUSI 12 - Inventory PRO - keep track of stock levels, GP Patient Care for GP's ('H')
BUSI 14 - Data Techniques 1.41 - easy to use but powerful new shareware database system

MUSIC & MIDI

MUSIC 1 - Noisetracker 1.5 - a popular soundtracker creator with samples & source.
MUSIC 2 - Samples disk 1. works with most soundtracker creators.
MUSIC 7 - Hacker voice sets and songs for use with Quartet.
MUSIC 9 - Midi Magnet, Chord Master, Keys KMP, TX81z, Satellite (High Res only).
MUSIC 11 - Arpeggiator, Zeppelin, MIDI Beat, Project, Jukebox, MKS-50 - any res.
MUSIC 12 - Henry Cosh Sequencer, Composer - any resolution.
MUSIC 13 - Drum Patterns for Cu-Base in standard MIDI format - any resolution.
MUSIC 16 - Yamaha PSS790 Editor, includes loads of sample voices.
MUSIC 22 - Alchemie Junior 2.2 - sequencer with real-time, multitasking etc. High res.
MUSIC 23 - Sound Merlin - good ex-commercial program, Mozarts Dice Waltz - compose music without musical knowledge. High res only.
MUSIC 24 - Octalyser 8-track tracker - STE only, Protracker 2.1, YM Tracker.
MUSIC 25 - DR T's Omega II demo of their amazing new sequencer. 1 Meg+.
MUSIC 26 - PSS Utilities disk, loads of programs including patch editor, librarian etc.
MUSIC 27 - Casio CZ sounds, 32-track sequencer, Kawai K1 editor, MIDI menu.
MUSIC 28 - Editor and Librarian for Yamaha TX1Z, MIDI rat, Switcher, High res only.
MUSIC 29 - Kawai K1 synth sounds.

EDUCATION

EDUC 1 - Kid Music, Kid Notes, Kid Piano, Kid Puzzle, Kid Graph, Rebus Writer.
EDUC 2 - Kid Grid 2, Kid Mixup, Kid Publisher, Kid Sketch, Kid Story, Kid ABC.
EDUC 6 - Maths Made Easy, Kid Shapes, Kid Shapes Plus, Race Cards.
EDUC 7 - Michaels Big Adventure - colourful graphics, easy to play. Age 8+.
EDUC 9 - Bodyshop, Computer School 2 & 3, Butterfly in the Park.
EDUC 12 - English Conjugation System, Pure Logic, Phonics, Key Capers.
EDUC 16 - Franglais 1 & 2 - French Tutors, Me First 2.0, Numbers, Slimming.
EDUC 18 - Spanish Verb Tutor, World at Risk, About the House, Perfect Match.
EDUC 19 - Computer School 4 - tests reflexes, memory, logic, coordination etc.
EDUC 20 - Easter Egg Hunt - pleasant adventure for 7-12 yrs without violence etc.
EDUC 21 - G.C.S.E. Higher Maths Grade Tutor, Franglais 3 - French Tutor.

C.I.A. WORLD FACTBOOK

Four disks crammed with information about the world, covering 247 nations and their populations. An absolute mountain of knowledge useful for research. Also covers weights and measures and contains a complete Chemistry Reference Book. Amazing!! EDUC 23-26.

£6.50

EDUC 22 - G.C.S.E. Chemistry Tutor - all you need to attain grade 'C' or above.
EDUC 27 - Mastertime - brilliant time tutor, Simple Cinema, Weather Time, Human
EDUC 31 - 1900's USSR - a very good interactive learning system.
EDUC 33 - Sample Time, Picture Time, Add Up - great learning programs just for kids.
EDUC 34 - Malsys, Geo Puzzle - learn the countries of all the continements graphically. 'H'
EDUC 35 - Math Circus, Ellie Mouse Colouring, Piggy Bank, Seaside - more kids programs.
EDUC 36 - Benjamin's ABC - teaches the alphabet using speech and pictures.
EDUC 37 - From Picts to Parliament - a textual and graphical look at British history.
EDUC 38 - Knowledge Vine Add Up - nice maths title in the form of an arcade/adventure.
EDUC 39 - Mini Magic Storybook - cut down version of the successful commercial packages.
EDUC 40-42 - World War II - look at life on the Home Front during the war. 3 disks. £5.00 'H'
EDUC 43 - Professor Clever 2 - teaches kids aged 5-11 about numbers, spelling and time
EDUC 44 - Witches, Mice and Fairy Tales - collection of nice games for children

PROGRAMMING

LANG 1/2 - Sozobon C Compiler release 2. Includes documentation, shell etc. £3.50.
LANG 3 - C Source code, loads of routines including documentation.

GNU C++ COMPILER 2.1

This five disk set is archived and will need to be unarchived to a hard drive before use. It also requires at least 2.5 meg of memory. This is intended as a developers version - ie not for novices. LANG 5-9.

£8.00

LANG 11 - GFA Basic programs, includes runner program. ST Basic 1 programs.
LANG 13 - Professional GEM guide - 17 chapters of tutorial with C source.
LANG 16 - STOS Tutorial and various Basic programs.
LANG 24 - C Adventure Toolkit - the very best adventure creator available.
LANG 27 - GFA Basic v 2.0 - GFA Expert - a nice GFA Basic tutorial.
LANG 29 - STOS Tracker - adds a new set of STOS commands for Soundtracker.
LANG 33 - Coronado Enterprises C++ Tutorial 2.0 - 12 chapters + source.
LANG 35 - Ultimate GFA Database 1.7 - loads of references to GFA articles.
LANG 36 - STOS Extensions: Missing Link, Misty, Blitter, MIDI, STE, + 7 more!
LANG 37 - STOS Software pack 1 - millions (almost!) of routines etc.
LANG 38 - Robert Annets Source Code disk - from the author of Shockwave.
LANG 40 - Mospas Pascal Compiler and utilities.
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LANG 46 - XLISP 2.00 - object oriented programming language with a huge 84k manual.
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ARE YOU A PROGRAMMER?

We always endeavour to get the latest software into our collection as it becomes available and usually the fastest way to do this is to obtain the software straight from the author. If you have written something which you think is worthy of inclusion then send us details and if we like it then we will contact you to arrange a swap.

BEGINNERS GUIDE TO STOS BASIC

This is a complete programming course for all ST/STE's consisting of a 618 page, ring bound course manual plus two double sided disks with over 190 programming examples! 26 chapters will take you through step-by-step how to create shoot em up's, art programs, junior educational programs, GCSE maths programs, databases, word processors, music programs, and much, much more. Recommended retail price is £39.95 plus postage but we are doing it for an amazing £29.95 plus postage (£3.00 UK only). Read the box below for details of our unmissable EXCLUSIVE software mega-pack!

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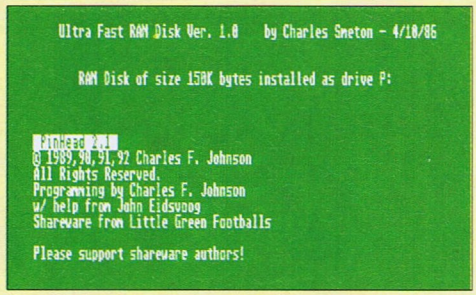
Pinhead

Supplier: Public domain

When I first stumbled across this program and installed it in my Auto folder, I thought I'd just try it once and then delete it. I was somewhat sceptical as to whether Pinhead, with its sole aim in life being speeding up the loading times of other programs, would prove effective. In fact, it makes a noticeable difference, especially for floppy drive owners.

Needless to say, since then Pinhead has become a permanent addition to my startup procedure. Don't dismiss it, thinking it saves you merely a few seconds here and there.

Pinhead takes up relatively little disk and memory space, and will in the long run save you valuable time which you could be employing far more productively than simply waiting for applications to load.



See this brief message and you'll notice the difference in speed whenever your ST accesses the drive

25 essential programs for your ST

Dave Cusick presents a selection of utilities that you can't afford to be without

XBoot 3

Supplier: HiSoft (0525 718181) ● Price: £35

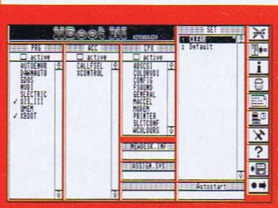
Desktop accessories and Auto folder programs are all very well, but if you own a hard drive you may well find that before long managing them becomes a horrendous task.

For instance, only the first six accessories the ST finds will be executed, so what happens if you only want a certain accessory loaded some of the time? Simple, you buy XBoot.

The most powerful boot-up management software around, XBoot allows you to select which ACCs, Auto folder programs, and DESKTOP.INF files are loaded and create various set-ups to suit different applications you use.

It also lets you launch another program when quitting, allowing you in effect to bypass the desktop altogether if you so choose.

However, while XBoot is indispensable for the hard drive user, floppy owners might not consider it worth the rather hefty price tag.



Ensure you have XBoot organising your boot-up procedure; it makes light work of selecting ACCs and Auto programs to install

View 2

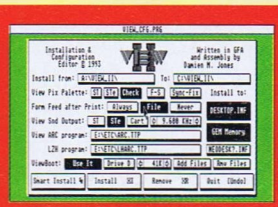
Supplier: FaST Club (0605 455250) Price: £14.95

Anyone who has seen the Amiga's Workbench 2 or even Windows on a PC will appreciate how valuable data file viewers can be for organising disks.

What is that cryptically named JSAPAIRS.PI1 file a picture of? And what is that mysterious CASELFSH.SPL sample anyway? Questions like this need no longer be a problem.

View 2 is essentially the ultimate file shower. You can read text files using the mouse, view 16 different types of picture file in whatever resolution you happen to be in, list and extract the contents of archive files, play samples in a multitude of formats, and even view SEQ and DLT animation files all directly from the desktop.

What's more, View 2 takes up no memory at all when installed on a hard drive system, and can be placed in RAM for speed on a floppy system where it takes up less than 48k. A RAM disk and clock-setter are also included. It's a utility that no serious ST user can afford to be without.



View all manner of files from your desktop with the excellent and versatile View 2

Harlekin 3

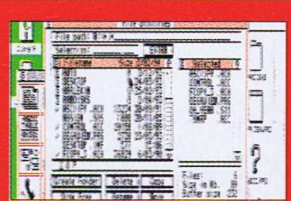
Supplier: HiSoft (0525 718181) ● Price: £50

Because the ST annoyingly limits users to having a maximum of six desk accessories installed at any one time, a variety of "do-it-all" ACCs which take up just one of these six slots have sprung up.

By far the most pleasant to use are the Harlekin series, as long term readers will no doubt be aware having used the original which was given away by *Atari ST User* in May 1992.

Not only does Harlekin provide a plentitude of file management facilities, but it also lets you change the screen font, organise your time using the built-in text editor and diary, and fiddle about with the desktop settings, to mention just a few of its many abilities. It incorporates a RAM disk too.

Harlekin is so convenient and useful that you'll fall in love with it in no time at all. However, it is quite memory hungry, so it's not really worth thinking about unless you've got at least a 1Mb machine.



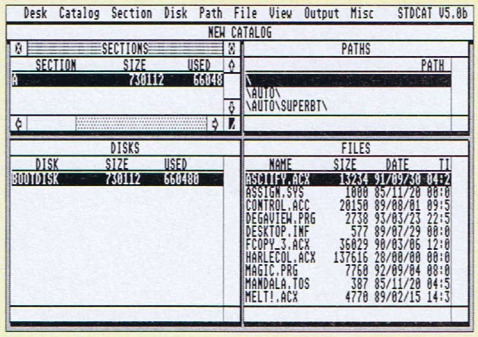
Harlekin incorporates a powerful file selector with some of the features of UIS and the Little Green Selector

Std Cat

Supplier: Public domain

If your software collection spans dozens of floppies then you've no doubt wished many times that you had a convenient and quick way of cataloguing your files. You need look no further than Std Cat, a friendly and understandable GEM-based program designed for just such a task.

Four windows on the screen show various disk and path listings, and once you've let the program read all the directories you want cataloguing you can get the results on paper using the print option. No more will you have to spend hours looking for that elusive First Word file.



Make cataloguing your disk collection a simple task with Std Cat

The ST is a great machine to work with thanks to its friendly GEM interface and relatively instant accessibility. However, after a while the experienced user will undoubtedly begin to notice various inadequacies within the operating system and will want to remedy the situation as quickly and as cheaply as possible.

Fortunately, the ST is a well-established computer for which a plethora of useful utilities are available. Most are competitively priced, and in fact a good proportion of the "must have" programs can be obtained for little more than the price of a disk, through the numerous ST public domain libraries.

Imagine for a moment that you're in the middle of a stunning creation in Hyperpaint when you realise that you haven't got round to formatting those brand new disks yet to save it on.

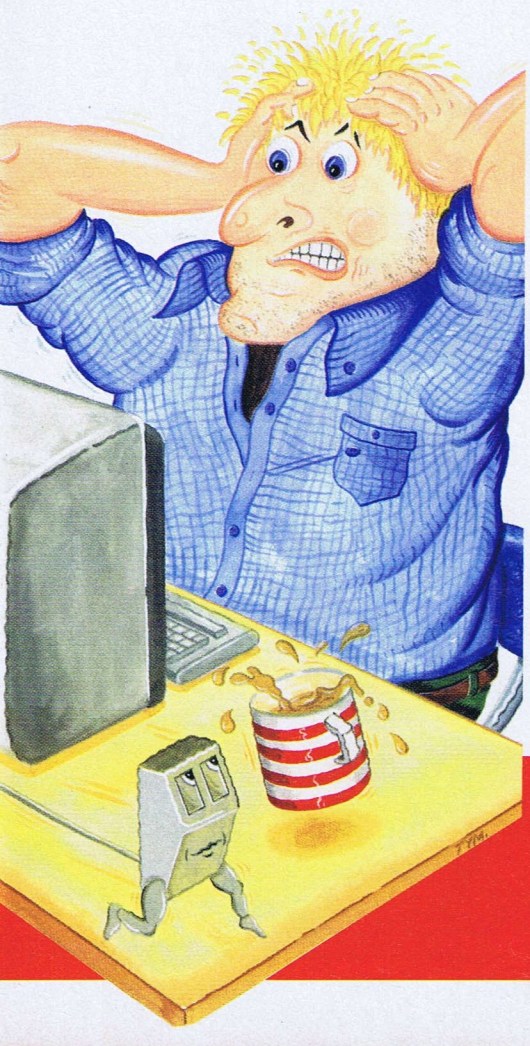
At this point you panic – unless, that is, you've got FCopy 3 running. A quick click on the Desk accessories menu and you can have that disk formatted in a matter of moments. Save the picture and rest easy that the product of your last few hours' work is safe.

Of course, the programs that follow are not all accessories. Some are utilities that make your life as an ST user so much more pleasant that you'll wonder how you ever managed without them.

LURKING

If you're sick of cursing the desktop whenever it flashes up the message "You cannot drag files or folders on to the desktop", then you need Neodesk. Terrified that there's a virus lurking in the boot sector of your 40Mb hard drive? You want UVK.

So here then, in no particular order of merit, is a guide to 25 programs that you'll find invaluable in everyday ST life.



Ultimate Virus Killer 6.0

Supplier: Douglas Communications (061-456 9587) ● Price: £12.99

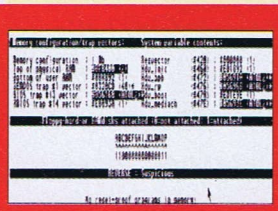
Every computer user dreads a virus attack. At best viruses can damage valuable files, and at worst they can effectively wipe out whole diskfuls of data.

With viruses all too common these days, it's definitely better to be safe than sorry and so an effective virus killer is essential – and they don't come much better than UVK.

Constantly being rewritten and upgraded, UVK leads the field in terms of the sheer number of viruses it can detect and deal with. This latest version can also be installed as a desk accessory, making it particularly useful for checking suspicious disks during a work session.

Douglas Communications have also come up with a good idea; while you can buy UVK 6.0 for £12.99, paying £9 more gets you the next four upgrades sent as and when they are produced.

Since upgrades normally cost about £6 and are pretty much essential if you want real peace of mind, this is an offer you'd be well advised to take up.



If you want to avoid unpleasant virus infections such as this, there really is no alternative – you need UVK

Universal Item Selector 3.3

Supplier: FaST Club (0602 455250) ● Price: £14.95

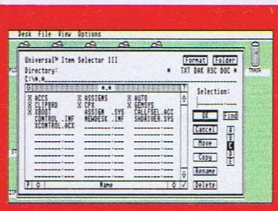
"Why do I need an file selector when GEM has its own?" I hear you ask. "After all, file selectors only select files."

Well, that's just my point. If you've got UIS installed, whenever you are asked to select a file to load or save from within any GEM program, UIS bobs up instead of the GEM selector and a host of other options are at your fingertips.

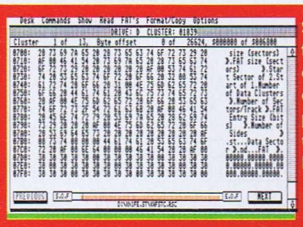
You can create new folders, format disks, copy, move and rename files, print directory listings, set file attributes... the list goes on and on.

Commonly used paths can be stored, the dialogue box is resizable, free RAM and disk space can be checked, and text files read or printed out – and that's by no means all.

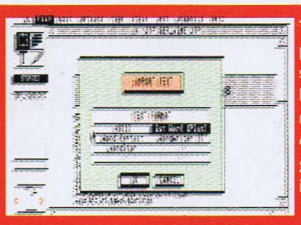
If by now you're not already wondering how you've survived this long without UIS, then I suspect you should be confined to a padded cell for some time to come. Only a masochist would be without it.



Who needs the GEM file selector? UIS can offer far more features



Salvaging files from damaged disks is possible with the reliable Knife ST



Timeworks publisher will suddenly become infinitely more productive once you've got FPprint installed

Load DESKTOP.INF files on the fly with Deskswitch

Knife ST

Supplier: HiSoft
(0525 718181) ● Price: £10

Although it's hardly a new product, Knife ST must still rank as one of the most useful utilities an ST owner could possess. Designed as the ultimate disk and file editing tool, it has still not really been challenged for that crown.

When those dreaded "Data on the disk may be damaged" messages appear, simply whip out Knife and have a stab at recovering some of that valuable data.

As well as basic features which are simple for anyone to access, it also enables knowledgeable users to mess about with things like the File Allocation Tables if the mood takes them.

Don't leave it until a disk dies, taking with it your entire un-backed-up life story lovingly crafted over a couple of thousand hours hunched over the keyboard.

Knife might not work every time, but the fact that it can succeed at all in such a life-saving job makes it more than worth the negligible asking price.

FPPrint

Supplier: Public domain

FPPrint is another one of those really useful programs which make your ST infinitely more usable. Pop it into your Auto folder and you'll be informed that it has installed itself.

Then it will continue sitting patiently in the background until you come to print out some work using the notoriously slow and cumbersome GDOS, at which point it will leap into action. It replaces the standard GEM printing routine with its own assembly language version and delivers huge increases in speed in the process.

Programs like the aging Timeworks Publisher and Hyperpaint, which have always been somewhat annoying in use due to apallingly long print times, will become a pleasure to work with following an injection of speed from FPPrint.

But perhaps its two most stunning features are yet to come. Firstly, it is freely available in the public domain, and secondly, it checks in at a tiny 287 bytes and therefore is a program no serious GDOS user should be without.

Deskswitch

Supplier: Public domain

A little gem from Little Green Footballs software, Deskswitch is a godsend for anyone who hasn't yet replaced the standard desktop with one of the better alternatives.

With the ST's desktop you can save your preferred configurations as DESKTOP.INF files, but in order for your ST to take notice of this file the Control Panel accessory (or the newer CPX system) has to be installed every time you boot up.

Neither of these programs is particularly small and as a result valuable memory is wasted, and disk space too if you're using a floppy-based system. Fortunately, help is at hand in the form of this Read-only Control Panel accessory. It reads the DESKTOP.INF file from your boot drive and sets things up accordingly, but does all this in less than 1k of code.

It also enables you to load DESKTOP.INF files whenever the desire takes you, saving you the bother of having to reconfigure things if you're not quite happy with the setup.

Mouse Tricks 2

Supplier: FaST Club
(0602 455250) ● Price: £9.95

Let's face it, the standard Atari mouse feels just a little bit sluggish when you're dragging it around the desktop. Wouldn't it be nice if you could add a little bit of zip to it?

Several other programs mentioned in this article incorporate mouse accelerators, but none of them can claim as many features as Mouse Tricks, a program dedicated to improving the pace of your reliable rodent.

As well as allowing you to select different mouse set-ups for different programs, MT2 has a virtual screen utility for STE owners which lets you scroll smoothly around screens larger than the area you can see on your monitor. There's also a text reader which can be used from within other GEM programs, which is extremely useful if you're finding your way around a new piece of software and you want to peruse the README.DOC from within the program.

Mouse Tricks 2 also seems to quite compatible with other accessories and applications.

Superboot 8.1

Supplier: Public domain

If you only own a floppy drive system or you simply don't want to splash out on XBoot, then this powerful shareware alternative is ideal.

It can boast many of the same features of its commercial rival, although it doesn't allow you to use the mouse in the selection process and must be configured using a separate program which is supplied with it.

It offers a nice range of options too, such as playing a sample or displaying a picture while loading.

You can also force Superboot to ask you the time and date every time it runs, so that even if you don't own a battery-backed clock you can still have all your files date-stamped for easy recognition at a later time.

I'd strongly recommend using a boot-up manager, if only as a convenient means of choosing which ACCs you'll need available during a word processing session. Superboot is excellent value and comes strongly recommended.

Little Green Selector

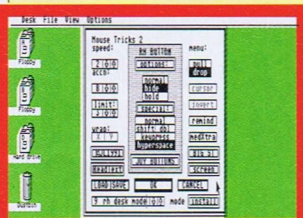
Supplier: Public domain

A cheaper alternative to the Universal Item Selector (mentioned elsewhere), LGS perhaps pales a little when compared to its rival but is nevertheless a firm favourite of many users, and is still leaps and bounds ahead of the standard GEM version. Keyboard short-cuts make using some of the selector's powerful features that bit quicker.

It is also able to communicate with Codehead's utilities, Multifile and MultiDesk, both of which are public domain, making it possible to use Multifile to perform functions such as showing and printing files and formatting disks whenever LGS is called.

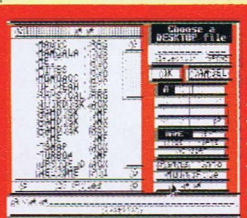
If you've forgotten where you put that important DTP project then you can use the LGS rapid file searcher, incorporating wildcards if you so desire.

If you've still got TOS 1.0 or 1.2, LGS even lets you "flush" out the folder count as a way of avoiding the infamous 40 folder bug. However, doing this through LGS is not as reliable as using the public domain FOLDRXXX.PRG.

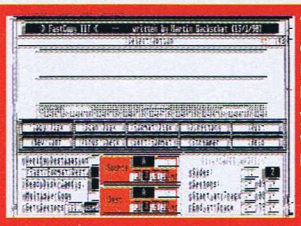


Inject some speed into your rodent courtesy of Mouse Tricks 2

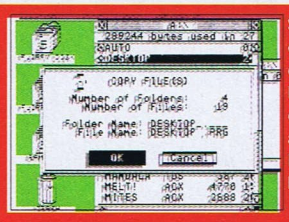
Superboot in all its glory. This is v7.4, but a new version, 8.1, is now available in the public domain



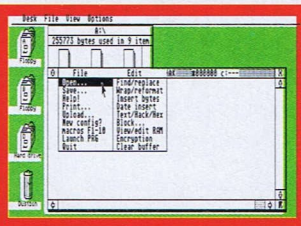
A wealth of handy file utilities are at your fingertips when you're running the Little Green Selector



The king of ST disk copiers, Fastcopy. If you haven't got this yet, it's about time you did have!



Spot the clockface if you can. It and the Fuji logo (top left corner) are both animated. Pointless, but lovely



The ultimate Ascii file cruncher and more besides. EdHak in all its glory

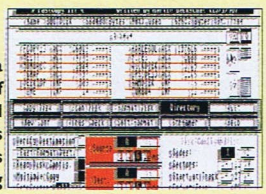
Fastcopy 3

Supplier: Public domain

The ultimate in the field of disk copying and formatting, FCopy can be run either from the desktop or as an accessory. It carries out its duties with a startling turn of speed, and has an intuitive interface with keyboard short-cuts for most primary functions.

As an example of FCopy's pace, a floppy can be formatted in around a third of the time that the desktop takes to perform the same task, and extended formats can also be used although, as ever, it's best to use reliable brands of disks if you're going to do this because otherwise you might be risking valuable data.

Basically there is not a single copier in existence which can touch this little gem.



FCopy offers a variety of powerful features including this directory listing

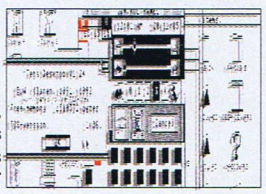
Fujiwatch

Supplier: Public domain

Alright, so this is about the least useful thing to come along since the toasted sandwich-maker, but nevertheless it has kept its place in my Auto folder for some time now.

Basically Fujiwatch is a combination of two purely cosmetic programs: Fujidesk and Beewatch. The former places a revolving Fuji sign (the Atari logo) in the top left corner of your desktop, while the latter switches the busy bee icon which appears during disk accessing for a watchface featuring moving hands.

Fujiwatch is also supplied with a little configuration utility which allows you to configure the speed at which the Fuji logo turns, and other such essential features. All in all, a touch of class to your desktop.



In medium res, Fujiwatch adds a touch of class to any ST

EdHak 3.0

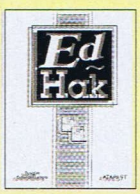
Supplier: Douglas Communications (061-456 9587) ● Price: £14.99

At its most basic level, EdHak could be used as a simple word processor for dealing with Ascii files and the like, although there are much cheaper PD alternatives.

But using it as a mere text editor is really not making the most of EdHak's potential because the program also lets you fiddle with disk sectors and even your ST's memory.

It can also be run as a desk accessory, eating up 116k in its full configuration but occupying a much more compact 22k in the cut-down Diary version.

Features include the ability to load files of almost unlimited size thanks to the clever idea of loading what fits into memory and then buffering the rest on disk until needed.



Zapenu

Supplier: Public domain

Anyone with a hard drive will appreciate what a chore it can be wading through numerous directories and sub-directories just to find that blasted program you want to use.

Zapenu can put an end to such timewasting by presenting you with a menu from which you can execute any program at the drop of a hat.

It is a simple and quick task to configure it, using a set of icons across the bottom of the screen to input file names and paths and even dummy menu entries which can be used to provide descriptions; for example, Utilities: could be placed above several useful programs. Once done you'll be able to leap straight into applications and utilities without any delay.

As with many accessories and utilities these days, the facility to call up the file selector at any time is also available. This is primarily for use with replacement selectors such as those mentioned elsewhere in this feature (although of course the standard TOS one is also available).

Mandleboot

Supplier: Public domain

Viruses can be a real pain, but short of checking all your disks regularly with a good virus killer such as UVK how can you be sure that your disk collection is not infected?

No problem. Stick Mandleboot on your boot disk using the simple installer program (which incidentally plays some nice tracker music at you on loading).

Then every time you boot up, you'll be treated to a nice Mandlebrot set drawn in about four seconds flat.

This impressive piece of coding fits neatly inside the boot sector of the disk, which is where viruses usually hide, so if you don't see the Mandie when booting you know that you ought to check the disk for viruses.

It's such a simple and indeed wacky idea that I must confess I was very keen on Mandleboot. Just don't forget that installing it on commercial games disks is a definite no-no since it's liable to permanently ruin them.

Sebra

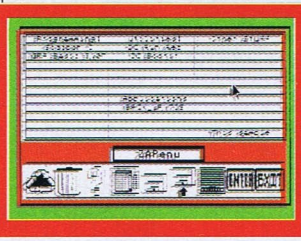
Supplier: Public domain

There are several mono emulators, written with the aim of bringing software which was previously restricted to mono systems to those without the urge (or finances!) to actually own one for themselves.

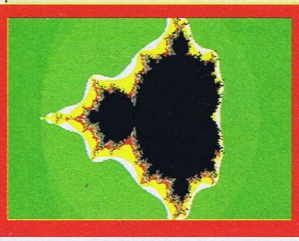
My favourite is without doubt this little offering from Patrik Persson, which enables hi-res screens to be displayed reasonably clearly on an ordinary colour monitor or TV.

Admittedly the screen update is far from rapid, and sometimes the high-res writing is near impossible to read. However, Patrik has thoughtfully included measures to overcome some of these difficulties. Half of the desktop can be displayed at once with you then scrolling up and down to see various parts of the desktop, or you can have one of two different full-desktop views. There's even the facility to change the colours of your mono desktop; as well as an inverse option.

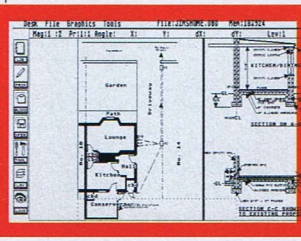
It worked perfectly happily with the mono-only programs I tried, although inevitably there will be the odd few which still stubbornly refuse to run.



Leap into any program at any time courtesy of Zapenu's simple but effective interface



What program safeguards your disks and presents you with a pretty picture every time you boot up? Mandleboot, that's what



Run hi-res programs on colour monitors using Sebra, another gem from the public domain

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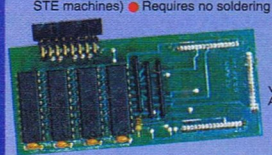

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N.B. Due to the large variance in design of the Atari ST, there is a small minority of boards in existence which may require a little soldering.

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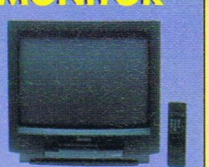

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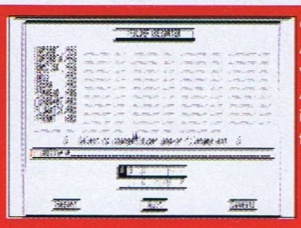
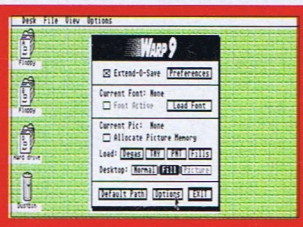
Yes, you too could convert this *Neighbours* grab into a stunning (ahem) T-shirt design, using Flexidump Plus



Organise your Auto folder with Autosort's instinctive front end



Add a turn of speed to your ST's everyday operations with Warp 9

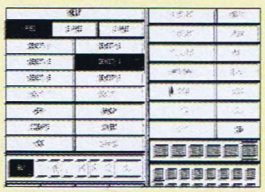
Flexidump Plus 2

Supplier: Care Electronics (0923 894064) ● Price: £39.95

Creating glorious technicolour works of art on your ST is all very well, but if you want to share your masterpieces with the world at large, you'll need a decent printer and a copy of this handy utility.

You can print out pictures to paper sizes larger than A4, do colour separations if you don't have a real colour printer, and import pictures in loads of file formats. It has a Smooth option for avoiding jagged edges on printouts, and can even be used for printing out T-shirts.

In short, if you require high quality printouts there really is no alternative. Most art programs print pictures, but none of them comes close to Flexidump Plus standards.



Using the PD demo version should be enough to convince you that you need Flexidump

Autosort

Supplier: Public domain

Sometimes it makes all the difference which order programs in your Auto folder run in. If you've got Pinhead installed, for instance, you want that to run early on so that you can take full advantage of it. If you're using Superboot, it has to be the first Auto program to load so that you can select which others you want installing.

Running Autosort from the desktop brings up a list of all your Auto folder files and you simply drag them around until you've arranged them in the order you want and then click on Resort.

Basically that's all there is to it, but you'd be surprised how useful it can be, particularly if you're experiencing problems getting a program to install.

As with all shareware programs, if you find Autosort useful you really should send the author a donation

Warp 9

Supplier: FaST Club (0602 455250) ● Price: £29.95

One of the fastest and most widely compatible software accelerators around, Warp 9 boasts the ability to boost your ST's speed so much that once you've used it you'll never want to live without it. It does this by replacing the sluggish GEM routines with its own optimised assembly versions.

Instead of watching the ST potter through drawing windows and listing text, you'll see it perform these actions near instantaneously, thereby giving the now aging GEM interface a new lease of life.

But that's not all Warp 9 has to offer. A mouse accelerator option is included, as is the facility to use custom screen fonts and desktop pictures.

ViewGIF 1.2

Supplier: Public domain

For a long time I experienced difficulties in trying to view various picture files given to me by Amiga and PC owning friends because the file formats used on the ST are so radically different.

The answer to my problem was ViewGIF, an effective GIF displayer which will no doubt already have a place in the collection of every comms buff in the country.

For those of you not familiar with the world beyond the ST, GIF files have become something of a standard format for inter-computer picture exchanging.

Bulletin boards almost exclusively use the format, and if you want to be able to witness the many impressive pieces of computer art that are out there, you'll need a viewer such as this. It can also convert files into widely used ST formats such as Degas and IMG.

You'll feel completely at home with the GEM interface and considering the amount of decompressing which ViewGIF is doing when displaying GIF files, it's not too bad for speed either.

Maxidisk

Supplier: Public domain

Everybody needs a RAM disk. They speed up dramatically operations like de-archiving coverdisk programs, or transferring large amounts of files from one floppy to another.

There are scores of RAM disks in the public domain, but most are basic affairs which simply grab a specified amount of RAM for the disk. Normally this amount can't be changed unless you reboot.

A few are dynamic, meaning they automatically resize themselves depending on how much data is being stored in them. Mortimer, a Harlekin-style do-it-all desk accessory costing around £15, features a RAM disk that falls into this category.

Maxidisk isn't dynamic, but instead automatically compresses data copied to it so that a 500k disk could store about 750k of data. This is an incredibly useful feature for users with limited amounts of memory.

Maxidisk also scores points because you can choose to automatically copy files into the RAM disk on boot-up, so that they're there ready and waiting when you need them.

Neodesk 3

Supplier: Electric Distribution (0480 496666) ● Price: £30

If you've never used a replacement desktop, you'll probably consider the GEM effort to be a friendly and powerful graphical user interface. In fact, unless you've got TOS 2.0 installed then the reality is you'd be a lot better with Neodesk.

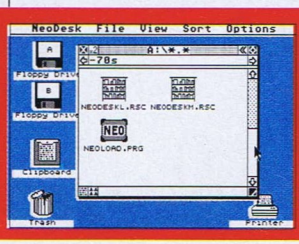
It boasts all the features the GEM effort should have had. For example, different files can be assigned individual icons. These can then be positioned anywhere on the desktop instead of just inside windows to enable you to access commonly-used programs quickly.

File handling is far better too, and a wealth of other features such as the option of having a picture as the desktop backdrop lift it above the opposition.

Since Neodesk certainly isn't the only alternative desktop around you might want to consider trying one of the several noteworthy PD offerings, such as Teradesk and Kaosdesk. However, these are far less sophisticated and if you're really after the best then Neodesk is the desktop for you.

View files from all around the computer universe with ViewGIF

Maxidisk will dramatically speed up the de-archiving of CoverDisk programs



Throw out the standard desktop; what you want is Neodesk, a sophisticated and far superior alternative

Driving on

Andrew Wright looks at new hard drives from two leading Atari specialists

The hard drive industry has been developing fast; two years ago a round-up of hard drives would have been based mostly on 30, 40 or 50Mb models but now 100Mb is the accepted minimum with 120 to 170Mb being about average.

Most suppliers find it hard to get hold of anything smaller because as prices drop, there's little point in manufacturing small drives.

If the market has changed, it has also undergone something of a mini boom in recent months. Both System Solutions and Ladbroke Computing are selling hard drives in surprising quantities, mainly as a result of the drop in price and because of the necessity of having a hard drive to run some of today's heavyweight programs that can torture a floppy drive owner to death.

BETTER LOOKING

The DataPulse drive reviewed in these pages is available for three quarters of the price it was a year ago – and it's far better looking, just as fast and just as quiet.

There has never been a better time to take the plunge and as a result we've decided to look at two of the drives that are making the running, both on price and performance – a 170Mb DataPulse from Ladbroke Computing and a 270Mb MiniS from System Solutions.

The MiniS 270Mb

System Solutions have entered the hard drive market in a big way with their innovative MiniS series of drives. These elegant drives are ensconced in a compact grey plastic case measuring only 8in x 6in x 2.5in and are ideal for crowded desktops.

If even that's too big, you can stand them on their side using the attached slide on feet and slot them into an even tinier space. The System Solutions logo looks smart and the units themselves are very light and easily portable.

The on/off switch and SCSI device switch are at the rear, unfortunately, along with the dual SCSI in and out ports and fan outlet. There's no room for a power socket on the rear panel so there's a 30cm external lead ending in a socket into which the standard power lead can be fitted. On the front panel there are two tiny but bright lights, a green one for power on and an orange one for disk activity. For use with an ST, System Solutions supply the Translator external host adaptor (see accompanying panel) while TT and Falcon owners will get a suitable cable.

The MiniS comes pre-formatted and partitioned with seven partitions from C to I, so you can plug in and play without worrying about setting it up.

PARTITION

The time will come, though, when you want to partition it to suit yourself, possibly with the more standard four or five partitions. To do that you get a disk containing the official Atari hard drive software that includes formatting, partitioning and driver installation utilities with a useful manual on disk.

However, it isn't as good as the ICD stuff available with Ladbroke's DataPulse and there's no read/write caching. For £10 extra you will soon be able to buy a new German-sourced hard disk driver from System Solutions which is claimed to offer much better performance.

The ICD RATEHD utility measures the drive's data transfer rate at a blistering 1,418k per second with an average access time of 15ms. This is pretty impressive by anyone's standards, but in practice the Atari software makes it feel pretty average.

Product:	MiniS 270Mb/Translator
Supplier:	System Solutions, The Desktop Centre, 17-19, Blackwater Street, London SE22 8RS
Telephone:	07536 933355
Price:	£359 with TT/Falcon cable (£399 with Translator, £419 with The Link)
Configuration:	Any ST, TT or Falcon

The DataPulse 170Mb

The DataPulse drive from Ladbroke Computing has always been a popular choice due to its excellent price/performance ratio, although when we last looked at one the main niggles were the single SCSI port at the back and a case that rather lacked style, despite being sturdy and well-built.

Ladbroke have addressed these criticisms by sourcing a new style case that looks as stylish as it is strong and which includes two SCSI ports for daisy chaining more than one device.

The DataPulse measures 11.5in x 10in and stands 2.75in tall. The case itself is made of grey coated metal on a solid metal base making it useful as a monitor stand and in environments where ruggedness counts.

Unfortunately, unlike the old style DataPulse, the on/off and SCSI device switches are at the rear which isn't the most convenient place. The case contains a fan but this can be disconnected on drives under a gigabyte and the unit is extremely quiet.

The front of the drive, with disk activity and power on lights, looks quite stylish although it's spoilt by having a beige panel that stands out from the rest of the all grey unit and the DataPulse logo is simply a cellophane strip. Other than that, though, the new case is a big improvement.

ST owners will need The Link to connect the drive (see panel) while TT and Falcon owners will need a suitable SCSI cable that costs £39.99.

LINKING UP

The Link includes special driver software but TT/Falcon owners will have to use Atari's own utilities (not supplied but available from most PD libraries) or buy the ICD Pro utilities for an extra £39.99.

A number of utilities are supplied with The Link driver, including some excellent formatting and partitioning software, MultiTOS-compatible CD-ROM drivers, the hard drive testing program RATEHD and the new trap handling program that lets you boot and load accessories and AUTO programs from any partition.

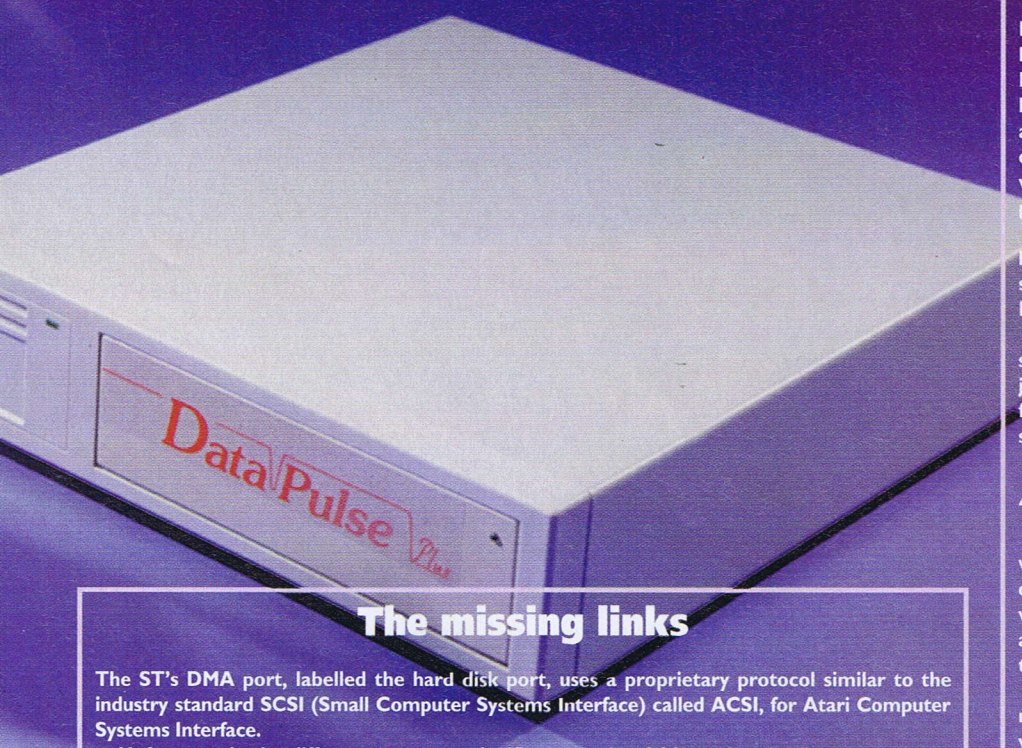
Ladbroke have also included a copy of Michtron's somewhat dated but still effective Turbokit which provides hard drive backup and maintenance.

Also on the disk, which is supplied already partitioned and ready to go, are dozens of PD utilities and demos of other Ladbroke products including Midi Studio Master.

Some are rather old and haven't been updated but it's a nice thought.

ICD's RATEHD utility shows a respectable data transfer rate of 975k/s with a 21ms average access time and the drive performs very well indeed, particularly with a decent sized read/write cache set up.

Product:	Data Pulse Plus 170Mb/ The Link
Supplier:	Ladbroke Computing, 33, Ormskirk Road, Preston PR1 2QP
Telephone:	0772 203166
Price:	£329.99 with TT/Falcon cable (£369.99 with The Link)
Configuration:	Any ST, TT or Falcon



The missing links

The ST's DMA port, labelled the hard disk port, uses a proprietary protocol similar to the industry standard SCSI (Small Computer Systems Interface) called ACSI, for Atari Computer Systems Interface.

Unfortunately the differences are too significant to plug SCSI devices in directly, so some form of host adaptor is required to convert ACSI signals to SCSI.

The Link, from ICD, is a small external host adaptor about three inches across that plugs into the standard 50-pin SCSI port on most SCSI devices and supports hard, CD ROM, magneto-optical and floptical drives.

An ordinary Atari hard drive cable links the adaptor to the ST. The Link only works with its own special hard disk driver software, currently at v6.2.4, which is supplied as part of the ICD utilities. The ICD driver is highly configurable and supports read/write cacheing.

System Solutions' own answer is the Translator which again translates ACSI to SCSI, but this time works with the standard Atari hard disk software and it should support magneto-opticals and flopticals.

The Translator has several advantages. It's cheaper than the ICD option; the cable and adaptor are a single unit and the use of standard Atari drivers ensures compatibility with more software.

On the down side, the lack of a read/write cache does reduce performance – look for a good shareware or PD cacheing utility if you take this route or get on to System Solutions and ask about the new German software.

In conclusion

Many people would say that a hard drive is a hard drive but they'd be wrong – very wrong. Both drives reviewed here come complete with host adaptor and software. Both are well built and both are lightning fast but as they're of different sizes and have different driver software, comparisons have to be carefully interpreted.

The relatively poor performance of the bigger MiniS is a reflection on the Atari driver software just as the better performance of the DataPulse is down to the ICD utilities.

Format them both in the same way with the same drivers and the MiniS comes out ahead, just as it should. Bigger drives are invariably faster, for technical reasons, so it can make sense to go for the biggest you can afford.

ADEQUATE

Having said that, of course, a 100Mb drive will be perfectly adequate for most Atari owners – the size is being driven by the PC world where under the clumsy Windows operating system a standard word processor can take up 15Mb or more.

If I had to choose between the two drives on review it would be pretty difficult. The 170Mb version of the MiniS comes in at £349 including the Translator – a bargain buy for an ST owner and a saving of £20 on the 170Mb Ladbroke model.

It also looks a little better, is handy to carry around and takes up very little desk space. However, for £20 extra you can have The Link instead of the Translator or for £10 invest in the new German software that should be available soon.

The DataPulse range costs more but for that you get much better performance from the ICD software and a more solid drive which will stand the weight of a monitor – an undeniably useful feature for many owners.

If you're fed up with floppies and want some real power, neither of these superb drives will give cause for regret.

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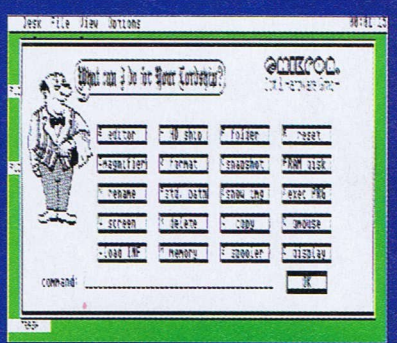

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Gamer, Atari ST User November 1993

Making the

In the second part of our DTP series, Andrew Wright looks at practical aspects of designing documents

Nobody has ever been able to catalogue the full range of documents that desktop publishing can produce, for one very simple reason – the list is endless. Wherever there's a need for written communication of some sort, most DTP programs will rise to the challenge.

In the course of a month, bread-and-butter DTP jobs might include mundane documents such as church newsletters and leaflets advertising car boot sales or school fêtes.

Slightly rarer are jobs like wedding service sheets, party invitations and menus for the local Chinese takeaway – but they're only the tip of the iceberg. If it can go on paper, you can produce it on an ST.

STRANGER

Home users can use DTP to produce even stranger documents still. You might run out of bridge score sheets, for example, or decide to redesign those useless check lists supplied with games like Cluedo.

In the last month, I've designed character sheets for a role-playing game, a personalised weekly calendar and "to do" list, and an A3 poster for a local charity. Who says DTP has to be boring?

Those of you with an active social life – or children – might well find yourself producing special party or even wedding invitations. The usual format is A5 as there's often very little to say (other than come and get drunk) and anything larger looks decidedly awkward. On the other hand, you might well be including a map or a list of directions, a wedding gift list or a tear-off reply slip.

Wedding invitations are normally printed on high quality card, in which case you can create a master for your local printer to use. Alternatively you can produce it entirely yourself, provided you have a reasonably good printer capable of printing to fairly stiff paper or thin card.

The choice of typeface is open but the norm is to use a script-style typeface – Zapf Chancery is the one most often associated with wedding invites – or the italic version of a common or garden serif typeface.

INVITATIONS

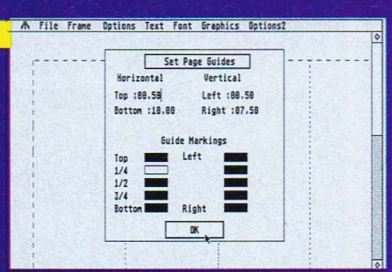
Don't just knock it up in half an hour and start printing though – remember to check that all the information is included. You'd be surprised how many commercially produced invitations can lack useful information like telephone numbers, starting times and even the location! All because of lack of care in the planning stage... Anyone who craves for that extra

Step-by-step guide to creating newsletters the easy way

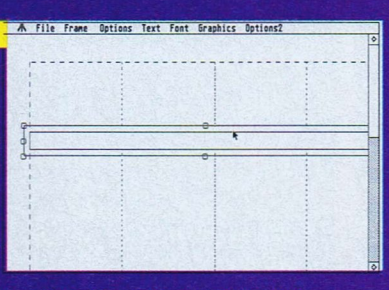
Budget packages like last month's CoverDisk giveaway, Easy Text Plus, can be used to produce high quality documents in just the same way as the heavyweights.

In this step-by-step example, we'll show you how to create a professional looking newsletter, applying many of the principles of good desktop publishing that we discussed last month.

1 I've a good idea of what I want, having first sketched out the design of this school newsletter in rough. This one will be a four-page A4 newsletter so I will create four A4 sheets for artwork which will be pasted together to make A3 masters for photocopying. Set the margins, in this case half an inch is fine apart from the bottom where I've left about one and a half inches



2 Easy Text Plus lets you place guidelines on the page to divide the page up four ways horizontally and four ways vertically. As I want to use a five by four grid, I'm only going to use the vertical guidelines in this case. As the masthead – the identifying plate containing the title of the newsletter – is going to occupy the top fifth of the page, I've placed the first frame roughly a fifth of the way down. It is part of the masthead and will eventually contain subtitles and other information

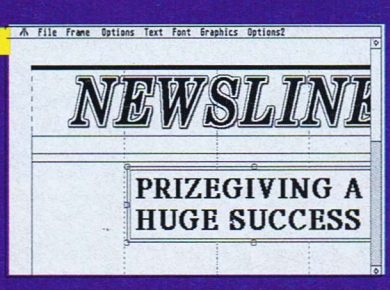


3 Next I've added another frame the same width as the first but much deeper. This will hold all the text and picture frames, drawing them together into a cohesive design. Don't overdo the border on these frames as they will then divert attention from the contents. With this done, the masthead itself can be added. Mastheads are very important features and they can be as complicated or as simple as you like.

Some can include graphics such as a corporate logo or a symbol relating to the field of interest being covered. A church newsletter might include a religious symbol such as cross while an angling club might have a fish, rod or hook. It is important that they don't change too much from issue to issue as they help give the publication an identity and an element of authority.

The masthead for this newsletter was created using Textstyle and saved as an IMG file. It was then converted to a high resolution Degas file using GEM-View, imported into Easy Text Plus and cropped to fit by pressing Alt-C and cutting out the desired section with the mouse. If you don't have Textstyle, you could achieve a similar effect in a paint package.

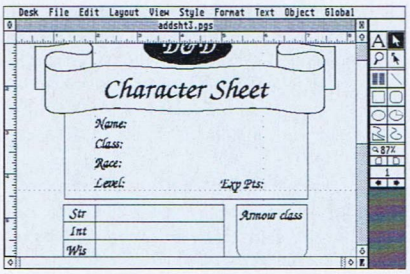
4 A black rule is added above the word NEWSLINE to complete the masthead and then the main headline is added. All news publications should have a lead story which readers are expected to read first. It's important to make it as obvious as possible, preferably using a big bold headline and in this case I'm simply using Dutch bold. Note that I'm running it across the right-hand three-quarters of the page as I've planned to include other items in a single left-hand "column"



DDD TTT PPP

Part 2

headlines



The sky's the limit as far as DTP is concerned – a character sheet for a role-playing game

social status will undoubtedly have tried creating letterheads and personalised stationery. There's more to it than snobbery, though, especially if you're in business or you want to impress someone.

Creating you own pre-printed letterhead with your own name and address at the top will certainly help you get noticed but it serves a more useful purpose – ensuring the right details are there for the recipient to see and use if necessary.

The easiest way to do them without the expense of a visit to the high street print shop is to design your own and print out a dozen or so at a time. Then, when you come to write letters, you can feed an already printed sheet through your printer and print straight from your word processor.

If you want to design your own but have them professionally printed in bulk – perhaps with some spot colour – you can always prepare a master on your ST and take it along to the print shop for a quote.

Designing a letterhead isn't easy. First you have to decide on the information to be included and then see where it looks best – yes, it's pen and paper time again.

The standard letterhead invariably has the name and address at the top right, perhaps with a little logo but it can also be centred or even split between top and bottom.

If there's one type of document that really lets you throw away the rule book, it has to be the poster. The aim of a poster is to attract attention and as far as design is concerned, anything goes. Well, almost anything goes.

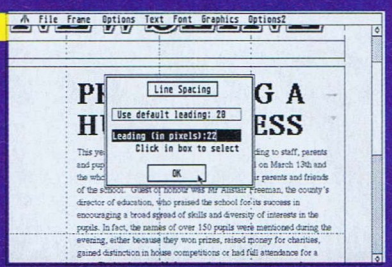
SUCCINCT

Two or three points have to be borne in mind, such as a brief, succinct message, a large text size so that it can be seen from a distance and accurate information so that anyone who reads it is no doubt about what and where the event is.

Using a DTP package to design posters requires large fonts and this is something that not all programs

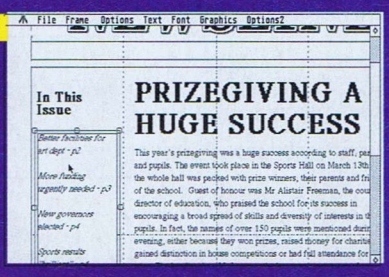
➤

5 The body text is added next. This is 12-point Dutch with a little extra leading (space between the lines) so that it takes up the whole of the front page exactly. If the story was very long it would have had to be continued on the next page, of course, but if it can be fitted on a page, so much the better

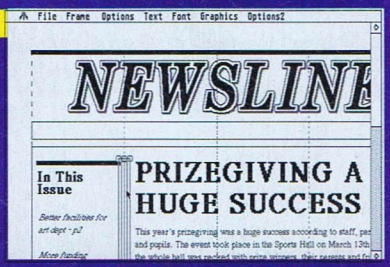


'A church newsletter might include a religious symbol such as a cross'

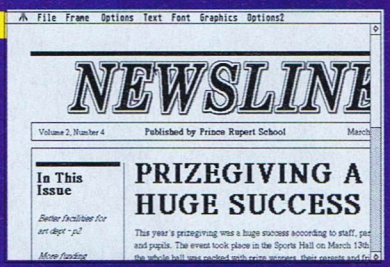
6 Now for the left-hand column. Another story could be inserted here but the page would be in danger of being text heavy. As there's no picture available, a strip of contents is a good alternative. In this example I've set the contents in Dutch italic, just to ensure they are sufficiently differentiated from the main story, and added a small title. As this title has to be at the same level as the main headline, we have to search for ways of ensuring that it doesn't detract from the headline. Here it is set in the same Dutch bold but slightly smaller, with lower case letters and sufficient white space to keep it separate



7 Stories and text can be separated further by adding horizontal or vertical rules. They have to be used in moderation (one vertical rule on a page should be enough) but they are very effective and help the readers pick their way from story to story and frame to frame without getting confused. How many times have you been reading an article in a magazine or newspaper, come to the bottom of a column and had to search around for the rest of the story?



8 The finishing touches include the important information to finish off the masthead and a quick check to see that everything's where it should be by turning off the guideline display for a completely uncluttered view. Next stop the printer!



DDD TTT PPP

➤

are equipped with. In any case a large font – say a 72-point display font – requires a lot of memory if it is a GDOS bitmap font such as those used in Easy Text.

One way round the problem is to create an A5 master (half the size of this page) and then enlarge it when you do the photocopying so that it becomes A4 (like this page) or even the larger A3.

You will lose resolution and it might look more rough and ready but at least you will be able to see it from several feet away – a 36-point font looks lost on an A4 page.

One of the secrets of good DTP is getting to know what you can do with the program itself and what you need to look elsewhere for. You'll invariably need more than just your DTP program.

FRUSTRATION

Top of the list is a word processor – entering more than a paragraph of text into a DTP package is bound to end in frustration. Next comes a good art or illustration package as you'll often find yourself having to create things like diagrams and logos. Make sure it can save in a format understood by your DTP program.

Picture converters are handy too in case the clip art symbol you want is always in the wrong format. One recent program that all would-be desktop publishers should have is Textstyle from the FaST Club.

An open invitation – script typefaces or those with a hand-crafted look are ideal

It lets you apply special effects to existing fonts and increase them in size, saving the result as a simple graphic that can be imported into a DTP program.

Lack of memory is a common problem in DTP. Even a 1040ST will struggle when lots of GDOS fonts are loaded and the SpeedoGDOS version of Easy Text requires at least 2Mb. It is particularly acute when using image files which can slow down the whole system.

One answer is to make low resolution versions of any complex images you are using, such as photographs, either by processing and converting them using an appropriate utility or displaying them on-screen and "snapshotting" them using a utility like Imagecopy. This way you can still get an idea of what the page will look like without having your memory used up.

If you're using a GDOS-based publishing program like Easy Text or Timeworks, you can do yourself a big favour by adding some extra fonts. Zzsoft supply several disks of add-on fonts for Easy Text while the FaST Club have a big collection of PD fonts as well as some excellent commercial quality fonts.

Derwent is especially nice and the Castleton Roman collection makes a good replacement for the rather uninspiring Atari Dutch.

Go up in the world with personalised stationery. The font is Matlock Roman from the FaST Club collection

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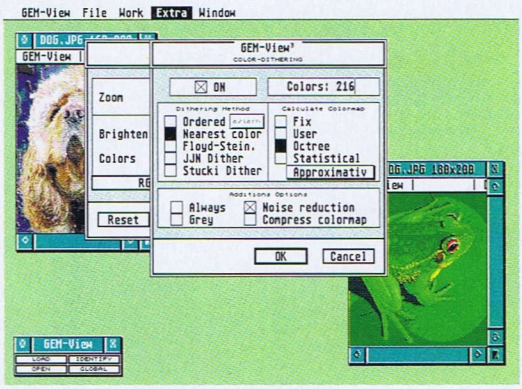
A GEM of a view

Andrew Wright looks at GEM-View, a shareware program that can hold its own with many a commercial offering

There are picture viewers and there are picture viewers, as we're all aware, but every now and again a program comes along that deserves special attention. GEM-View is one them.

Not only does it load, display and convert something like 26 image types – more than any other program I've come across – it has a wealth of image dithering, filtering and processing features too.

Image viewers and converters are extremely useful utilities and can be used for logging clip art collections, looking at images downloaded from online networks or converting and perhaps brightening scanned images for use with DTP or word processing packages.



A choice of dithering methods makes GEM-View an impressive tool

GEM-View was written by a German programmer, Dieter Fiebelkorn, but v3.01 has been fully anglicised with an extensive manual on disk and, better still, it is now supported in the UK by Atari enthusiast Graeme Rutt.

REGISTRATION

It is available in the first instance from good PD libraries but registration, which costs £18, is handled through Graeme at 4 River Terrace, Washbank Road, Eynesbury PE19 2TE. The distributed version of GEM-View is fully functional but there is a delaying opening credit screen and after 30 days it becomes less and less functional as an encouragement to register.

System requirements are basically an Atari computer including an ST, STE, TT or Falcon in any resolution you care to try out from ST low to ST high, Falcon true colour modes and even third-party graphics cards.

Although it will just about load on a 520ST, I'm told, it really needs 1Mb – at least it does if you actually want to load and view pictures! Even then memory will be tight, especially with 256-colour and 24-bit images, so 2Mb should be considered the recommended amount of memory. Images with more colours than can be displayed are dithered for the screen in ways you can choose yourself.

GEM-View has a style all of its own too with a unique, if somewhat odd, interface and a number of difficult dialogues where it isn't immediately obviously how to alter some of the options.

It can be configured with a log window and integrated iconic toolbox that keeps you informed of what it's doing and the time taken, or as a traditional GEM program with commands accessible from the menu bar.

GEM-View has a number of unusual features too. It can be run as a program or as accessory, provided you have the memory, although it is slightly less functional and there's no access to the menu bar.

Perhaps more importantly it can be used from a command line to convert files in batch mode. Suppose you want to convert several disks full of clip art in a foreign format – Windows BMPs, Macpaint or PCX files. Imagine how tedious it would be doing them one by one! With GEM-View it's a case of entering the commands and leaving it to do its job.

A log window lets you see what the program is doing

Images are loaded into separate windows and there's no real limit to the number of open windows you can have, depending on your version of TOS and whether or not you have WINX, the GEM enhancement program, installed or not.

Each window has a menu bar and information line providing mouse co-ordinates within the image, image size and dither method. The pull-down menu offers several functions including halving or doubling the image, inverting, increasing brightness or rotating in multiples of 90 degrees.

DISTORTION

Other options include loading external filters to distort the image, altering the colour scale and balance and applying different dither patterns such as JJN-Dither, Stucki, Halftone, Floyd-Steinberg and ordered dither patterns.

These external modules may prove to be very powerful features, as anyone who knows how can program their own modules. External filters provided with GEM-View include dozens of mono dither patterns that can be applied to colour images for printing in black and white, including several halftone effects.

GEM-View is an essential program for any serious Atari owner and one that's well worth registering. It will import files in IMG, ART, DOO, GIF, ImageLab, PhotoCD, BMP, PCX, SPC/SPU, SUN, TIFF, Degas, IFF, Jpeg, Macpaint, NEO, STAD, Targa, Tiny, Vivid, Enhanced Simplex, portable bitmap, X-Bitmap, and XGA formats and even view First Word/text files and resource files and convert GEM vector files into bitmap format.

Export formats include IMG, GIF, IFF, BMP, Targa and TIFF. Find me another bit of Atari software that will match that!

BOTTOM LINE

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Brilliant viewer and converter for all machines.
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EASE OF USE
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Excellent Good Average ◀ Bad Appalling

VALUE FOR MONEY
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Excellent ◀ Good Average Bad Appalling

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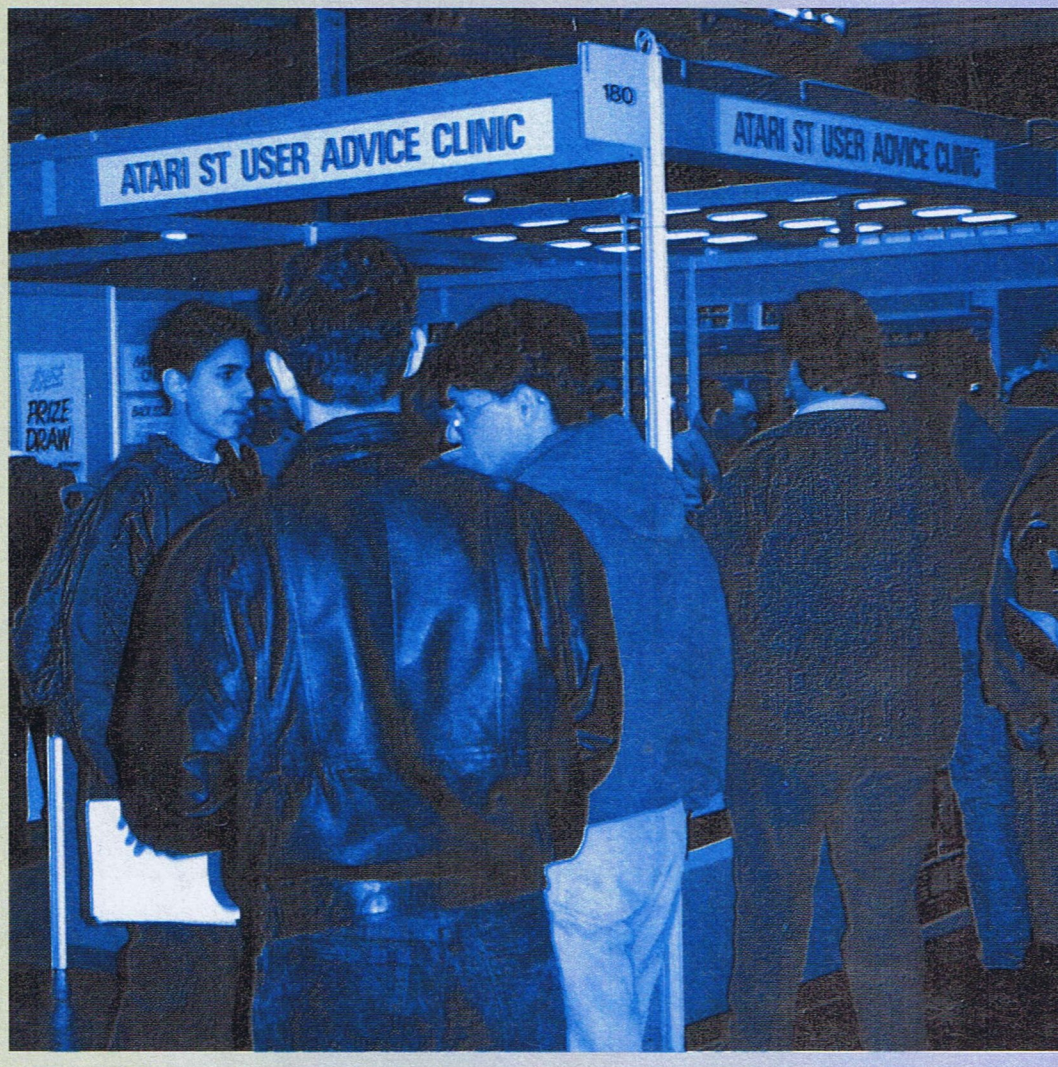

Newcastle show

To be held at the Eldon Leisure Exhibition Centre, Eldon Square Shopping Complex, Newcastle Upon Tyne, Saturday April 16, 10am to 5pm. Tickets cost £5, £3 for entry after 2pm.

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By Metro: Monument stop, Eldon Square Centre
Nearest car park: Newgate Street, NCP Car Park

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Nearest car park: Oswald Street, NCP Car Park

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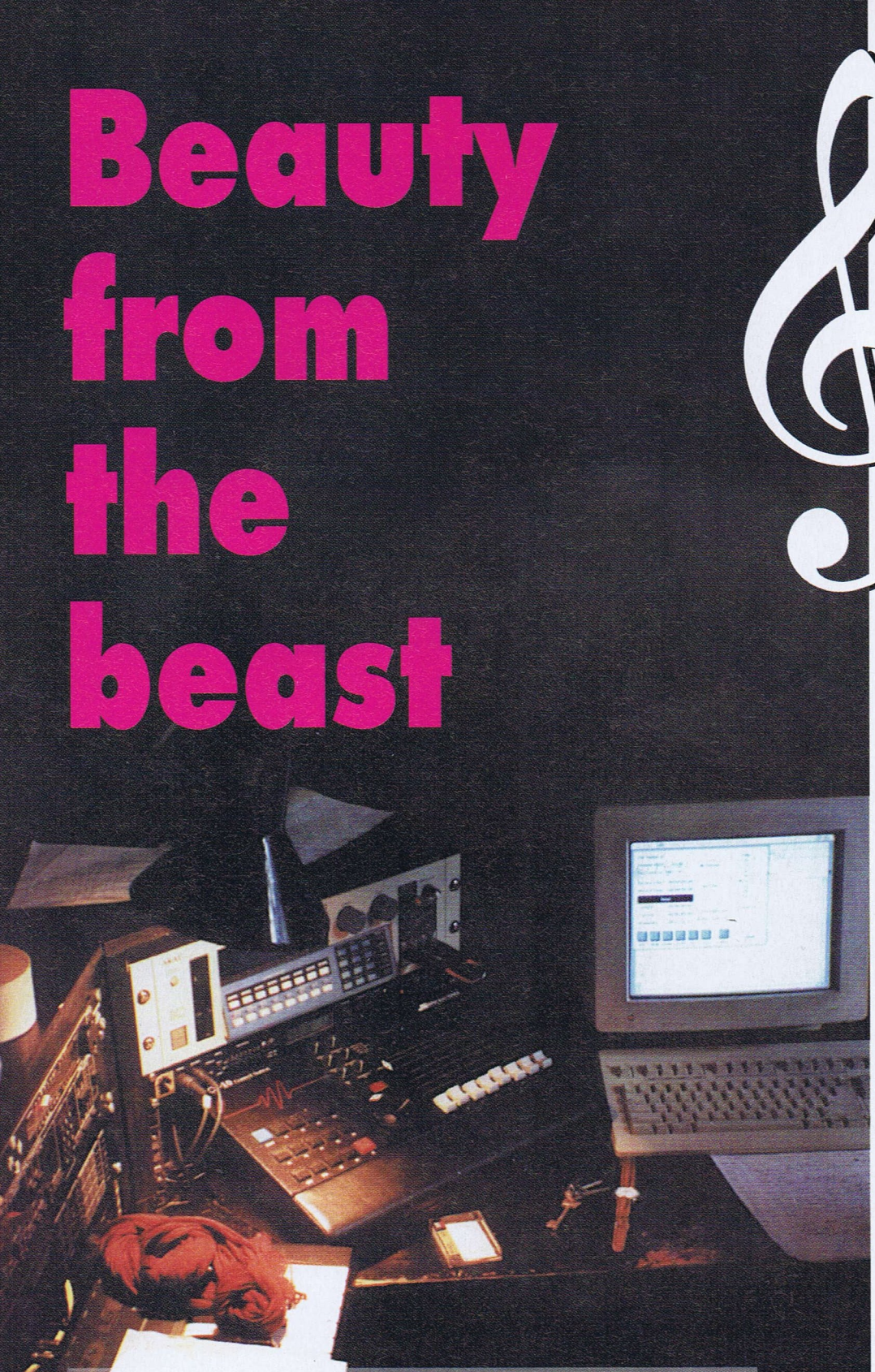
Beauty from the beast



In the first regular report on how Atari computers are being used outside the bedrooms, Günter Minnerup ventures into the dungeons of Birmingham University's electronic studios and a dark concert hall

The word "acousmatic" appears to go back to the Greek philosopher-mathematician Pythagoras, who spoke to his pupils from behind a curtain. The idea was that since they could not see him, they would not be distracted by visual perceptions and be free to concentrate their attentions entirely on what they heard.

Applied to music, it is the sort of experience you get when you listen to the radio or put on some headphones with your eyes closed. Concert-goers, however, usually expect a visual experience as well: the laser beams and smoke clouds of the rock concert, the dramatic gestures of the conductor in front of the symphony orchestra...

PRESENTATATION

By contrast, there is very little to see in acousmatic or – the more general term – electro-acoustic performances. There may or may not be live performers complementing the array of hi-tech ironmongery, but at the heart of the evening's presentation is nothing more exciting than a pre-recorded tape, and the conductor's role is confined to shifting the fadèrs of a mixer console. When the audience applauds at the end of a piece, you half expect the loudspeakers to take the bow.

Old Pythagoras had a point, though. The absence of visual distraction certainly helps intensify the aural experience: you can safely close your eyes and concentrate entirely on what comes through your ears.

This is just as well because the sounds of electro-acoustic music present quite a challenge to your listening sensitivities – not only is it often rather loud, but above all it's a concerted attack on the conventional patterns of what we spontaneously

recognise as music.

Despite the efforts of modern composers such as Schoenberg, Stockhausen and Boulez, and the innovations of atonal and serial music, public tastes in western Europe are still very much stuck in the classical and romantic traditions, and few people are prepared to make the effort to retrain their ears to the dissonances of the 20th Century.

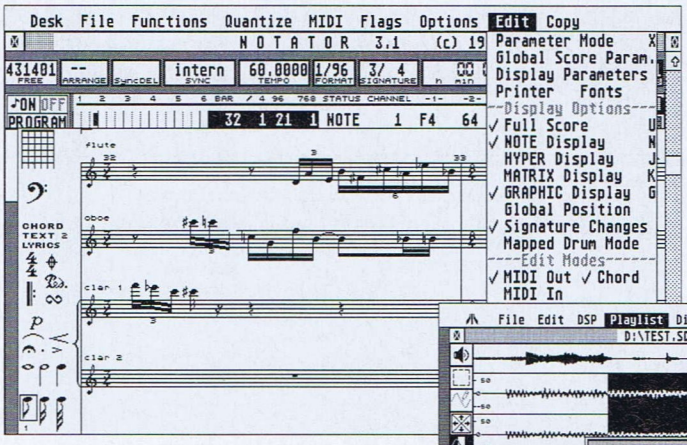
This is not so much a question of the technology involved as of cultural conditioning and listening habits; just as modern atonal music can be, and is, performed using classical instruments, most of contemporary techno-pop and electronic music remains entirely conventional in its patterns.

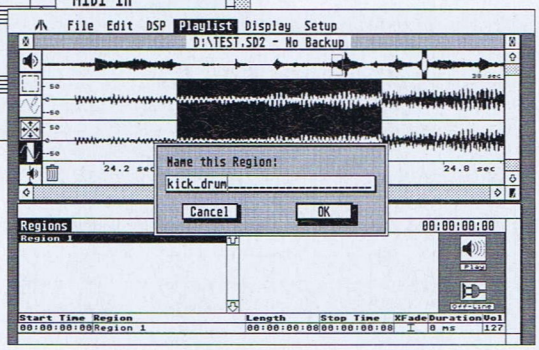
Synthesizers, drum machines, and all the other hi-tech paraphernalia of today's popular music scene are often used to reproduce and replace human instrument-playing in quite traditional patterns rather than to expand musical horizons and innovate our perception of sounds.

Techno-pop and synth rock are certainly not what the BEAST is about. The Birmingham Electro-Acoustic Sound Theatre, to give the animal its full name, resides in the music department of the University of Birmingham and, as you would expect from this academic setting, has a highly experimental and innovatory approach to electronic music.

The roots of this can be traced back to the Musique Concräte of the early 1950s, when tape recorders were first used to experiment with all kinds of natural sounds replayed at different speeds, superimposed on each other and otherwise distorted.

Modern electronic sound generation and editing techniques, however, can take this much further, doing away completely with natural sources or altering them beyond recognition.





The Notator sequencing and score-writing software is one of the main reasons for the continued popularity of the ST in the Birmingham music department. Everybody involved in composition swears by it, and would not touch any of the rival programs available on Macs or PCs

The flexibility of Sound Designer's editing facilities is reminiscent of advanced word processing or desktop-publishing software, especially the intuitive mouse-driven cut-and-paste features

Not surprisingly, computers play a central role in contemporary electro-acoustic music, and yet there is not a single computer, let alone an Atari ST, to be seen with the BEAST on-stage, because all the computer-based work has already been done when the performance begins.

ON TAPE

All the sounds are already on tape – mostly DATs, although a rather old-fashioned looking four-track reel-to-reel also makes an appearance – and all that remains to be done is to regulate the volumes of up to 30 different sound channels: the work of the conductor.

But these taped sounds are the result of long hours of work in the music department studios, and in the studios everything revolved around the computers.

For the time being, Atari STs are still very much in the majority, with seven assorted STEs, Mega STs and STFMs against two Apple Macintoshes, but the tide is slowly turning towards the Apple Mac as Atari have been slow to provide the sort of processing power required in high-end sound editing.

The BEAST did have a TT once, but – although it was much liked by users – that was sold to Switzerland to be replaced by a Mac II due to various incompatibilities and lack of support by software houses and peripherals manufacturers.

Since the main reason for Atari's eminent position in the computer music market is the built-in Midi interface, it is not surprising to find a few STs connected to keyboards and synthesizers.

Most of the people involved with the BEAST are post-graduate students or teachers of composition and make extensive use of Notator for score writing from Midi keyboards. Notator is preferred to its great rival Cubase because the score writing capabilities are more important than the sequencing features in this environment.

But for the BEAST itself, by far the most important application of Atari computers is in sound editing: importing the various source samples and manipulating them in order to achieve the desired effect.

The software used for this is Sound Designer II, a program common to the ST and Mac but now no longer supported on the Atari platform – one of the reasons for the gradual migration towards Apple hardware.

Sound Designer could be best described as a sort of word processor for editing sound files: all the physical characteristics of a sound wave can be manipulated and transferred between sounds by block cut-and-paste.

As anyone who has ever worked with sound samples knows, these can stretch to enormous file sizes: the 500Mb hard disk connected to one of the Mega STs

➤

An evening with the beast

The only way I can attempt to convey the flavour of electro-acoustic, or acousmatic music is to describe the programme of a typical performance I attended at the Midland Arts Centre in Birmingham earlier this year.

The evening opened with *Mortuous Plango, Vivos Voco* by Jonathan Harvey, who has worked with the famous composer Pierre Boulez in Paris.

This piece is built around a four-track recording of the bells of Winchester cathedral and the singing voice of the composer's son Dominic. The listener is given the feeling of being inside the bell while the boy flies like a free spirit around the concert hall space.

Prelude to Autonomy was written by the BEAST's own Adrian Moore, who also plays the live violin part against the taped background, and represents the struggle for the violin to gain an autonomous role against the tape which, once started, cannot stop.

Live delay and reverberation are added as well as distortion to integrate the violin into a more "electro-acoustic" and frenzied world.

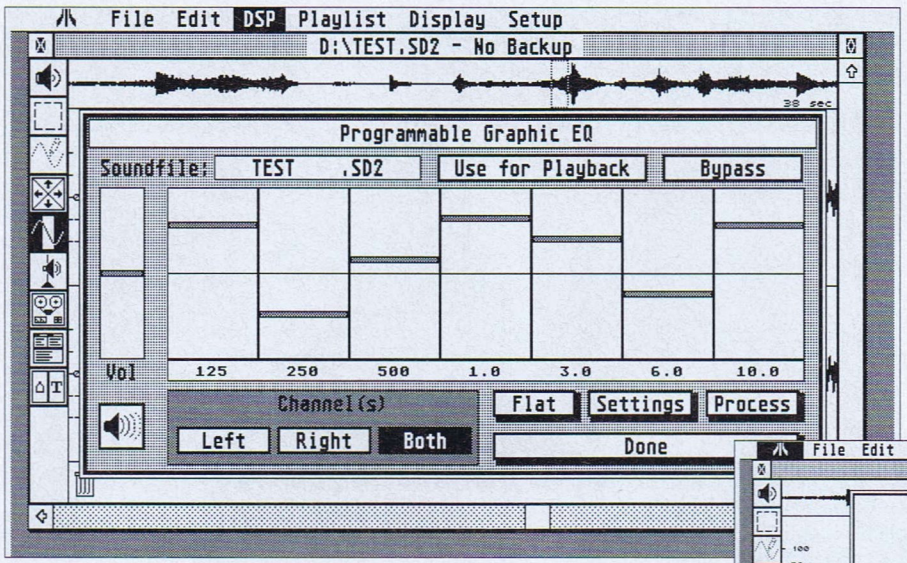
Denis Smalley's *Wind Chimes*, as the name suggests, is based on the sound of a set of ceramic chimes found in a pottery during a visit to New Zealand.

The piece features strong attacking gestures and both real and imaginary physical motion – spinning, rotating, resonances with sound as if scraped or bowed – as well as more spacious, layered sound textures.

Phoenix Games by Mathew Adkins, an MA student in composition and analysis with BEAST director Jonty Harrison, is a highly dramatic piece echoing the conflicts between life and death, acceptance and rejection, and love and hate and, as far as I could tell through all the distortion effects, utilised entirely synthetic rather than processed natural sounds.

By contrast, the award-winning *Espace/Escape* by Francis Dhomont makes very obvious use of concrete sounds such as footsteps and an airport announcer's voice to explore movement in space and the theme of mobility.

Stunning effects are achieved by the 30-channel stereo sound of the BEAST with loudspeakers arranged at different heights and angles all around the audience.



A programmable graphic equaliser in Sound Designer gives full control over the whole range of frequencies for each stereo channel

Once available for both the Mac and the ST, unfortunately only the Mac version of Sound Designer is available these days, under the name Sound Tools. The program's incompatibility with the TT was one of the main reasons for selling Atari's power box to Switzerland and replacing it with a Mac II

➤ in Birmingham holds no more than 30 minutes of sounds. A special formatting utility supplied with Sound Designer enables all of the department's seven STs, whatever their TOS version, to access such huge hard drive partitions, since it would be nonsensical to fragment the storage capacity into normal 16 or even 32Mb GEM partitions.

Backing up such enormous volumes of data is obviously of crucial importance and floppy-disk backup methods are definitely out of the question, so a tape streamer is used, but a tape streamer with a difference.

Thanks to another neat trick up Sound Designer's sleeve, the DAT (Digital Audio Tape) recorders employed in performances also double up as fast and efficient backup devices.

PROCESSING

Another file storage option is provided by the high-speed network link to the university's IBM 3090 mainframe computer, but a more frequent use for this is the utilisation of the IBM's superior processing power for running highly complex sound editing software.

Since the centres of electro-acoustic music are to be found in continental Europe and North America, much direct communication with overseas composers and studios takes place via the Internet. Much is expected from the imminent introduction of the SuperJANET network with its super-fast data transfer speeds.

As a performing ensemble, the Birmingham Electro-Acoustic Sound Theatre has a worldwide reputation, frequently appearing at festivals of modern music both in Britain and abroad: it will feature in this year's Gaudeamus Festival of New Music in Amsterdam, for example, and be touring Britain with the Sonic Art Network's Voice Electric series of concerts. The BEAST is not cheap to hire and presumably quite a nice money-spinner for the university's music department. As an experimental institution, however, it also provides the training ground for a new generation of avant garde composers – not to mention computer programmers – and shares its studios with the more general academic activities of a major higher education institution.

It is a complex beast, therefore, located at the interface between art and technology, performance and research, commerce and education.

I gained the impression that the popularity of Atari computers in this environment with its conflicting demands and pressures is due to more than their built-in Midi interfaces and the availability of music software. Easy to use and so cheap that most students can afford to keep one at home, they will continue to stand their ground against PCs and Macs for some considerable time.

And although the Falcon has not yet landed on the campus of Birmingham University, the obvious interest shown there in the direct-to-disk-recording and other music-related features of Atari's new box give me the distinct impression that the STs could soon be joined by a new generation of machines with the familiar Fuji logo.

● *For more information on the BEAST, call 021-414 5784 and ask for Jonty Harrison, Adrian Moore or Joe Hyde.*

Brothers in rhythm

Adrian Moore

Adrian Moore and Joe Hyde are both Ph.D. students in the Music department of the University of Birmingham, writing electro-acoustic music and working with the BEAST.

Their different approaches to music – Joe is less convinced that tonality is finished in modern music than Adrian, and readier to explore the uses of visual elements in performance – happily co-exist in a broad experimental framework and a day-to-day collaboration that extends far beyond purely musical activities.

Everyone involved in the BEAST must have a sound understanding of programming, computer hardware, soldering techniques and even woodwork to maintain the system, and whenever the BEAST hits the road all are required to muck in with shifting the equipment.

Both are also enthusiastic ST users in their spare time, having 1040STFMs on their desks at home. Joe's ST has been expanded to 4Mb of RAM and tends to run Notator for composition and score-writing, with an HP DeskJet for printed output.

His favoured word processor is Protext, whereas Adrian is still looking for something to replace his ancient version of First Word which he uses to prepare PostScript text files. Much of the time, however, his ST also doubles up as the opponent in a game of chess.

Joe Hyde

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VISA

You know the score

Dr T's Copyist DTP is the clever way to get music out of your ST and onto the printed page. Ian Waugh investigates an innovative package

Dr T produced a plethora of music programs in the early days of the ST including a range of scorewriters under the Copyist banner. They came with varying numbers of features and were called Copyist, Copyist Apprentice and Copyist DTP.

The range has now been re-aligned and the DTP version emerged as the sole survivor at a greatly reduced price. In its heyday it had an RRP of £249 and the new £69 price tag makes it a very attractive proposition, so we thought it worth seeing how it would suit the scorewriter of today.

There is some setting up to do before you start. You must run a configuration program to select the printer type and the work and program directories. If you're running Copyist within Dr T's custom Multi-Program Environment you have to allocate memory to it.

Although a hard disk is not be strictly necessary, it will be of great benefit as the program needs a disk for temporary work files and program modules which are loaded when required. If you have enough memory, a good option is to use a RAM disk which will speed up many operations.

Other side of the interface

If there is one aspect of Copyist which will leave an impression on you it is the user interface. The years have done nothing to ease the effort of using the idiosyncratic keyboard-driven program which is more suited to PC's DOS than ST's GEM.

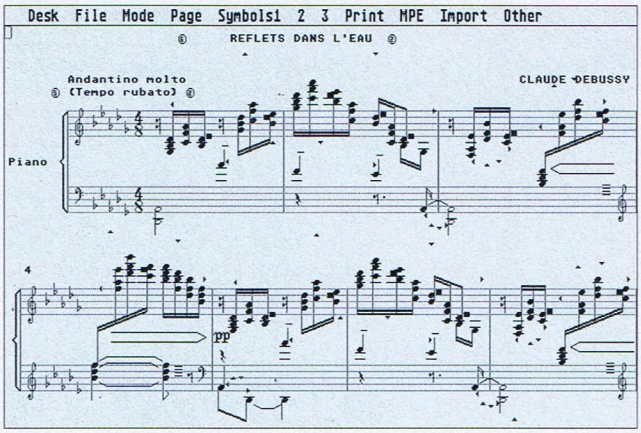
Once you get into it and if you use it regularly, I'm sure you'll be reeling off scores like Simon Rattle but the learning curve will be steep.

The program, as its name says, is indeed a music DTP program. You start with a blank sheet of paper – the screen – and you can place just about anything anywhere on it. First you place some staves, add the clefs, key and time signatures, then the notes followed by music symbols and lyrics if required.

SELECTED

It's fine in theory but a little involved in practice. Many symbols can be selected from menus with the mouse but to enter some you have to press up to three keys. This in itself wouldn't be so bad but if you're in the middle of a three keystroke sequence, the program doesn't tell you which key you've just pressed.

If you keep your wits you won't have many problems, but if you half press or miss press a key or if you can't remember if you're one or two keystrokes into the command (come on, it's easily done) you won't get the required results and you may have to highlight an incorrect entry or symbol and delete it. All of which is annoying and frustrating and not



And here's one I prepared earlier...

conducive to good working practices. The program adheres to its multi-keystroke approach throughout all aspects of operation. For example, to move back a page you press pp (previous page) and to move forward a page you press pn (page next). A keyboard overlay is supplied with most of the major keystrokes on it and this is a good aid. There are eight pages of help available on-line which is useful, too.

But let's get back to the score. You can enter notes at or around a cursor position in two ways. You can select note heads from a menu and then beam them if necessary which is rather slow.

POSITIONS

Alternately, you can use the keys on the Qwerty keyboard which place notes at various positions above and below the cursor. This is a little more complex as you have to remember how far above and below the cursor each key places its note.

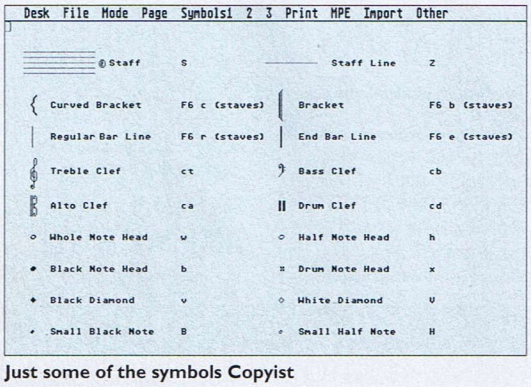
As I've already said (but it bears repeating) Copyist lets you place anything anywhere. While groups of symbols can be cut, copied and moved, once bars have been laid down you can't insert another bar and push the following bars down the score so you have to be careful when planning the layout.

Copyist can load and save Standard Midi files. The transcription process involves two stages – the creation of a temporary Stream file and then the conversion of this into a Copyist notation file.

Before making the Stream file, the program asks you questions about the file such as the time signature and the clefs you want the tracks converted to. Before converting the stream file into notation it asks lots more questions about whether or not to include rests, page numbers, stems, bar lines and so on. And then it does its stuff. It ain't fast. A 12-page score can take several minutes to produce. The program can handle scores up to 100 pages long so if you're in an orchestral frame of mind make sure the coffee's on and the pot's big. And get a hold of *War And Peace*. Converting a score to a Midi file can take a while, too.

The program doesn't attempt to make any decisions for itself and you really need to prepare the score well before transcribing it otherwise you may have an awful lot of editing to do in the program.

Copyist is replete with features. It supports percussion staves and allows you to extract individual parts from a score. Music symbols include ties, octave and ending marks, arpeggios, trills, crescendos and slurs. You can use normal, bold, italic, compressed and double-width typefaces. The package includes a font editor which lets you design your own symbols. One of the demo files contains examples of guitar chord symbols.



Just some of the symbols Copyist is capable of producing

AUTOMATIC

You can record macros which will automate operations requiring lots of keystrokes. These might be useful to simplify some of the more obscure or complex functions.

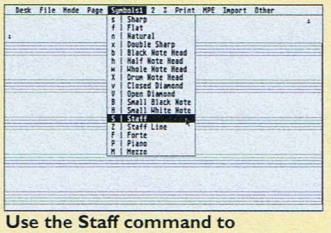
Macros can be made to wait for input from the user and they can call other macros – heavy stuff! You could use them to create composite symbols, an oft-repeated phrase and so on.

Copyist can save files in TIFF or EPS (Encapsulated PostScript) formats for loading into DTP programs proper. This might appeal to something thinking about producing their own music book, schools perhaps, but educational users would do well to take the complexity of the program into consideration, too.

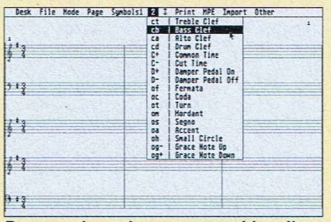
Copyist supports a wide range of printers including Epson-compatible dot matrixes, HP LaserJets, the IBM Proprinter, Atari's laser printer and PostScript printers. The PostScript option lets you specify the number of

➤

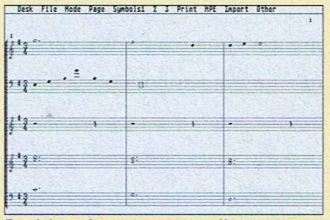
Lines and circles



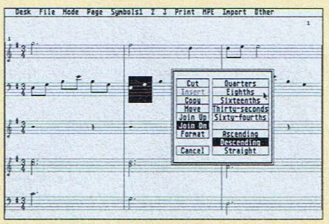
Use the Staff command to place staves on the page



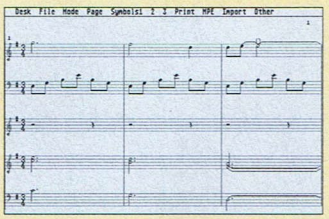
Braces, time signatures and bar lines have to be entered using keyboard commands. The clefs are selected from a menu. Accidentals in a key signature have to be entered individually



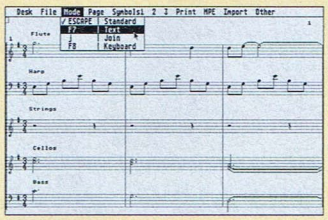
Position the cursor on a line or space and insert note heads from the menu or using keyboard commands. Rests are inserted in a similar way



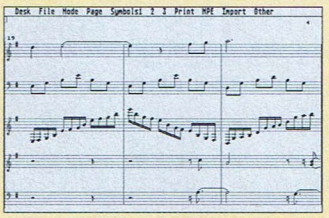
Highlight by clicking and dragging and select the beam attributes



Add ties using keyboard commands



Use Text mode to enter the instrument names and music instructions



Finished score with all the parts added

copies you want to print and scale the output.

There is absolutely no doubt at all that the results can be extremely impressive indeed. You only need to look at some of the demo scores so see this. The total flexibility of being able to place anything anywhere may be welcomed by many.

However, I suspect the majority of potential scorewriter users would prefer the computer to make most of the decisions about where to place symbols, notes, bar lines and so on, and to adjust the spacing automatically. There are strict music typesetting rules governing these things and the program should be able to implement them.

SENSIBLE

Do users really want to be asked so many questions when they import a Midi file or would they prefer the program to make sensible decisions about clefs and quantisation based on the pitch range and contents of the file? After all, that's what computers are supposed to be good for.

Copyist DTP was last updated in 1991 and although Dr T is developing new programs, it looks as though this one is a bit of a sell-off. But that's fine. You get a good deal on the software as long as you realise than updates are extremely unlikely to appear.

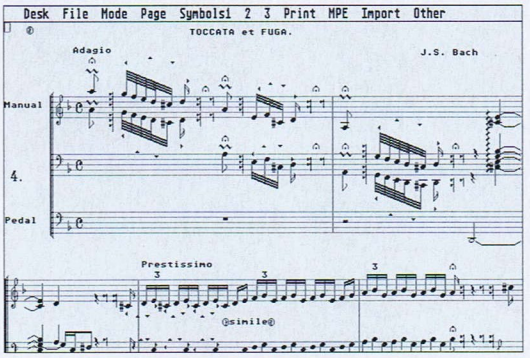
However, the lack of updates has meant that the program is not conversant with the latest types of Standard Midi files and it refused to convert some files which otherwise loaded perfectly happily into several ST sequencers.

And I have to report that the program locked up and bombed out a few times, too.

The manual is fair but could do with more illustrations and better tutorials. You'll need to read it carefully. One part of the tutorial which doesn't particularly inspire confidence is a printed example in which the notes are wrongly positioned.

The time signature is 4/4 and eight quavers are shown occupying the first half of a bar, not spread evenly across it as they should be. They are all beamed together, too, which is an unlikely occurrence although not impossible. The next two bars contain whole notes which should be positioned at the left of the bars but instead they are in the middle. OK, it's just an example, but if the programmer's don't know how music is supposed to look...

Existing users of Dr T programs such as KCS who are used to his ways will probably enjoy the option of a low-cost, multi-featured scoring program. For the rest, however, weigh up the features against the interface and ask how much your time is worth.



An incredibly impressive page from Bach's Toccata and Fugue in D Minor

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

Write Now

Searchin' for games

I am an avid Atari fan, and am writing to tell you of difficulties I had when buying a game called Captive.

I tried 23 different companies in my local area and those listed in your magazine. Eventually, I contacted Mindscape who gave me numbers to ring because they don't sell directly to the public. I was still unable to find a company who supplied the game. Mindscape then contacted Time Direct of Burnley, who I got in touch with to secure my game – success.

I saw an advertisement in another magazine for Dungeon Master 2 and Noddy's Big Adventure – I've bought these games. The advertisement said no releases on the ST. I have since written to the companies to ask if they are being produced for the ST and I've received replies saying there are no such plans.

The point of this letter is to mobilise the large Atari family of fans to petition the game manufacturers to release the games we want on our favourite computer, and the best machine there is.

I find it very sad that ST users are always blamed when there is mention of piracy or the like. So I suggest every user of music, games and education software should write at least one letter complaining to a game manufacturer about the lack of support.

Perhaps each month you could highlight one or two in your magazine which we could blitz with letters. On the other hand, I give praise to people who do support us like Silmarils, MicroProse, Mindscape and Daze to name a few.

And let's not forget the brilliant work of the public domain and shareware who should also be supported. So please, please let's support our machine.

David Wing, Nottingham

Anything is worth trying, but sadly it's very unlikely that even sackfuls of letters will make the slightest difference to decisions taken by games makers to stop ST support.

At the end of the day actions speak louder than words, and most developers pulled out of the market because the titles released didn't give the financial return necessary.

Since then sales of the Atari computer have fallen back further, and even the demand there is can't be met because the machine has been out of production for the last six months or so.

With a smaller active user base, any company is going to need much more than a few letters to convince them to put money behind a format that hasn't worked for them in the past.

Like our readers we don't want to see the death of the ST and will help support it in any way possible, but the problems must be looked at realistically.

The best way for enthusiasts and games players to ensure the computer continues to get software support is to buy the high quality titles that do show.

Jaguar promise

Just when we thought Atari had got it right with Jaguar, we read in your last issue that it won't now be available here for several months because they misjudged American demand.

I have been reading about the console, and encouraging remarks made by software houses made me believe that Atari could again become a major force in the video games market.

I'm now having second thoughts. The few thousand Jaguars promised for selected shops before Christmas didn't arrive and the March launch has now been put back until mid-summer.

Are we going to see Jaguar before next Christmas, or will this be another lost opportunity for Atari?

P Turner, Edinburgh

Until something actually happens all we can do is speculate, but I would be very surprised if we had to wait beyond Christmas for Jaguar.

Atari's reputation would be badly damaged if they failed to get the machines into Britain following the promise and wide publicity the console has received.

You could argue that reputation has not worried Atari too much in the past, but with Jaguar most of their marketing moves so far have been spot on. Let's give 'em the benefit of the doubt.

The right format

£25 Prize Letter

Atari now acknowledge the fact that 90 per cent of the home computer market is held by the IBM-compatible machines.

This acknowledgement is good because it allows Atari to make the right decisions. Sadly, they didn't.

Yes, the Jaguar is great, but for those of us who like to do more than just play games, we will need a real computer like the Falcon.

However, Atari are quitting on us potential Falcon owners using the excuse that IBM-compatibles are too big. So what should we do, buy a PC? Why do people buy PCs? First of all because it's what everyone else has. This means that documents can be exchanged with friends, contacts, companies and so on.

The solution to this problem is so simple – it's hard to see that there ever was a problem. If the software producers would make their documents compatible with PC programs, then the Falcon would no longer have any disadvantages compared to the PCs.

Word processors could save WP files, DTP programs could save PageMaker documents, spreadsheet files could be in Lotus format and so on. With the Falcon's extra technical features, it could be the obvious choice for potential computer buyers. So the Falcon could be a killer. Right now it isn't.

Thomas Hansen, Norway

Jaguar promises to be a huge success for Atari, and that surely means they have made the right business decision, whatever the short-term cost to people wanting to buy their computers.

Medium to long-term, the revenue the console brings in should enable the manufacturer to develop Jaguar technology into a superb computer that leaves the competition way behind.

Theoretically there is no reason why the ST shouldn't be able to load text-based files from the PC and other computers – just save the original document in Ascii format.

But files containing graphics – such as those from desktop publishing software – are likely to have difficulties, and to make software compatible could be costly.

A document created on a PC could use up to 256 colours on screen, whereas the ST can handle a maximum of 16.

In order to display the picture, the software would need to load the format and then translate the image into something the ST can work with. With its huge colour palette and ability to show the 256 colours from PC and Apple Macintosh, the Falcon would not have these problems.

Waiting to hear form 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

PUBLIC SECTOR

Adam Phillips roots around in the public domain and digs up some right tasty little numbers

For software packages that don't need a packet spent on them, the public domain is still the best value for money that you can find and this month's selection is no different. From puzzlers to filing, all topics covered.

GIP

Produced by: Stephen Found
Available from: The Floppy Shop

A handy little program where the user is able to display several different types of picture formats including TIFF, CompuServe GIF, PC Paintbrush, Degas, Degas Elite and Mono IMG.

Once loaded in, it's possible to manipulate the image in black and white with the various special effects on offer. Brightness, threshold, negate, contrast and a range of filters can be applied to the original picture to produce the desired results. Once done, grab a printer and see the end results on paper. The only downside is the length of time it takes for most of the effects to be rendered.

Expect enough time to make a cup of tea and watch an episode of *Neighbours* while waiting for some of the more lengthy alterations. Despite this, GIP is well worth a look at if art is your game.

Crissle, Landmine & Thurg

Programmed by: Various
Available from: Goodman International Disk GD2158

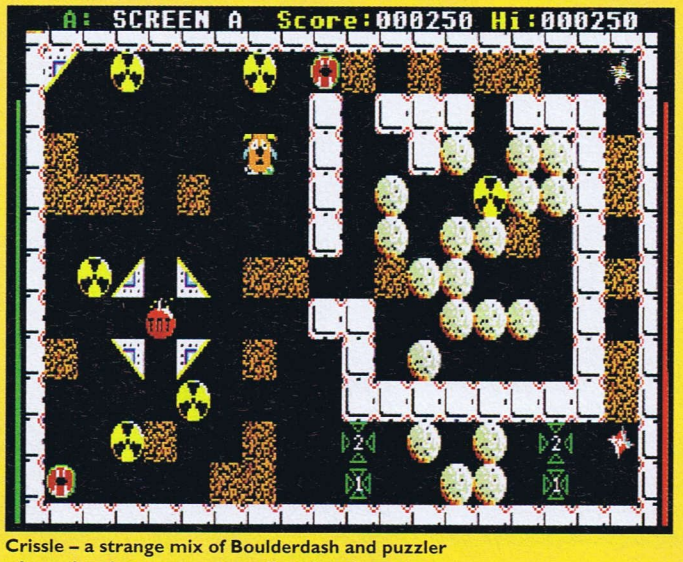
As compilations go, this is of a pretty high standard. Packages of three usually have one game that redeems forking out for the other decidedly average two.

Only one of the titles included here is below the quality line so reasonable value is guaranteed. First up is Crissle, an odd but refreshingly original game with hints of Boulderdash and other classic puzzlers thrown in for good measure.

Apparently, for all dossers out there, the ideal job with high pay and little work is in Location Crisslefridge somewhere on the edge of the universe.

Nuclear waste disposal is the game but fortunately, there isn't any to actually clear up. Any prospective applicants can look forward to putting up their feet on the nearest meteor and watching stars implode while drinking copious amounts of lager.

This may well have been true for some time but, as your blank CV lands on the local council's desk, all hell breaks loose. The warring and unenviromentally friendly Cribblewerts have decided to nominate this particular wildlife sanctuary and use it as a dumping ground for all things toxic.



Crissle – a strange mix of Boulderdash and puzzler where the player must clear all nuclear hazards

On arriving at your rented accommodation under the name of Denby to avoid the taxman, it's your task to clear up the mess and render the lands clean again.

Presented in single screens of increasingly difficult layouts, the player must guide their cleaner through the levels pushing boulders, sweeping up dirty earth and depositing discarded cans of radiation into the jaws of carnivorous plants.

While the graphics may not grab you by the danglies and throw you round the room, Crissle is highly playable with mind-aching puzzles and an ever-decreasing time limit. Coupled with a screen editor as well, this third of the compilation is addictive fare indeed.

Imagine two stools with Crissle on one and Thurg on the other. Enter Landmine as it plummets from the skies and disappears between the two, landing with a crunch in third place for lack of quality and playability.

Landmine, the concept, seems to be installed in the Puzzles folder on every PC and Mac I've ever come across. Whoever created this little "beauty" must surely be kicking themselves for not copyrighting it and making a rather large amount of cash.

For the uninitiated, the premise is to explore the 64-squared board without revealing a mine that subsequently ends the game. By uncovering the squares individually, numbers usually appear on each giving a clue to the proximity of the nearest explosive device.

While the concept is simple and reasonably addictive if you have nothing else to do with your life, the presentation is horrendously basic and crude – even the cursor is merely the busy bee icon. The weakest on the disk without a doubt.

Finally, Thurg rears its head and turns out to be a surprisingly enjoyable platform romp in the style of Bubble Bobble. All the player has to do is guide their character round each screen grabbing the ruby rings and as many power-ups as possible. These range from pogo sticks to increase your jumping height and trainers for boosting speed.

Collect all the objects and power-ups in this Bubble Bobble spin-off, Thurg

While the graphics are a little rough round the edges and the controls flimsy, this is entertaining enough especially in two-player mode.

The JC Collection

Programmed by: John Charles
Available from: Goodman International Disk No GD2159

One of the best things about the PD market is the pile of excellent utilities that regularly builds at the *Atari ST User* offices. Packed with useful features and considerable thought, these public domain workhorses really show off the virtues of free software.

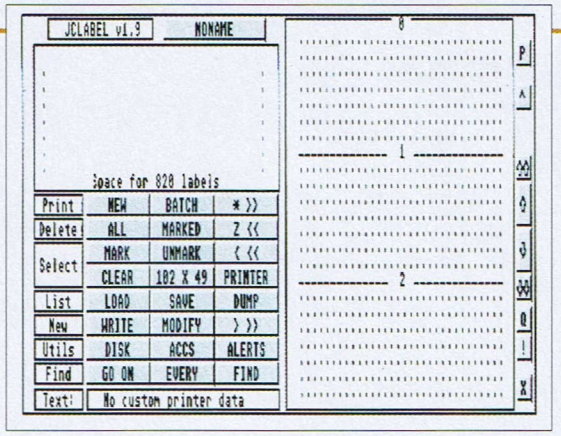
The JC Collection is another one of those disks. Containing four programs for your delight, these are small key, low profile numbers that when needed are probably as close to being the best in the field – the only downside being that all programs can only be used in hi-res bar one.

Like Agenda reviewed elsewhere in these pages, JC Calendar features a myriad of options down to the selecting of the border design for the printed end result if you want your schedule wall-mounted.

As with all the utilities on the disk, this is presented in an attractive and professional manner with instructions provided.

JC CFN View is simply a custom font viewer where differing PD fonts can be loaded in and given a closer inspection. There is also a facility to fill them in and save them for later use.

JC Label allows the user to produce – you have guessed correctly – labels that you can stick on and all over the place to your heart's content. Up to seven rows and 32 characters can be fed in and with the program's features, the label size can be changed accordingly.



JC Label is one of the many useful utilities featured on the JC Collection

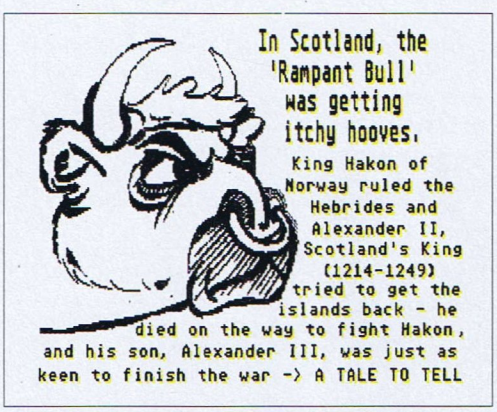
Finally, the best part of the compilation, JC View, brings basic desktop publishing powers to your fingertips where newsletters, fliers and other goodies can be constructed and printed. Described as a clip art viewer and clip manipulation program, this is well worth the asking price alone.

Overall, the JC Collection is an effective, professional-looking package that is both simple to use and, in many aspects, comprehensive. Recommended.

From Picts To Parliament Part III

Produced by: Evelyn Mills
Available from: Goodman International Disk No GD2161

Another whirlwind guide through the echelons of history courtesy of Evelyn Mills. This time, we're allowed a closer view of the 12th Century onwards with this third instalment of a series that looks at society's progression through the ages to "civilised" parliamentary rule. Told over nearly 30 screens via a slide show, text and illustrations show the viewer the various warring partners and royal strifes as they were all those years ago. The presentation is very plain but the information useful.



Learn the formation of parliamentary rule and impress your neighbours

The program's biggest failing is the actual slide show itself – it positively whips through each sheet so that reading a full one is nigh-on impossible. If you have an art package, this may well not be a problem – more a hassle, as you have to select one image and then select the next and so on until you've seen the entire collection.

This could all be solved through the simple use of holding the picture on-screen until you press the spacebar to move onto the next.

From Picts To Parliament is a lukewarm attempt at education and warrants a look if you're a historian by nature.

Fate Master

Programmed by:
Available from: New Age PDL
Disk No. GAME 177

Set in another galaxy, your leaders in this adventure learn that a shaky alliance with a warring party has broken down.

The Gulluks (that's you) have been horrifically massacred by the Swokis. Reports filter back to headquarters, the final telling people to keep away and start praying that the mayhem doesn't spread elsewhere in the galaxy.

Going against this warning, the president decides that you must go to the planet and find out exactly what is going on. Taking on the role of Commander Tsin-Fei, you are teleported down to the surface and begin your search for the truth.

On your travels, you'll uncover betrayal, combat and a healthy amount of humour. Presented in a slightly tilted overhead view, you move your strange sprite round the locations, entering buildings, taking objects and using them in the right place.

The best part of the game is the simplicity of the proceedings – once at a location, an object will automatically be used without having to faff around with any icons or menus. The whole process runs smoothly and while the graphics look basic, it doesn't detract from the all important gameplay.

Combat is a bit of a let-down, though, with its text-based system where you take a go and then the opponent takes theirs, gradually chipping away at the other's hit points. This process becomes a little tedious after the fifth time and slows the game down unnecessarily.

Despite this, Fate Master's interesting plot and addictive gameplay stands out a mile from the competition and is recommended.

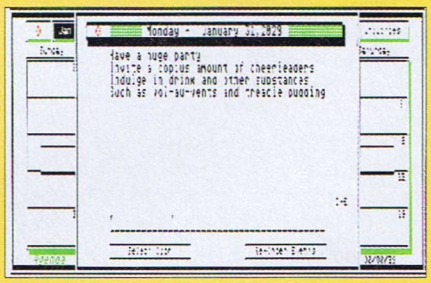
Agenda & Big Bux

Programmed by: Various
Available from: Goodman International
Disk No GD2161

Another selection of utilities, this time from the shores of the Netherlands, that show quite a diversity and range. To kick off the proceedings, there's the HiScore Terminal utility where the user is able to conveniently organise and manage gaming high scores.

Along with the actual high score, the game name and other details, you can also keep track on dates, event names and systems. These may be individually deleted, added to and edited with merge and find options.

Darkroom, the most mysterious of the utilities on the disk, is a program whose basic function is to supply information to the X10



Agenda & Big Bux

controller so that the X10 may control electrical devices in your home.

As many as 256 addresses may be controlled using up to 128 steps. As many devices as desired may use the same addresses as long as the action in question is the same. Does that make any sense? I thought not...

For all people out there who want a little extra help with their loans and investments, Big Bux, all the way from Hollywood USA, may well come in handy.

Covering areas from nominal interest fees and annuity to loan details and depreciation rates, Big Bux actually lives up to its larger than life name.

Finally, Agenda, similar to the JC Calendar, is a time organiser for years to come. While not as comprehensive as the latter, it can be operated in med-res.

Endurance

Programmed by: Ozzy Omara
Available from: Goodman International
Disk No GD2163

When the 3D Construction Kit was released a few years back, the end results of many hours sweating over the keyboard constructing the ultimate virtual realities had no outlet other than appearing widely in the PD libraries.

While the idea of creating your own worlds may sound ideal, the final product usually suffers from over-complicated design making the screen update unbearably slow and the controls equally unresponsive.

Endurance unfortunately suffers from some of the same bugbears its forefathers did, and though the basic idea is sound, it leaves a frustrated individual playing this for longer than half an hour.

The year is 2500AD and the galactic starways have decided to waste a few planets to pave way for the next generation in spatial transport.

Selecting Station 3B as the ideal place to go into atomic overload for mass planet removal, plans are made to detonate it. Going against the order of your superior, Commander IFF, you decide to change those plans... permanently.

Starting off in the living quarters, all the usual 3D Construction Kit control options are available – looking up and down, crouching among others but presented in a visually good way. Games of this genre are all about exploring every nook and cranny in every location. Moving, pushing and peering down the back of objects usually leads to a discovery.

A 3D Construction Kit creation with awkward controls and slow, oh, so slow update...

While the title is relatively enjoyable at first, the jerky update, irresponsive controls and the annoying object select soon begin to wear on the nerves, giving way to frustration.

On actually managing to get out of the room after fiddling with the key card for about ten minutes, I found myself in a corridor only to be blasted to death in the next proceeding location. Another problem is the screen messages that linger on-screen for far too long, freezing up the flow of the gameplay.

Despite all these gripes, Endurance is reasonably atmospheric due to the harsh time limit of mission completion caused by the space station's impending detonation – racing to complete it can be quite exciting.

If you're crying out for a 3D title then this could go some way to satisfy the craving but I'd recommend creating your own with the tool that made Endurance.

Attention all PD libraries

If you wish to feature in *Atari 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.

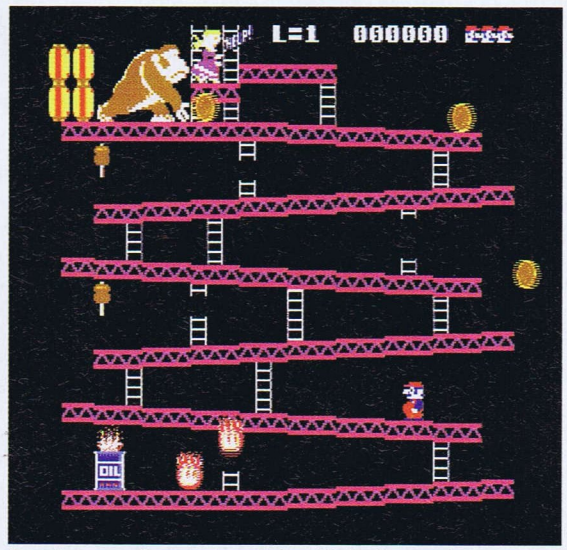
Please include a list of the contents of each disk detailing the program name/s and what they are. This ensures quick assessment and inclusion into the magazine. If you are a shareware author, send in your latest creation along with a list of libraries who will be distributing your program/s thereby achieving maximum publicity.

David Munsie Game Collection

Available from: Goodman International
Disk No GD2170

To think that this nearly got lost behind the mass of wires seething at the back of the desk. This humble little disk contains nine compressed classics from the past.

If you're a true arcade games player, you'll know that the most important ingredient for any piece of entertainment software is... oh, dear, I nearly forgot. I was just playing Microcosm on the Amiga CD32 and was nearly fooled into thinking that gameplay didn't matter at all.



Bugs is an excellent update of the old classic, Centipede

The games on offer are Bugs, a Centipede clone with large well developed knobs on featuring end-of-level bosses and Minter-ish style gameplay; Kid GP, a reasonable version of Bubble Bobble; and Evader, a scrolling Galaxians/Phoenix with power-ups.

There's Frogger (I'll give you three guesses); Kid Kong (I'll give you two) and ST Invaders (I'll give you one!).

Another conversion of a golden oldie, the Dave Munsie Collection offers excellent value for money

The remaining trio consists of Dark Pearl, a Trailblaze-style effort where, for the unfamiliar, you have to guide a bouncing ball over platforms that hang in deep space; Bubble, a Tetris/Dr Mario spin-off; and Kaboom, previously seen on the Commodore 64 where the player has to deflect bombs (the weakest of the bunch).

Each has been faithfully reproduced and in most cases, added to, making this an absolute must for addictive, long lasting, no frills, no CD soundtrack nor 256-colours, fun gameplay. Highly, neigh, superiorly recommended.

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All disks below are £1.50 unless otherwise stated.

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D.363 GROTESQUE: Psychedelic techno music demo (1Mb, STE).
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AUTHORS

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Please state if you have a Falcon

RECOGNISED WORLDWIDE FOR SERVICE, SPEED AND EFFICIENCY - *SIMPLY THE BEST*

Pix of the

Andrew Wright examines PixArt, a new art package with some novel features

Everyone loves a good art package and most people need one handy, be it for tidying up clip art for a DTP document, designing games screens or simply having fun with colour.

However, it's a crowded market with a vast range of titles to suit every taste and pocket, from PD and shareware such as Crackart, through budget commercial programs like TruePaint and on to the top-end packages like Chagall.

Any new entrant has to offer something special or get swallowed up by the competition. German software company Omikron have released an innovative program called PixArt which is now being distributed in the UK by the FaST Club. It fits squarely into the budget category at £34.95 but how does it measure up against the opposition?

PixArt is supplied on two disks, one for the program and a selection of Signum bitmap fonts and the other for some sample images and clip art.

The 60-page A5 manual in a solid ring binder has been translated into English and while it concentrates purely on the program's features rather than including tutorials, there's very little missing.

DIFFERENCES

Omikron claim PixArt will run on any Atari with 1Mb or more of RAM and any version of TOS but unfortunately no account was taken of the differences between the German and UK ROMs.

As a result it has problems with some pre-STE machines which appear to hang on loading pictures in low and medium resolutions. There don't seem to be too many problems on the Falcon, though, and it runs in all standard resolutions, from mono to true colour.

Some problems were experienced with fill patterns when using screen expanders which makes me suspect that its claim to work with all graphics cards is a little optimistic.

The combination of GEMRAM and WINX, the popular TOS enhancement utilities, caused problems with the mouse too and made it very unresponsive.

Not a good start. However, loading the program soon dispels the blues – if you happen to have a computer capable of running it of course. The interface is very reminiscent of Calamus with an icon bar along the top of the screen and a changing toolbox to the left.

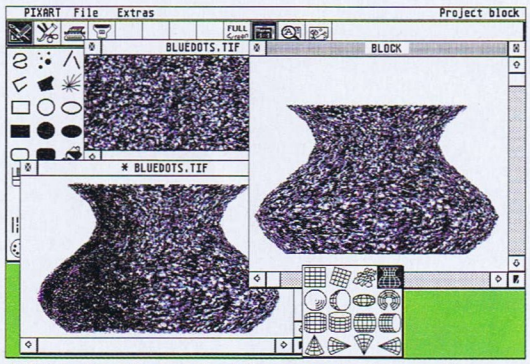
The left-hand icons on the top bar are drawing tools, block operations, text functions and scanning/digitising with four on the right-hand side for full screen mode, normal 1:1 view, zoom in and zoom out.

In drawing mode there are 24 icons in the left-hand toolbox; this drops to 12 in block mode and just three in text mode but there is also a floating toolbox that can be called up and closed by clicking the right mouse button whatever mode you happen to be in. This floating toolbox holds all 39 icons which can be moved into any position.

This level of customisation is unique in an art package and it makes it easy to use and learn. If that weren't enough each operation has a customisable keyboard short-cuts which are set from a dialogue box under Extras.

These program dialogues (though not the system ones such as the file selector) can be moved anywhere on the screen simply by pressing and holding the left mouse button.

Each image is displayed in its own window and the number of windows is limited only by available memory. Pictures can be a maximum of 16,000 x 16,000 pixels – if you happen to have the memory – or as small as 112 x 80 pixels.



A flat textural image like this one can be "wrapped" around a grid to create a pseudo-3D object

RESOLUTION

Unlike TruePaint, which will dither an image to match the screen resolution, PixArt will only load an image if the number of colours in it is less than or equal to the number available in that particular resolution. Thus in 256-colour mode you can't load true colour images and the program produces a warning to this effect.

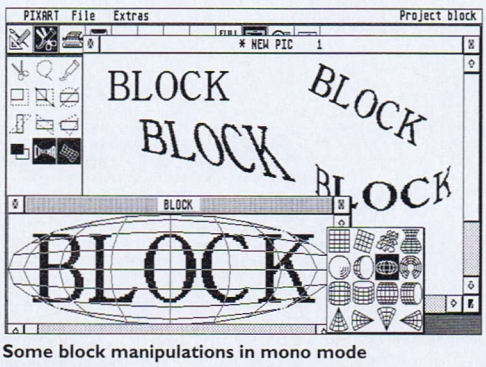
This means that if you want to manipulate some images you'll have to have the means of reducing the colour palette or dithering to black and white – programs like GEM-View should do the trick. Otherwise you'll fail miserably, and it is even harder on ST owners as most images these days have at least 256 colours.

PixArt will automatically recognise any image it is asked to load, formats including GEM image (IMG/XIMG), Degas (compressed and uncompressed up to PI6), Stad (PAC), black-and-white screen (PIC), Neochrome (NEO), Draw-Big (BIG), TMS Enhanced Simplex (ESM), TIFF (TIF), Interchange File Format (IFF), PC Paintbrush (PCX) and its own PIX format.

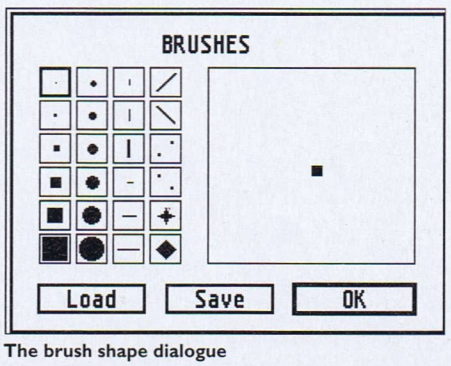
Images can be saved as IMG, IFF,TIF, PCX, ESM, PIC, Degas or PIX, and the program also offers good printer support, being able to handle output to Epson and IBM-compatible 9 and 24-pin dot matrix printers, HP3 compatible lasers and inkjets, the Atari SLM laser and the colour Deskjets 500C and 550C.

Those with colour dot matrix printers can opt for a bundle with Imagecopy 2, providing comprehensive control over output.

PixArt offers all the usual painting and drawing tools. There is a freehand tool with 24 different brush shapes up to 16 pixels wide that can be edited if necessary. Shapes and lines are supported with filled and unfilled circles, ovals, rectangles,



Some block manipulations in mono mode



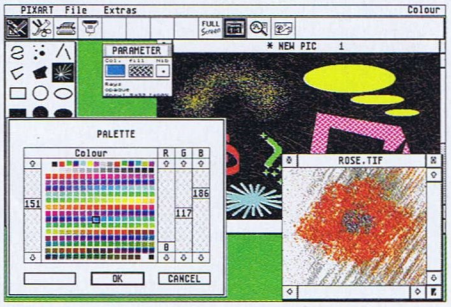
The brush shape dialogue

Two for the price of one!

Version 1.2 of PixArt was planned but never finished and the next release, currently in beta test stage, will be version 2. It will convert any picture to any other colour depth using a choice of several different methods, making it possible, for example, to load true colour images directly on an STE with 16 colours.

It will also print in any size up to A0 and position an image anywhere on the paper, has magnification by user specified percentage and will enlarge images once loaded. The interface gets 3D dialogues and there will also be a GDPS driver for PhotoCD images.

Even better is the news that anyone buying version one will get the upgrade free of charge.



All the usual tools. Note that the blank button lets you pick a colour from an existing image

squares, and polyhedra plus K-lines, rays and dots. Ten line patterns are available and there are 24 different fills that can also be edited though, disappointingly, no multicoloured brushes or fills are possible.

The airbrush is configurable from 1 to 32 pixels wide with an intensity set on a sliding scale from 1 to 100. It can spray solid colour or use the fill patterns.

Unfortunately the algorithm used makes it less useful for shading as it tends to over-ink the centre in a star-shaped pattern rather than being random. Paint mode is either transparent or opaque without the normally included XOR and AND modes.

Images can be magnified by 2, 4, 8 or 16 times or reduced by 2, 4 or 8 times but whatever the magnification, all the paint tools are still made available. In other words it is possible to work in fine detail on an enlarged version while looking at the whole image in a reduced one.

PixArt's strengths, however, are its block and grid manipulation features, and text handling. Fonts in any Signum format can be loaded and used and while this places limitations on the sizes available (screen fonts are small, printer fonts large) there are facilities for applying up to 32 different vertical colour gradations to the text, making some novel effects possible. There's a text editor too and Ascii files can be imported and used, offering powerful DTP-like possibilities.

For really spectacular effects, though, it's PixArt's block and grid handling that wins the prize. Blocks, either regular or irregular, are cut from an image and placed straight in a second window.

From here you can apply one of several effects such as scaling, resizing in any direction, rotating, slanting horizontally or vertically, or even distortion which allows you to rescale a block in any direction simply by dragging one of the four corners.

Even more impressive are the grid functions. To date this type of operation has only been possible in top-end programs like Outline Art or DA's Vector, but here it is in a paint package! Sixteen predefined grids are available and any image can be projected onto any of the grids. It is even possible to edit the grid to get precisely the shape you want.

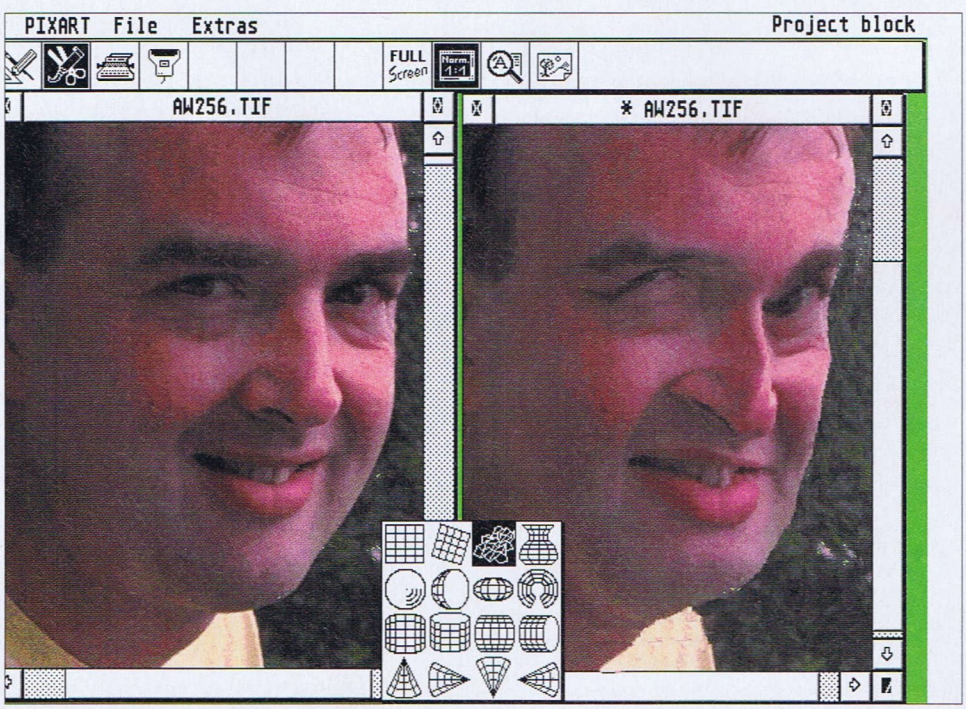
PixArt is a good paint package with some unique features and a clever, easy-to-use interface. It is let down by its behaviour when used with other programs and, for UK users, its apparent inability to get on with the native ROMs on pre-STE machines.

DITHERING

There are some minor grumbles too. I'm disappointed that there is no dithering, which makes it particularly inconvenient for ST owners, and no high-end colour features such as gradient fills or multicoloured brushes.

That said, text handling is good, it can print to a wide range of printers – though not many colour ones – and it supports a good spread of file formats including the all-important TIFF.

Block and grid operations are astonishing for a budget package and the program might well be worth buying for those alone – the number of effects you can produce is limited only by your imagination.



A bit of self-image manipulation? Well, I was ugly anyway...

BOTTOM LINE

FEATURES
Innovative manipulation features makes it a useful paint package.

Excellent
Good
Average
Bad
Appalling

EASE OF USE
Interesting Calamus-like interface but some awkward features.

Excellent
Good
Average
Bad
Appalling

VALUE FOR MONEY
A worthwhile choice at the budget end.

Excellent
Good
Average
Bad
Appalling

Product: PixArt 1.02
Supplier: FaST Club, 7 Musters Road, West Bridgford, Nottingham NG2 7PP
Telephone: 0602 455250
Price: £34.95
Configuration: Any STE/TT/Falcon with 1Mb or more

Maths can be fun? Don't try telling that to your children – just demonstrate it on your ST and chances are they'll be hooked, says Richard Williams

Working out mathematical problems is not, generally speaking, a child's idea of having fun. But a great deal of importance is rightly attached to the teaching of maths in school, as children who fail to develop adequately in this area will find the number of options open to them in the future far more limited.

Giving children a good start in maths and arithmetic has generally been considered a job for experts, and for the most part, it is.

But with an ST in your home, and easy availability of programs which teach number work in an entertaining way, yet which meet the requirement of the National Curriculum, there's no reason at all why you shouldn't give your child a head start in the maths stakes.

All of the programs featured here make use of full colour (a TV will be fine if you don't have a colour monitor), and they are all fun to use, as well as genuinely educational.

NOT TOO COSTLY

From two years up to teens and beyond, every age range is catered for, and the good news is that none of this software is particularly expensive. For those on a tight budget, we've included an example of freeware from a PD/shareware library, but even the commercial packages average less than £20 each.

Of course, there are more programs dealing with the teaching of numbers than we've managed to squeeze on to these three pages, but the following represents a good sample of the quality that is available at, by and large, very reasonable prices.

We've decided to include programs aimed at teaching children to tell the time in this numbers feature, as well, as chronology is nothing if not a basic form of arithmetic.

Take our advice and investigate the full range before buying. You never know, it could make a big difference to your child's view of the world of maths...

● *Next month Richard Williams will be checking out educational programs which deal with shapes, including object recognition.*

Count and Add

Age range: under 7s
Lander Software • £25.99

Count and Add comprises five games: Sets 1 and 2 – matching and counting objects; Animals – counting; Train – counting and simple adding; and Spider – more advanced counting and adding.

Spider, the only game in this package which you play against the clock, has a touch of gruesomeness about it which should appeal to most children – if you don't beat the time limit, a butterfly is eaten by a spider which creeps up on it as the game progresses.

As well as these activities, the child can also choose Clock, which displays both analogue and digital clocks and a calendar showing the month and day.

The child's host is Shades the dog, who is gifted with a limited amount of audible speech. Through his speech bubbles, he addresses the child by his or her name, once this has been typed in at the start of the session.

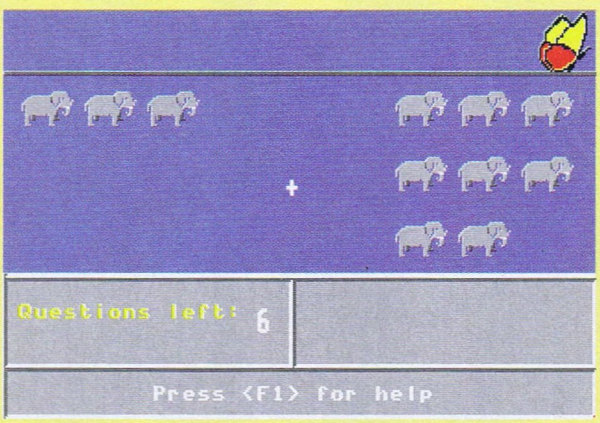
There is a useful parent/teacher section in which settings such as the speed of the spider, number of questions in a round, number of attempts allowed, highest number (up to 20) allowed and symbols to be used for addition and equals can be made. Recording of the results of a session can be switched on or off here.

A variety of colourful objects and animals are used as the items to be counted and added. These games are very well thought out and make important lessons very entertaining.

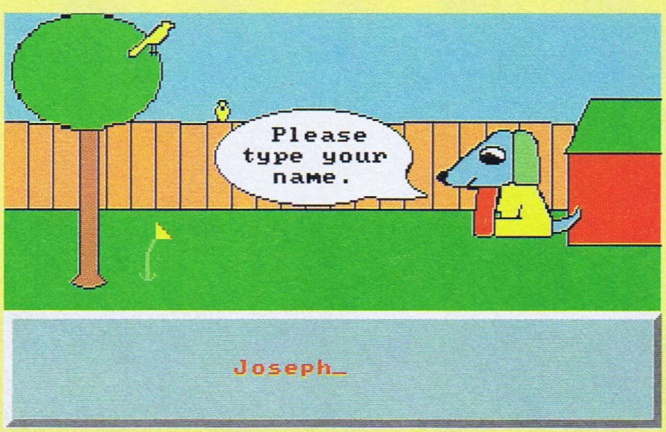
As with all Lander products, the parent/teacher booklet is excellent. You receive a free colour badge with this package, too – featuring Shades, of course.

Graphics	8	Very good
Sound	9	Excellent
Entertainment	7	Good
Education value	9	Excellent

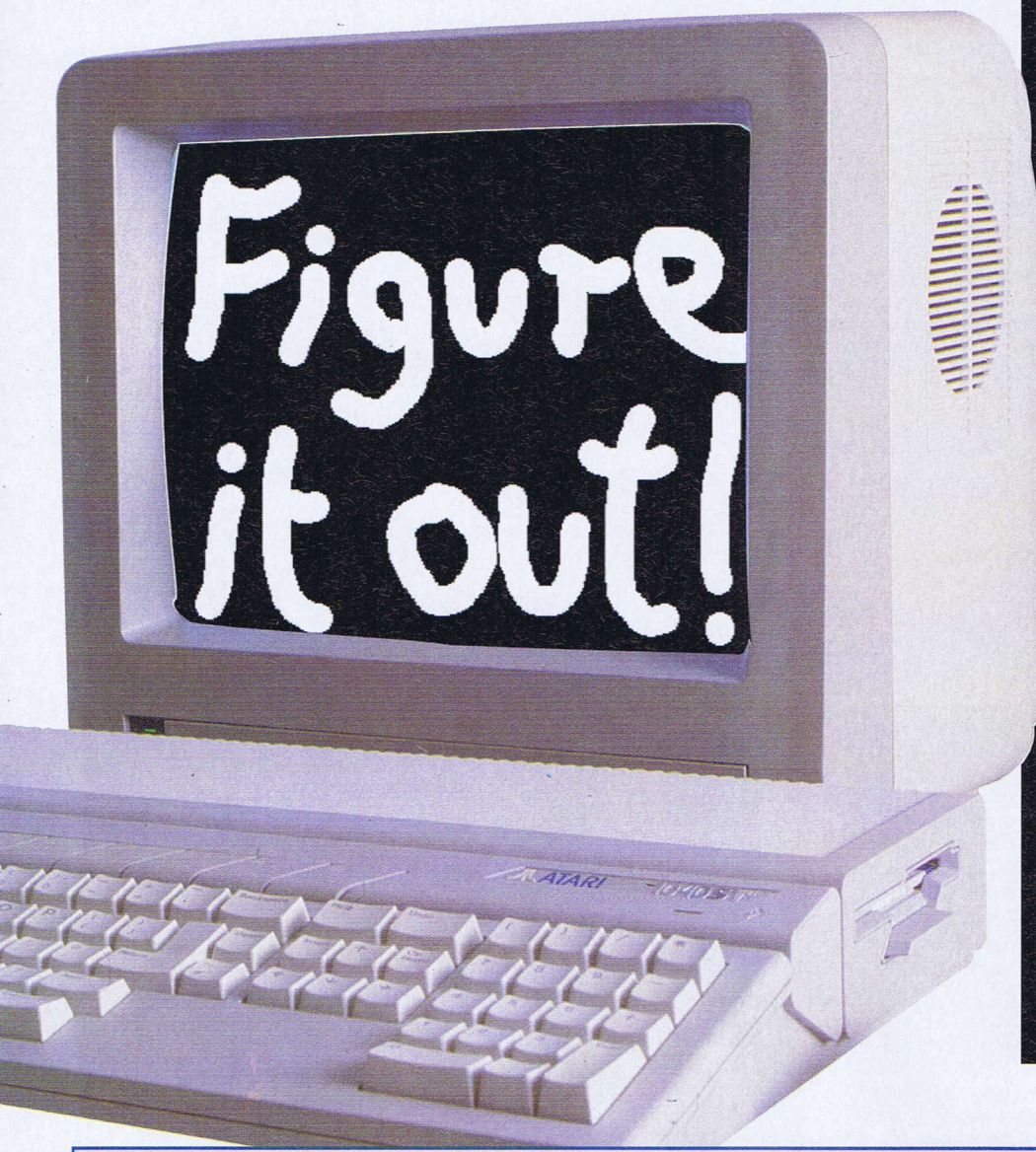
Pick a game! – choose from two Sets games, Animals, Train, Spider and Clock in Lander's Count and Add



Watch out! Add the two sides quickly or the spider eats the butterfly in Lander's Spider game on the Count and Add disk. It's interesting to discover how soon a child starts to stall deliberately so that they can see the butterfly being eaten...



Lander's Count and Add features a warm welcome from Shades the dog, who asked the child to write in his or her name



Post Office

Age range: approx 3-6
The Jumping Bean Company
£24.99 complete

This program is part of the Noddy's Playtime package. It features eight activities and is one of the best educational packages for younger children currently available for the ST.

Noddy is in his car, and children can point him in the direction they want him to go around Toytown in search of fun activities. Take him to the Post Office and he climbs onto a ladder in a bid to reach a naughty goblin who is on a low roof, clutching a stolen letter.

To help Noddy climb the rungs, the child has to post the required number of letters into the pillar boxes outside the Post Office. At level 1, the child posts the letter into any of the pillar boxes. At level two, the letters have numbers written on them, indicating which of the pillar boxes they are to be placed in.

At level three, the letters have sums on them. The child works out the answer to find the number of the pillar box to place a letter in. A postman then comes to collect the letters, and if the answer is right, Noddy moves a rung up the ladder towards the goblin.

It's all great fun, involves very straightforward use of the mouse, and teaches children almost without them realising it.

Graphics	10	Excellent
Sound	9	Excellent
Entertainment	10	Excellent
Education value	10	Excellent

Time Flies

Age range: approx 6-12
Coombe Valley Software • £14.99
(£16.99 from April)

Time Flies, written by husband and wife team Ian and Caroline Lycett-King using ST Adventure Creator, is designed to give practice with telling the time and time problems.

It deals with conversions between clock hands, numbers and words and also sets problems involving the difference between two times.

Both 12-hour and 24 hour times are dealt with. You can select the type of problem which is set, together with the degree of difficulty.

The game takes the form of an adventure in Father Time's house. He's had to go out for a while and has left you to dog sit the watchdog.

Unfortunately, the Time Flies have got loose and with Father Time out of the way, they are not on their best behaviour. Not only will they make you answer a time question whenever you meet them, they've also been moving things around.

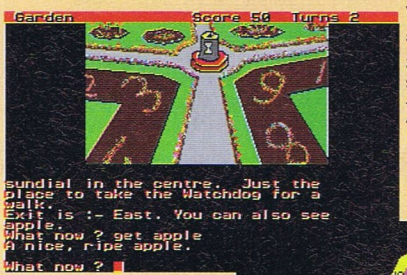
There are lots of items in the house apart from things for the watchdog and you may be able to get the Time Flies to leave you alone if you can give them a suitable present.

First impression of a Coombe Valley adventure is that it looks a little dated compared with much educational and adventure software available for the ST – but don't be fooled. My own children love these adventures, finding them far more absorbing than many of the more feature-packed and complex educational packages.

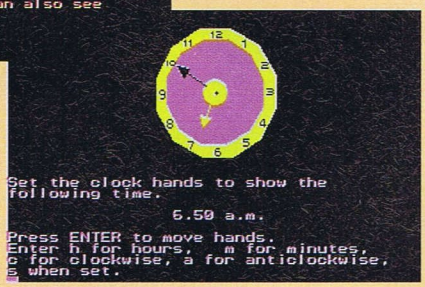
Graphics	5	Could do better
Sound	3	Poor
Entertainment	8	Very good
Education value	9	Excellent

Coombe Valley's adventures don't just teach children how to answer questions – they teach them to reason, deduce and generally think for themselves as well.

This is why it's so easy to forgive the Lycett-Kings for making the adjustment of the analogue clock when you're asked to tell the time in a rather clumsy, inelegant affair. It's probably due the limitations of the ST Adventure Creator.



We've got ourselves an apple – now it's time to go East and encounter some questions about time in Coombe Valley's Time Flies



Setting the time in Time Flies may prove a little tricky for younger children – but there's no problem with a little help from an adult or older child

Telling the Time

Age range: 3-12
Rainbow Educational Software • £14.99
(£16.99 from April)

This is a very appealing package which will provide younger children with lots of fun as they learn to tell the time. The questions are based around the antics of Bobby the Clown, who also features in the animated sequences which follow when a child does well in the activities.

No one should underestimate the complexity of telling the time from a child's point of view, and while they may find it easier to do from a 12-hour digital clock, the 24-hour clock and the old analogue (normal 12-hour) method of telling the time in particular can pose problems.

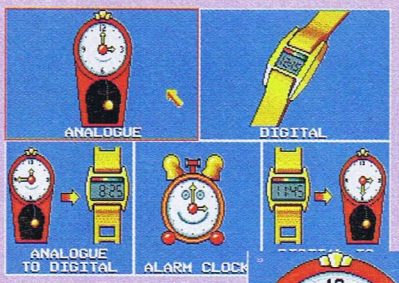
Telling the Time deals with these problems brilliantly. It features both analogue and digital modules. The analogue module has three levels. The first deals with times that are hours only (for example 12 o'clock), the second introduces the concept of 15-minute intervals, and the third, five-minute intervals.

Each analogue level is divided into two parts and each part asks five questions. Part 1 shows a time on the clock and the child then picks the correct time from a list. Part 2 asks the child to move the hands of the clock to the time in the list that has been highlighted.

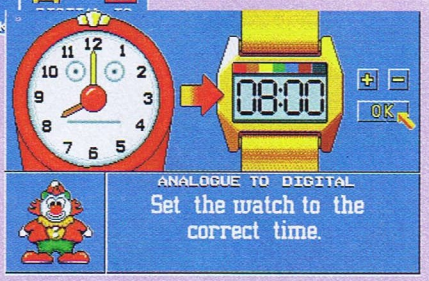
Graphics	9	Excellent
Sound	8	Very good
Entertainment	8	Very good
Education value	9	Excellent

The digital module features similar levels and parts, and the tutor or child can choose whether the clock is of the 12 or 24-hour variety.

There are also modules on converting analogue to digital and vice-versa, and an alarm clock program in which the child is asked to set the time for Bobby to be ready for a variety of activities.



Take your pick of the type of clock or what kind of conversions to try in Rainbow's Telling The Time



Converting analogue time to digital in Telling The Time

Count 'Em

Age range: 2-5
TCA £19.99 complete

This is part of Picture Book, which features several games and a free keyboard overlay to make matters easier for smaller children. Picture Book is a first-rate package which includes voice and great sound effects.

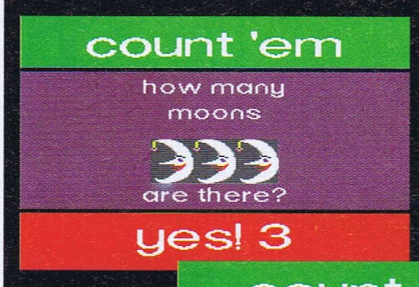
The Count 'Em game uses the same excellent pictures as the rest of the Picture Book suite to introduce children to the world of numbers.

The child has to press a number key corresponding to how many pictures are displayed. There are three levels – numbers up to three, up to six, and up to nine – and the levels can be cycled through simply by pressing the spacebar.

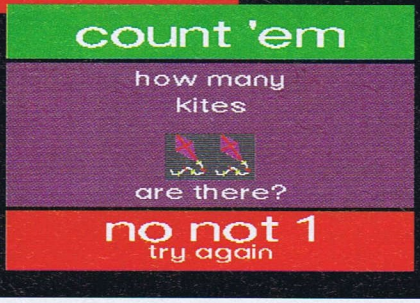
The voice tells the child if the answer is right or wrong, and there's a loud round of applause if the child is correct, or a loud buzzer if incorrect.

An entertaining little touch is that a sound relating to the kind of object displayed is played each time a new question appears on-screen. For a zip, it's an unmistakable zipping sound, and for a queen, it's a few notes from the national anthem. Neat.

Graphics	8	Very good
Sound	9	Excellent
Entertainment	9	Excellent
Education value	10	Excellent



Yes, we got one right! Counting the objects in Count 'Em, part of TCA's Picture Book, is great fun. The program includes voice and realistic



Oh dear – we've got one wrong this time in Count 'Em Never mind – try again!

In Piggy Bank, one of the games in TCA's Money Matters, children learn which coins make up the various amounts which appear on screen. A keyboard overlay makes choosing an answer very easy for smaller children

Money Matters

Age range: 2-11
TCA £19.95

Cozmo, Fizzy, Toothy and Boingy are the respective hosts for four games that will benefit children of all ages who want to learn or improve their knowledge of handling money.

The clown analogy was certainly right for me – my efforts at maths have consistently bordered on the comical!

All four programs are used with a unique keyboard overlay which comes as part of the package and replaces the keyboard's letters and numbers with pictures of coins.

Cozmo's Coins has three levels. In the first, children press any coin and Cozmo tells them what it is. In level 2, Cozmo gives the coin's value, and the child is asked to press the right coin on the keyboard overlay. Level 3 is similar to level 2, but this time Cozmo has a timer running, so speed is essential.

Boingy is an expert at adding coin values together. He chooses several coins which add up to 5p, 10p, 20p, 50p or £1. Children have to work out which individual coin is equal to the value of the ones Boingy has displayed. Varying degrees of difficulty can be set.

Fizzy sells chews, soft drinks and ice cream. He's always changing the prices of things and often gives the wrong change to his customers. In Fizzy's Pop, children help him to work out the total cost of items, and the change to be given. Children can "earn" money by giving right answers. But they have some deducted if they get one wrong. Again, different levels of difficulty can be set. In Piggy Bank, Toothy thinks of a number of pence and knows exactly which coins to add together to make that amount. He says how many coins are needed and asks children to find them.

As in Fizzy Pop, children can "earn" money, but if a wrong answer is given, Fizzy has to be paid.

Graphics	7	Good
Sound	7	Good
Entertainment	7	Good
Education value	8	Very good

Fraction Goblins.

Age range: approx 8 to GCSE age
Coombe Valley Software • £14.99 (£16.99 from April)

Fraction Goblins is very similar to Maths Dragons and Time Flies, but gives practice in the four rules of arithmetic as applied to fractions. At its simplest, the game allows those starting fraction work to make progress, while at its most difficult even good GCSE-level pupils may find a pencil and paper useful.

The goblins will tell the player the correct answer if they get a question wrong and will even deal with partially correct answers, where a player does not cancel the answer down to its lowest terms.

The program takes the form of an adventure in the caves of the Fraction Goblins. You've been invited to go and play with their young ones. You took your writing set there and while you were out of the room for a few minutes, the young goblins took the opportunity to catch up on their homework.

Nothing wrong with that, you might think. But the problem is that today's homework was borrowing. Returning is not on the goblins' list of subjects yet, so you are going to have to find things for yourself.

You will find yourself hindered by adult Fraction Goblins, who have a habit of asking you to solve fractions problems.

Graphics	5	Could do better
Sound	3	Poor
Entertainment	8	Very good
Education value	9	Excellent

Maths Game

Age range: approx 2-10 • Free!

One of several fun games included on the freeware disk Playtime, available for just a few pounds from the leading ST public domain and shareware libraries. If you're on a strict budget but still want your children to take advantage of the great educational opportunities afforded by your ST, why not contact one of the established PD and shareware libraries – they have some real gems?

Obtaining a disk and, if it's shareware and you like it, later registering your chosen programs, is likely to cost you a fair bit less in total than buying the usual commercial software.

I've chosen one program here – called, somewhat unimaginatively, Maths Game and described as freeware – included on the Playtime disk which I got from Goodman International.

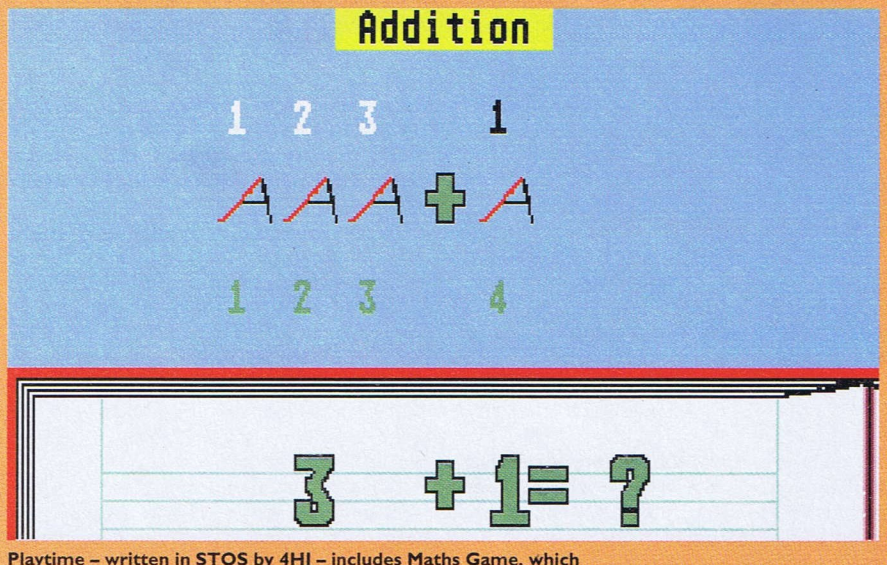
And guess what – it's one of the best number games I've seen anywhere, featuring not only good graphics and large figures which even very young children can focus on easily, but voice and music in the form of nursery rhyme tunes.

One of the really good features is the way the graphics and animation are used to help the child work out the answers to problems. For instance, if the child is asked to subtract 3 from 4, (s)he might be shown four London buses, three of which are continually driving across and off the edge of the screen, then reappearing, illustrating that three are to go and one is to remain. It's a genuinely wonderful game for children which helps with the basics of maths and provides lots of fun at the same time.

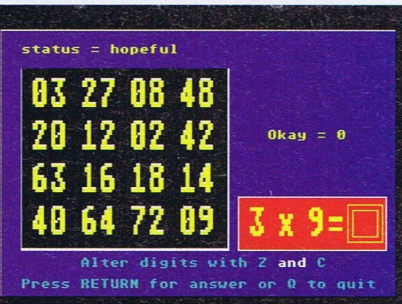
What more could you want? Well, perhaps some means of setting options such as number of levels, levels to start and finish at, number of questions per level and whether you want to hear the music every time the child gets a question right.

Don't worry – you get all that, too!

Graphics	9	Excellent
Sound	10	Excellent
Entertainment	9	Excellent
Education value	10	Excellent



Playtime – written in STOS by 4HJ – includes Maths Game, which features voice and music. A cheap and charming way to learn



In Eliminator, one of the games featured in TCA's Target Maths, the child chooses the figures for a multiplication sum. If the answer to the sum is one of the numbers in the grid, that number is eliminated. The idea is to empty the grid of numbers as quickly as possible

Target Maths

Age range: 6-13 • TCA • £19.95

The four programs in this package are aimed at specific National Curriculum targets. Eliminator has three levels of play and is a unique way to practise multiplication tables.

Your aim is to eliminate 16 different numbers displayed in a rectangle (it's a little bit like a bingo card). You achieve this by changing one or other of the two digits in a multiplication sum until the product (which is not displayed) is the same as one of the numbers on your "card".

FACTORS

Number Facts is in two parts – an open-ended investigation of numbers from 0 to 99 revealing characteristics such as even, odd, triangular, square and prime, and the factors of each number in pairs; and a two-player game which allows you to demonstrate all the knowledge you gained in the first part.

Scale Factor, with four levels, involves the positioning of an arrow on a scale, or ruler. The computer gives out decimal numbers, and the child moves the arrow to the appropriate point.

Complexity increases as the player moves up the levels, with extra difficulties like having to select your own scale for the ruler and doing decimal addition or subtraction to arrive at the correct point on the scale.

Slider is a computer version of snakes and ladders. The child has to find which numbers on a grid will take him or her up several places, and which result in a tumble.

Graphics	5	Could do better
Sound	5	Could do better
Entertainment	5	Could do better
Education value	8	Very good

Contacts

Coombe Valley Software and Rainbow Educational Software: 0626 779695
Lander Software: 041-357 1659
TCA: 0582 761395
The Jumping Bean Company: 0602 792838
Goodman International: 0782 336222

Advice

Colour print problem

Please can you help me? I have a Star LC24 200 printer and want to use it to print out colour pictures created with my Degas Elite art package.

I have been told that I need Imagecopy Colour 2, which is an accessory that should solve my problems. Is the problem with my ST or printer and, if not, will Imagecopy sort things out?

Keith Sommers, Birmingham

Your ST and printer are fine, the problem lies with Degas Elite which does not support colour printing.

Imagecopy will solve your problems; call ST Club on 0602 410241 and buy it now.

Which printer?

I want to buy a second-hand printer for my ST and was wondering if you could give some advice on what pitfalls to watch out for.

B Smithson, Middlesex

Two of the most important things to remember when buying a second-hand printer are that the printer is Epson-compatible and that it also comes with its manual.

The majority of printer problems which people write in about can be directly attributed to the printer not being Epson-compatible and not having a manual.

The manual is essential if you are to configure the printer's settings to make it work correctly with your ST. Such configuration is generally done through setting external switches (called dip switches) which set the various operating modes available for the printer.

You should also be wary of serial printers. These are outdated and old and are not supported in today's software applications – all modern printers are parallel.

1.44 Mb please

At my local computer club, there are some Mega STE computers with TOS 2.06 that can use 1.44 Mb floppy disks.

I have seen adverts in various magazines offering TOS 2.06 upgrades. If I get an upgrade for my 1040STE, will I be able to use 1.44 Mb floppy disks?

Peter Francis, Stoke-on-Trent

No. Although TOS 2.06 does have features which will recognise if you have a 1.44 Mb drive fitted, you will have to upgrade your 1040STE's disk drive controller chip with a high density module.

These are available from System Solutions (tel 0753 832212), who sell the upgrade as a kit, complete with 1.44 Mb drive mechanism for a reasonable £79.95.

The third dimension

One of my favourite types of game are those which use 3D graphics. Two of the best 3D games which have appeared over the years are Gunhead and Cybercon 3.

Having been gradually increasing my Assembly programming skills over the past seven months, I would now like to find a source of information on how to write my own 3D game.

I have been in various bookstores and found many expensive hard-back books on the subject of the mathematics, but they all seem to be concerned with other larger computers such as the PC or high end graphics workstations.

Can you tell me if there is a book on the subject of 3D programming on the ST which is aimed more towards the games side of things?

Ian Hall, West Sussex

The book you require is called* Realtime 3D Graphics Programming for the Atari ST, *written by Andrew Tyler and published by Sigma Press (ISBN 1-85058-217-3).

Mr Tyler is a research physicist at Manchester University who lectures in Assembly programming and uses 3D graphics programming techniques in his classes.

All examples in his book are in Assembly language and topics covered include screen mapping, colour palettes, raster line drawing, solid 3D and even joystick control for games. What's more, it's all ST specific and well written.

SIMMple upgrade

I currently have an Atari 520STFM and want to upgrade the memory. I have decided that 2Mb would be sufficient, but after speaking to a friend, I was told that it is possible to have 2.5Mb. Is this true and, if so, where can I get it done?

A Burgess, Wolverhampton

Go Direct are currently running a brilliant memory upgrade offer for all ST/STEs. For your particular needs, you can take advantage of the 2.5Mb upgrade for a mere £59.

A fitting service is also on offer for those who do not relish the idea of opening up their computer. For more information, call the order hotline on 0480 891171.

Video titling

I want to add text titles and information to my home videos and was wondering if there is a program for the ST which will allow me to do this.

I would also like the ability to bring text onto the screen in a variety of ways, such as wipes and fades. Ideally, I would also like to import pictures if possible. I don't have a great deal of money to spend (about £25). Can you help?

N Donahue, Liverpool

I sure can help, or rather Goodman International can. The program you need is called Video Supreme and is the best video titling program around that I know of.

With it you can add colourful graphics using various screen effects like the ones you mention. It costs a mere £14.95 and considering your budget, it is also worthwhile buying the add-on program Screenmaker (costing £9.95) which will allow you to include text in lots of different font styles.

Screenmaker and Video Supreme are both available exclusively through Goodman International on 0782 335650.

Midi connection

I've had my Atari 1040STE for about six months now and am very pleased with it and your excellent magazine. Keep up the good work.

Now, on to my query. I have four friends who all have STs and live only a stone's throw away. One of them has a musical bent and has all manner of musical instruments attached to his ST via the Midi sockets. During a recent get

Information on the inside

A lot of readers have been writing in expressing concern over the availability of technical documentation for both the ST/STE and Falcon.

It's true that there has been a less than ideal amount of such information, but the situation has improved significantly thanks to HiSoft.

The two most recent additions to the field of Atari computer manuals come from HiSoft (Tel. 0525 713671). *Modern Atari System Software* (ISBN 0 948517 63 8) is written and compiled by Tony Racine and Alex Kiernen, both of whom have a substantial knowledge of the innards of all Atari computers.

It runs to 241 pages and contains a wealth of detailed information on the Falcon and newer TOS operating systems from within C, Basic and assembly. Topics covered include MultiTOS, MiNT and SpeedoGDOS. An ideal buy for £19.95 + £1 p&p.

***The Atari Compendium* (ISBN 0 9638331 0 3), HiSoft's second offering, is a massive tome running to an information-packed 860 pages. Unlike *Modern Atari System Software*, which goes into some detail on many of the functions listed, *The Atari Compendium* is more a reference source.**

It is also more extensive in that it contains information on all Atari computers and covers TOS v1.0 through to v5.0. Considering the amount of information in it, £39.95 + £2 p&p is quite reasonable.

SERVICE

together, our musical friend told us that he had heard of a maze game which used the Midi ports to allow multi-player games.

Is this possible and, if so, what is the game called, where can we get it and will we need any special hardware to connect our computers to play this game?

H Field, Edinburgh

The game you need is called Midi Maze and there are two versions. Midi Maze II is the most exciting to play as you have all manner of power ups to collect and use against your opponents. Midi Maze I has a simple wander around and shoot anything that moves gameplay philosophy.

The only extra hardware you will need are a pair of Midi leads for each computer you want to connect. Midi Maze II allows up to 16 players to be connected in a Midi ring network. This means that the Midi cables are connected Midi In to Midi Out, and visa versa, to the other computers, with the last one in the ring connected to the first.

All this is covered in the on-disk documentation. What's more, the game is shareware and available from most public domain libraries (check out the adverts in this issue for your nearest PD library). It's brilliant fun and well worth the money.

Modem worries

I have bought a modem and wish to connect it to my telephone line. Is it wise to have a separate phone line instead of using the one for voice too.

Also, my modem supports MNP5 protocol. What the hell is it? I got the modem second-hand and didn't receive a manual.

T Ordish, Sheffield

It's quite safe to connect the modem to your current phone line. The only possible problem is that should anyone pick up the phone while you are logged on, you could lose the connection.

A separate line obviously provides the maximum convenience. Also, if your modem is not BT approved (look for a green sticker, usually on the underside of the modem, which indicates it is approved), BT are legally in their rights to prevent you from connecting it to their phone system.

MNP5 is a feature which performs error correction and compression between suitable modems. The net effect is that your connection is more secure against errors and a marked increase in the speed of data transfer is achieved.

Fight fragmentation

I own a 340Mb SCSI hard drive which is attached to my Mega STE4. I have had the drive for about nine months now and am very pleased with it.

However, I am at a point now where a significant number of important files are stored on it and I need program which will allow me to back up the hard disk.

Also, I have been informed about "fragmented" hard disks which adversely affects hard disk performance. Could you therefore advise me of a suitable defragmentation utility to accompany the hard disk backup program?

I Watson, Leeds

Look no further than Diamond Back 2 and Diamond Edge, both from HiSoft. Diamond Back 2 is an excellent and very powerful hard disk backup utility which has masses of features to help make backing up your hard drive easy and pain free. Diamond Edge offers hard drive diagnostic features including defragmentation. It's essential if you suddenly find your hard drive is having problems in that it can perform a diagnostic check and can even repair some of the more common faults.

Another hard drive utility from HiSoft which might interest you is DataLite 2. I say might interest you because with a healthy 340Mb you may not be having space problems yet.

If you do happen to be running out of space, DataLite 2 is a disk compression utility which effectively doubles the capacity of your hard drive by using some pretty advanced compression/de-compression routines which operate in the background.

Diamond Back II costs £39.95 while Diamond Edge and DataLite will set you back £49.95 each. For more information, call HiSoft on 0525 718181.

LAN lookout

I have an Atari Mega STE 4 and for some time I have been looking for any software/hardware package which will allow me to use the LAN port which comes as standard.

I regularly meet up with a number of friends at a local club and three of them are very experienced games programmers.

We are toying with the idea of writing a multi-computer game for ourselves and would like to know if there is any networking package which can use the LAN ports. Can you help?

R Williams, Yorkshire

Unfortunately, I am unaware of any packages which will allow you to network your machines together via the LAN ports. However, considering your reason to do so, I would suggest you utilise the Midi ports. This would make your game much more accessible to the normal ST user as the LAN ports are specific to the Mega STE, TT and Falcon only.

CD-ROM connections

Thanks to a friend who has recently gone to live in Florida, I now have a NEC CD-ROM drive and an optical disk drive. Both of these peripherals have a SCSI port on the back with a switch for setting the device ID number.

I would dearly love to connect these to my 1040 STE but do not know what I need to do this. Will I need to have a special lead from the Atari's hard disk port to a SCSI connector made up for me or are things more complicated?

K Connor, Wales

To connect these peripherals to your 1040STE is not necessarily complicated but is going to cost a little money.

The product you need is called The Link. This includes a SCSI cable, ICD utilities and the actual Link cartridge which allows many SCSI devices originally for other computers, such as the Macintosh, to be connected to the ST.

System Solutions have a limited stock left and it is well worth the £89.95 + £2.96 p&p in order to take advantage of the many SCSI peripherals available.

Got a problem?

Are you at the point of taking an axe to your ST? Do you want to pulverise your printer? Well just count to ten and relax. Then, jot down the problems you are having, along with a detailed description of your setup.

Include information on the type of ST you have, the TOS version (if known), what peripherals are attached and any extra hardware that lurks inside your computer (accelerators, graphics cards and so on) and I'll do my very best to come up with a solution.

For those who have had problems and overcome them, chances are that someone somewhere is having the same problems and would benefit from your advice.

So get in print and send any tips or suggestions that other users may find helpful.

Send all tips and cries for help to: Darren Evans, Advice Service, Atari ST User, Europa House, Adlington Park, Macclesfield SK10 4NP

Another great ST User offer!

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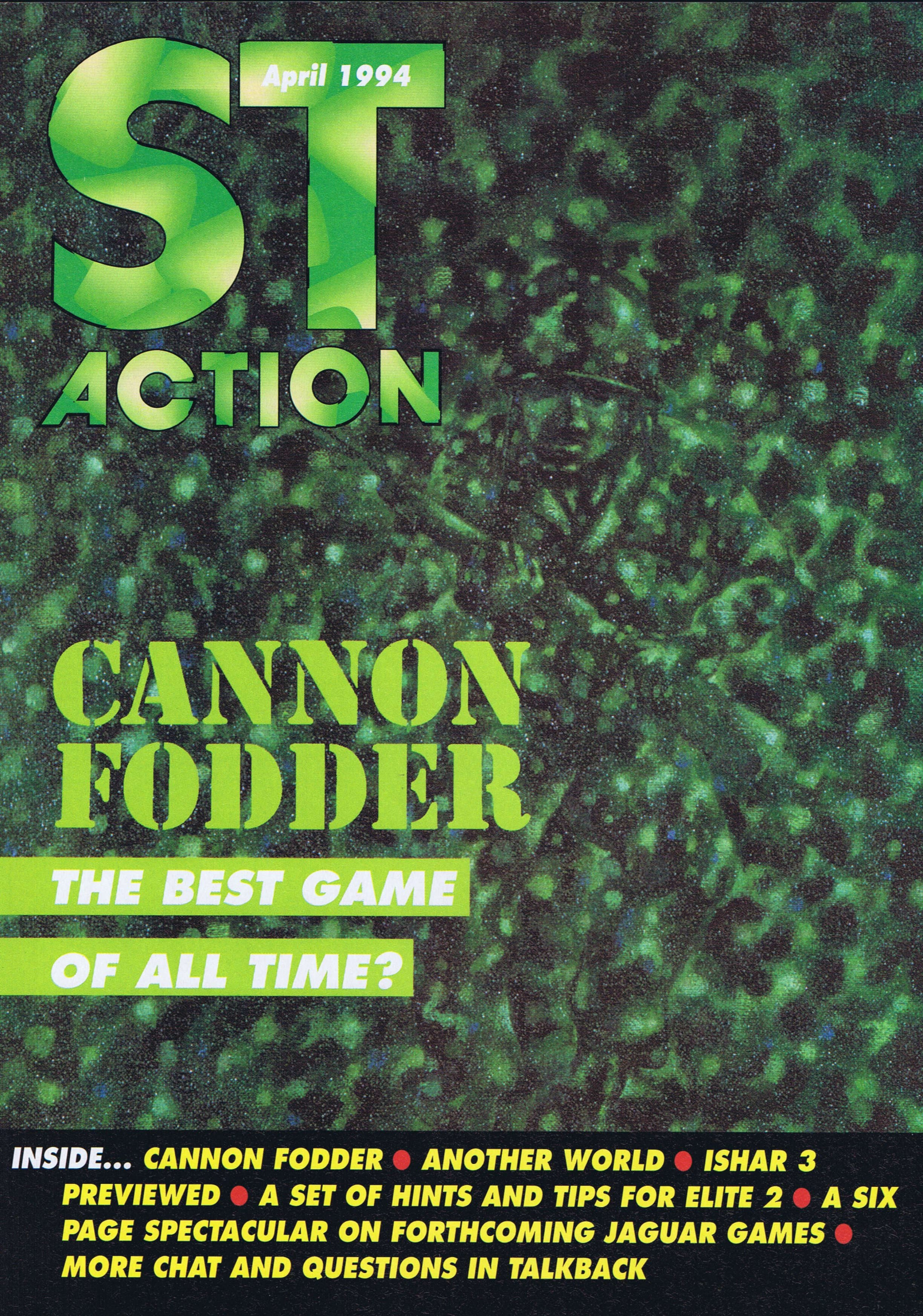
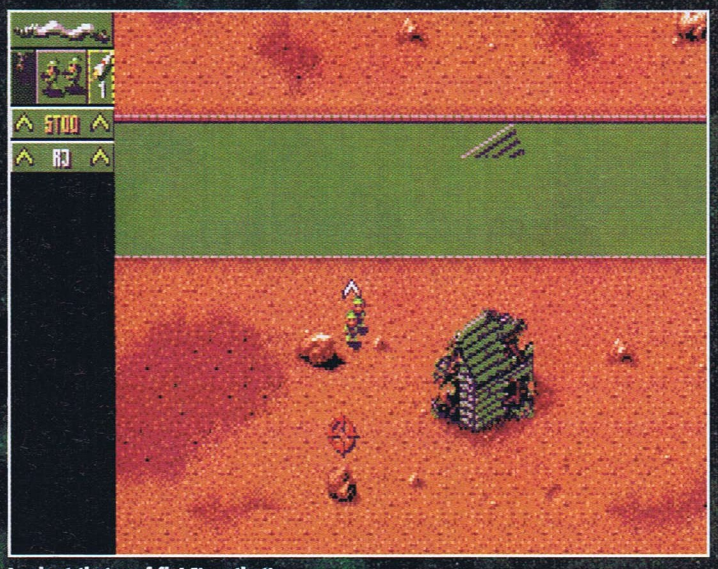


INSIDE... CANNON FODDER ● ANOTHER WORLD ● ISHAR 3 PREVIEWED ● A SET OF HINTS AND TIPS FOR ELITE 2 ● A SIX PAGE SPECTACULAR ON FORTHCOMING JAGUAR GAMES ● MORE CHAT AND QUESTIONS IN TALKBACK

The start of your war and the heat is unbearable, the tropical birds are squawking and your trigger finger is itchy



Look at that roof fly! Now that's accurate bombing for you!

CANNON

Sensible Software return with a bang with their supposedly controversial war-'em-up

An outraged Liberal Democrat MP called it "monstrous". British Legion chiefs labelled it "appalling". The *Daily Star* said it was "shameful" and advised people to make sure they didn't buy it.

As you might have guessed from the headline on the page, "it" is Cannon Fodder, Sensible Software's latest offering. Why all the publicity and all the fuss? Well, papers will be papers and they will blow things out of proportion.

The reason for all this uncalled for and unfair publicity is because Sensible included the distinctive poppy symbol in the game. MPs and war veterans were apparently outraged which is fair enough I suppose, but there are ways and means of getting a problem like that solved.

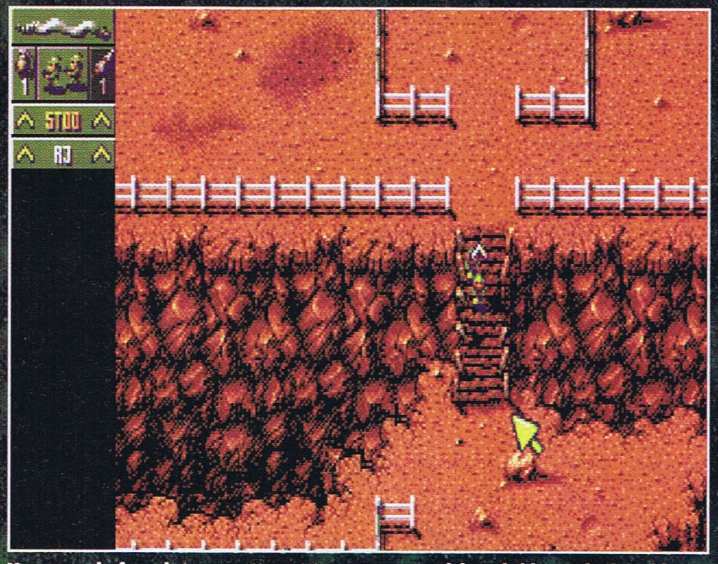
Having a newspaper sensationalise it, going over the top and being inaccurate in their reporting, is not the way to do it. Cannon Fodder is not shameful, monstrous or appalling, but is instead one of the best games you're ever going to clamp your sweaty mitts on. The poppy has now been removed and everyone is happy except perhaps publishers Virgin and Sensible Software themselves who could have done without any of the hassle involved.

Enough of all this! You lot want to know about Cannon Fodder. To save you reading to the end of this text I could just tell you to go out and buy it. Sensible Software have never produced a bad game and more recently have dominated the software market with such excellent products as Mega-Lo-Mania, WizKid and Sensible Soccer.

I will enthuse later about how good Cannon Fodder is, but before that you'll need a bit of information on what it's all about. Before the action actually starts you need to call up some fit young men to become troopers. Over at Boot Hill there is a queue of some 360 eager conscripts waiting to head off to war to do their bit for Blighty. Only 15 of them are allowed to volunteer for each mission. As the missions progress you start to lose men and new soldiers are thrown into war with the more experienced troops. There are 24 missions to complete, and each one has a different

Ten seconds into Cannon Fodder and already the blood has started to spill

The grenade at his dad's garden shed. "Boom!" went the shed



Your squad of crack troops attempt to cross a very rickety bridge. It looks a bit too much like the end of Indiana Jones and the Temple of Doom for my liking

Oh look it's that famous film Bridge Halfway over the River Kwai

FODDER

ACTION GOLD

terrain and objective. Most missions are split into a maximum of six phases. You do not directly control troopers, but instead determine their behaviour.

This is achieved by using the mouse, the mouse pointer and a troop leader. Troopers will only follow their leader, but they can also be encouraged to split up and do their own thing.

By splitting your team of soldiers into small squads, you introduce a big strategy element to the game. You have plenty of choices as to what to do with your squads, but as an example you could send one man into the danger zone and see just how much destruction he can cause before he dies, thus leaving the area relatively clear for the rest of the team.

A more sensible way of splitting up your squads is to get one set of soldiers to cover the others. This part is quite tricky because you're constantly changing views and it gets slightly confusing, but practice makes perfect and after a few goes you'll soon start to master the tactic.

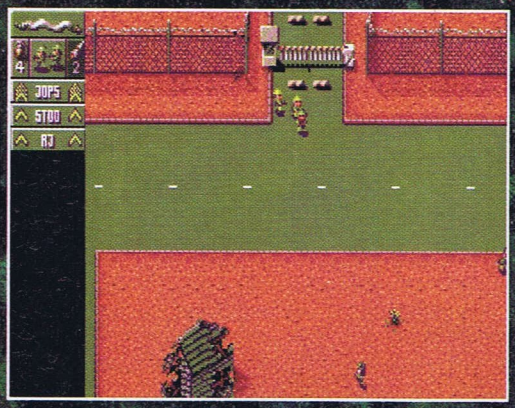
At the beginning of your adventure all the troopers are conscripted as lowly privates. Your troopers' ranks increase for every phase that they survive, but promotion only occurs when a mission is complete.

The missions start off very slowly and are quite easy. This is to get you into the swing of things. You start to wonder why you need 360 men, but as soon as you hit the fifth mission everything gets that little bit harder.

In the previous levels you have met up with normal soldiers, but later on you start to meet bazooka-wielding troopers and realise that Cannon Fodder isn't the breeze you thought it to be.

The control system is worth mentioning simply because it is so good. On the very first level it becomes as natural as watching *Coronation Street*, which to be honest is the most natural thing in the world. The mouse pointer is swept around the screen and more of the terrain is shown to you. By clicking on it with the left button, your squadron of troops will move to that point.

A quick picture of Checkpoint Trevor. It's kind of like Checkpoint Charlie, but not!



The right button is your killing button. When pressed it lets rip with a deadly hail of bullets from your soldiers which will imbed themselves into the nearest object.

Hitting the enemy with your weapon will cause them to splatter blood all over the place. This is quite nasty, but in Cannon Fodder it's kill or be killed.

By using a combination of both buttons you can use your grenades or bazookas which inflict major destruction upon the enemy and tend to make them jump 15 feet in air and then, err, die.

I know a lot of games have been blamed for the increasing violence present in our society and I know that once you start to play Cannon Fodder you feel like a cross between Dirty Harry, Travis Bickle and the whole cast out of *Reservoir Dogs*, but this is war and war was never about fluffy bunnies and scented flowers. As well as the bog-standard weapons you can also use vehicles. These come into play later on in the game and are enormous fun to drive around the screen.

At first Cannon Fodder looks like fairly run-of-the-mill stuff. Some people might even call it an average shoot-'em-up, but as you progress you get amazingly addicted and the completion of a level becomes more important than eating, drinking and maybe even life itself (err, probably). It's more an experience rather than a piece of leisure software.

Sensible's war-'em-up is one of those games that you can completely immerse yourself in. The graphics are brilliant; although the men are small they seem to have characters all of their own which is all attributed to the excellent animation.

They are very similar to the sprites seen in Sensible Soccer and you could be excused for thinking that they look a bit like Manchester United in a green away strip.

The backgrounds are perhaps the best graphical aspect of the game. Due to all the different terrains the backgrounds constantly change. They range from the brilliant greens in the jungle level to the icy cold world of the

➤

...and then just as Bill and Roger were about to give up hope they stumbled upon a whole load of bazookas and grenades. "Hurrah!" they shouted as they rapidly disposed of the opposing army

Arctic level. A lot has been said about Cannon Fodder and its level of violence and the alleged fact that it glorifies war. Although it is violent, Sensible's war-'em-up doesn't really glorify war.

Every time you lose men, graves are placed on Boot Hill. The game shows you the other side of the war and how many soldiers actually lost their lives. In fact, when you lose a man while playing it's almost like losing a best friend.

There are loads of nice little touches, such as the men celebrating to a cheerful victory tune after completing the phase. Another nice touch is when one of your men takes a bad hit and lies on the floor screaming his head off while blood shoots out of his body, and it thus becomes your solemn duty to end his pain.

It's sad and quite painful to watch, but you have to wipe those tears from your eyes and get your revenge by defeating the enemy.

Being a games reviewer I must point out good and bad points for each piece of software, but I am getting a headache trying to criticise Cannon Fodder.

I suppose the game could do with a two-player or multi-player option more than anything. On the technical front, the sound isn't that good. The tunes, although adequate, aren't really up to scratch and the only sound effects you get are a few gun noises and explosions.

The scrolling is also a bit dodgy and sometimes causes your men to die; the screen suddenly jumps and you're unexpectedly faced with three enemy soldiers and it appears that they've surfaced from nowhere.

Sensible's war-'em-up is not for the first-time gamesplayer because it is incredibly difficult. Even hardened and experienced gamers will have major problems with some of the later levels, but those people will start to like the game even more because they will play it and play it until they bloomin' well complete it. I love Cannon Fodder and so should you. The game is on a par with Lemmings and Populous in the originality and playability stakes. If you still haven't bought it then I must stand up and question your state of mind.

Cannon Fodder is one of those games that should have a big warning sticker on the front saying: "This piece of software will cause tiredness due to its addictive nature and you will find yourself staying up into the early hours without food and drink".

Sensible Software are one company who seems to go from strength to strength; no matter what game they create it's almost guaranteed to be a best-seller.

This is one of the most playable games you will ever play and also one of the most fun. A rootin', tootin' shoot-'em-up of the highest order.

JONATHAN MADDOCK

Now if anyone can spot the grenade I will give you a prize! Well, I won't really, but I bet you can't spot it!

Your squad finds themselves deep in enemy territory and they are just about to become... cannon fodder

The first phase is complete and there are only hundreds more to go

"Try again" are two words which you'll be seeing rather a lot of when playing Sensible's war-'em-up

VISION	★★★★★★★★★★
AUDIO	★★★★★★★★★★
DIFFICULTY	★★★★★★★★★★
LASTABILITY	★★★★★★★★★★

94%

Packed full of gorgeous graphics, phenomenal playability, frenetic fun – and it is astoundingly addictive. What are you waiting for? Go and buy it.

Publisher ➤	Virgin
Developer ➤	Sensible Software
Disks ➤	3
Price ➤	£29.99
HD Install ➤	No
Size ➤	1 meg

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ANOTHER WORLD

No, we're not all whacked out on strange substances, we've just opened a box of goodies and booted up the game to get to our other world!

Very often when budget titles drop through the *ST Action* letterbox they are treated as second class citizens, but not so where Another World was concerned.

No sooner had the Kixx XL box slipped from the posty's hands, and it was in the vice-like grip of this reviewer.

Programmed by French software house Delphine, Another World comes from the same stable as top titles like Future Wars, Cruise for a Corpse and more recently the brilliant Flashback.

The majority of Delphine's games are very stylised and use a similar engine to drive them. This system has meant that their software has grown from strength to strength over recent years, to the extent that they have won awards all over Europe.

In Another World you take on the role of Lester Knight Chaykin, a brilliant young scientist who is working on a top secret project. The action starts one dark stormy evening, and we are introduced to Lester through a superb animated intro.

It starts with Lester's Ferrari screeching into the garage of his laboratory. He gets out and strides to a security door, punches in a number and the door parts in acknowledgement.

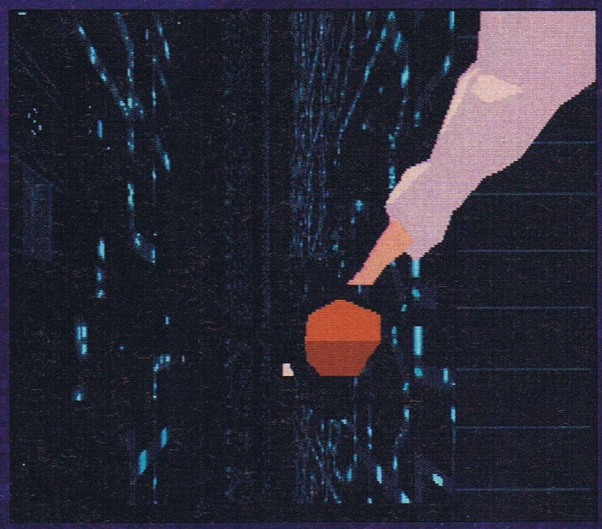
Once through the door he moves to a desk and sits down, and a screen jumps to life as though it realises Lester is present. This fact is confirmed when the machine scans him and profiles his DNA.

Once the computer recognises Lester it accesses a program. The late working scientist punches in some codes and a start-up sequence commences.

It's at this point we are introduced to Lester's work, a top secret project into particle acceleration. As the machinery counts down to commence an acceleration experiment, the storm outside rages harder and becomes more violent.

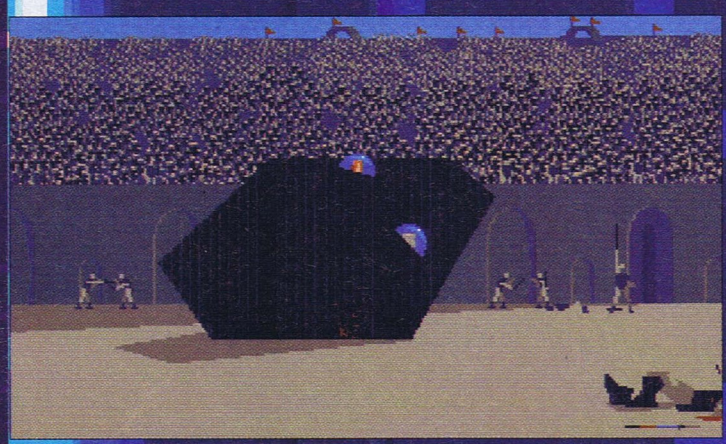
As the particle accelerator experiment reaches its critical point a freak bolt of electricity hits the building and earths into the computer system.

This causes an overload in the particle accelerator and sends a massive amount of energy coursing through Lester's body.



To add the extra cinematic feel you have to have the buddy-buddy you saved my life I'll save yours

Splash down! Lester turns up in his pod at a private health club



If in doubt take a rather large tank into the gladiatorial arena with you

The result of this shock disrupts the scientists molecular structure and sends him from his laboratory through to some strange world in an alternative dimension.

As if this wasn't harrowing enough for our beleaguered professor, he rematerialises in this alien world, underwater and wrapped up in the remnants of his desk.

As soon as this excellent introduction has reached its final frame, you take control. Indeed, your first movement of the joystick determines whether Lester sinks to a watery grave, or scrambles desperately exhausted to the surface.

To all intents and purposes this is where the introductory plot finishes, and play takes over. After surfacing, you find yourself on the surface of a very alien planet.

While you are never actually told what you're supposed to achieve here, it doesn't take a very high IQ to deduce that escaping back to your own dimension isn't a bad plan.

The first things you encounter on this bizarre planet are some poisonous slug-like creatures equipped with a substantial set of choppers.

This is where you learn the control method for moving Lester. He has a variety of kicks (which do an outstanding job of squashing the said alien slugs), and can crouch, run and jump like any normal human being, which isn't bad for someone whose just been through the equivalent of a nuclear powered liquidiser.

Once you're passed the poisonous molluscs, you'll meet a far greater foe. Here your best and probably only option is to run like crazy until you're rescued by alien inhabitants of the planet.

Unfortunately these creatures are not particularly good folk and imprison you in a mine where they have other creatures held.

It's at this point, while imprisoned, you'll rescue a friendly alien who knows the mines like the back of his gnarly hand, and is obviously invaluable.

Also, to aid your bid for escape you'll find a blaster that seems to have a multitude of uses. Obviously it's not too bad at blasting things into very small pieces, but it also can be used as a defensive shield.

Now, before you start thinking that I've inadvertently ruined the plot for you, don't worry, this really is the tip of the iceberg. It's real point is to familiarise you with the finer points of control, introduce you to your companion and team you up with that naughty blaster.

There are many fine points to this classic arcade-style adventure. The most engrossing thing from the player's point of view is the way that the plot unfolds and develops as you play.

This not only keeps you interested as the storyline twists and turns from one angle to the next, but because of the style of Another World, keeps you genuinely on the edge of your seat.

A great deal of the success of the playability is also down to the graphical style of the game. Its look, while quite simple and

lacking detail, is terrifically cinematic and very atmospheric. The animation just adds to this movie-like feel, and again while simple in look, it is very smooth and effective.

While we're on the subject of movies, no movie would be complete without its soundtrack. Another World doesn't boast an in-game theme, but does come with a whole host of sound effects.

Again, this was a correct decision on Delphine's part, as a tune would have taken the dramatic edge and atmosphere away from the adventure. Another excellent feature is the way in which you use a code to access your saved game. Rather than having your place saved on disk, you enter a four-letter codeword which takes you to the relevant scene. This is not only simple to implement, but also means you don't become infuriated and play it from the beginning.

Another World is truly a classic title and there isn't really a criticism that can be brought against it. The puzzles are lateral enough to stretch your brain, but not enough to keep you stuck for any duration of time.

The presentation of the graphics and animation are excellent and the idea behind the game is a strong one. It was a classic on its original release, it hasn't dated, and now it's just a fraction of its original price.

If for some strange reason you didn't fancy it last time, or indeed couldn't raise the cash, I implore you buy this brilliant montage of arcade thrills and RPG adventure.

SIMON CLAYS

Our scientist friend loses all sense of morality as he decides to perform genocide on a whole species

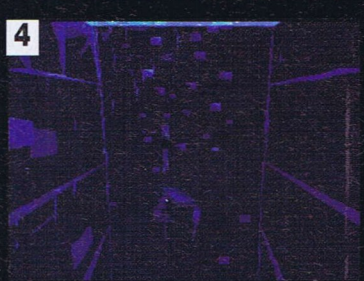
Lester and his alien friend fly off on a dragon for two singing Rolf Harris songs

Back to the future

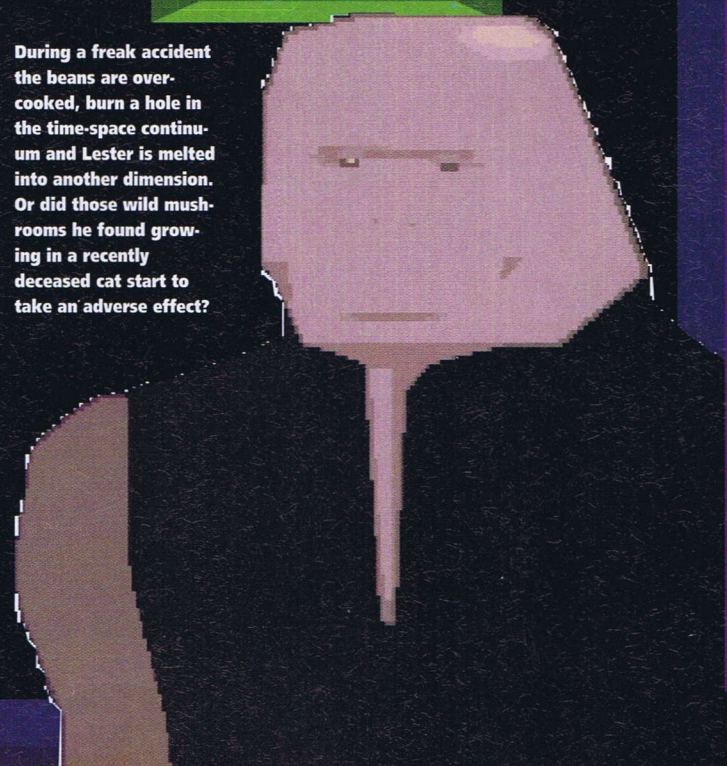
1 It's the dead of night, the buzz of static hangs in the air and Lester's practising handbrake turns in the NCP

2 Putting his own-label beans into the microwave, Lester cooks lunch

3 During a freak accident the beans are overcooked, burn a hole in the time-space continuum and Lester is melted into another dimension. Or did those wild mushrooms he found growing in a recently deceased cat start to take an adverse effect?



4 In a vain attempt to reduce the hallucinations, Lester goes swimming with a grand piano. Normal behaviour, huh?



ACTION GOLD

VISION ★★★★★★★★★☆

AUDIO ★★★★★★★★★☆

DIFFICULTY ★★★★★★★★☆☆

LASTABILITY ★★★★★★★★★☆

91%

A veritable classic in its own right. Another World looks great, plays well and is worth anybody's hard-earned cash. When you pick this one off the shelf be prepared to hear a choir of angels followed by a blinding light and a feeling of enlightenment.

Publisher ➤ Kixx XL
Developer ➤ Delphine
Disks ➤ 2
Price ➤ £14.99
HD Install ➤ No
Size ➤ 1 meg

JAGUAR

P·R·E·V·I·E·W·S

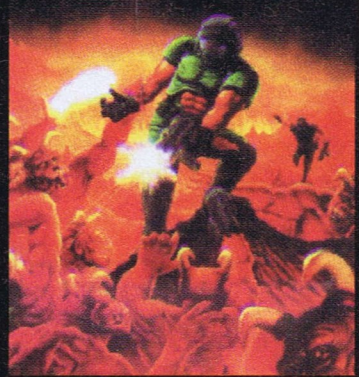
The Jaguar

As the big cat moves to our shores, Adam Phillips asks what software is coming out for this 64-bit console and whether it will roar in 94?

A year ago, Atari were seen by many as dead in the water.

Then they announced the Jaguar, a 64-bit console whose specification left the likes of the Super Nintendo, Mega Drive, CD32, 3DO and CDi wincing in embarrassment.

Despite various claims that the machine is not true 64-bit, consumers Stateside seem to have decided that Atari's new baby is the one to have.



Sales have surpassed the company's expectations, creating delays for the British public while those units intended for us are put on hold to meet the growing market in the USA.

The first signs suggest that Atari may soon rule the consoling world just as they did back in their heyday with the VCS 2600. As all of us know, the only way that this can truly happen is if the software can boast the same superiority over the competition that the Jaguar's specifications do.

What follows is run-down of some of the big games that are to be released in the following year. The software scene is looking promising for the Jaguar with a multitude of companies committing to it. It would appear that these aren't empty promises either (unlike those of many CD32 developers) By all accounts, with the results in the US being very positive, Atari's black cat may roar the house down this year. We wish it luck...

moves in

Return to Zork

Activision

Release date: Not known

The Zork series of adventures has been around since the beginning of computing attracting critics and players alike into the involving text-based puzzles with interesting storylines and characters.

Last year, Activision brought the series into the CD world with live action actors, stunning visuals and a puzzle-laden adventure.

With the imminent release of a CD-ROM for the Jaguar, Return to Zork is making its debut with over an hour of speech, a cast of not-so-famous Hollywood actors (remember the guy who played Flash in *Flash Gordon*?) and 200 musical themes to aid the player on their quest.

Doom

Id Software

Release date: August

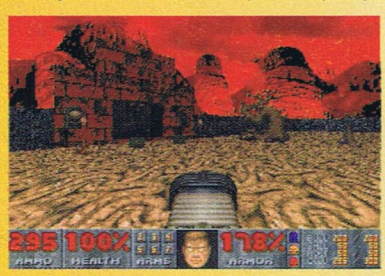
Doom has taken the PC world by storm, hailing in the next generation of first-person perspective shoot-'em-ups. While the graphics may not look as polished and perfected as Aliens vs Predator, the gameplay is absolutely scorching and the speed of movement on a PC is a sight to behold.

There are no pretensions to in-depth strategic gaming or twee plot. Door has three scenarios set in and around hell itself, and the premise is simple – go in, blow the living daylights out of anything that even vaguely moves (in glorious gory graphics), grab weapons, ammo, power-ups and key cards, and find the exit to move onto the next level.

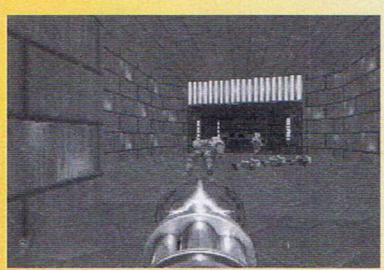
This may all sound untaxing, unoriginal stuff, but it has to be one of most addictive games created – the frenzy never lets up! Fluorescent lights flicker on and off concealing monsters in the shadows, producing a genuinely suspenseful and, at times, taut setting.

Each level is massive with constantly changing graphics, and your weapons range from a chainsaw to huge pulse laser guns that rip the enemy to shreds.

There should be no real problem converting the excellence of the original PC version over to the Jaguar. This is classic gaming stuff, a title that legends are made from. Simple and superb gameplay.



Doom, a ferocious and fiendishly addictive blast-'em-up – the Jaguar should be able to match the PC version (shown here) blow for blow...



The chain gun (last seen in Terminator 2) is ideal for taking out large, copius amounts of the enemy

The intro screen of Tempest 2000 – look at all the different versions

The Atari 2000 series

Atari

Release date: April

For all owners of the old VCS system, here for your delight are upgraded and improved versions of two old classics. Tempest 2000, already voted Best Game of the Show at the recent CES show, has been developed and coded by computer veteran and man with a mission, Jeff "Llamatron" Minter.

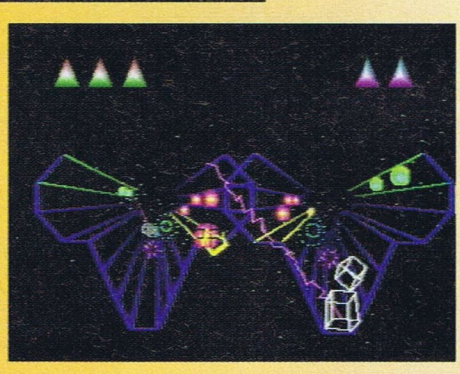
The update boasts two versions of the game – the original, and the new one with filled-in graphics, rave tunes, power-ups, bonus levels and, if anything like the original, ferocious addictiveness, making this one to watch.

According to the highly unbiased Darryl Still of Atari: "It will blow you away..." If Jeff Minter has had anything to do with it, I'm inclined to believe him.

Also in the pipeline is Battlezone 2000, another update, this time bringing the vector graphics tank battle shoot-'em-up into the 90s, where the player must move their armoured vehicle around the war zone blowing up the opposition and generally amassing a substantial amount of points.

Details of the enhancements to be made are very limited at the moment, but filled-in, Gouraud-shaded objects and sumptuous contouring landscapes are certainly well within reach of the Jaguar's capabilities.

The new version with filled graphics and deluxe gameplay



The old vector graphics version for the purists among you

JAGUAR P·R·E·V·I·E·W·S

Trevor McFur In The Crescent Galaxy
Atari

Release date: Out now

Crescent Galaxy is a sideways scrolling shoot-'em-up where you, as Trevor McFur, must traverse through 700 missions with your "sexy" sidekick Cutter to return planet Cosmolite to its citizens.

Featuring ray-traced baddies and detailed backgrounds coupled with sampled explosions and laser sounds, Trevor McFur should be available on grey import now.

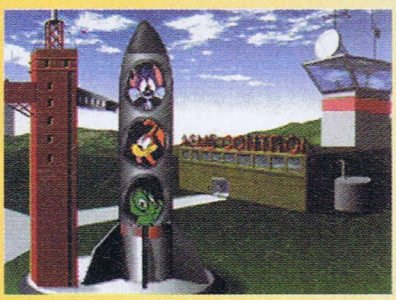
Tiny Toon Adventures
Atari

Release date: Imminent

The Tiny Toons gang have been very well received on the Nintendo and Sega consoles and now the Warner Bros cartoon characters have been lined up for their first outing on the Jaguar. Montana Max, the bad, rich and rather spoiled boy, has found a new toy – an Acme TiToonium-Gold Converter. The main problem is that the only place he can lay his hands on the TiToonium needed to run the machine is on the planet Aurica.

On his arrival there, ecological chaos ensues as the rich mineral is gradually sucked out and Buster Bunny, Babs Bunny and Plucky Duck – armed with an Acme Crazy Net – head off to stop Montana Max from destroying Aurica.

It's platform-based and like the other versions – on the Mega Drive and Super Nintendo – fast and frantic with great graphics and simple but absorbing gameplay.



A hugely popular platform game with punters and critics alike, Tiny Toons is being converted across to the Jaguar

Club Drive
Atari

Release date: Imminent

Sounding like one of the most interesting games to appear in the coming months, Club Drive gives you 70 square miles of San Francisco to race through and explore.

Go anywhere as you chase your opponent in a fast-paced game of tag through the craggy canyons and frontier towns of the Old West.

The title, featuring 3D-rendered graphics, gives you a chance to use your vehicle in a skateboard park and to drive a toy car through the neighbour's house, around coffee tables and under the television. Can it be possible – an original driving game? We'll have to wait and see.

Hosenose and Booger
Activision

Release date: December

For those of us who like our humour sick and twisted, here is a title from America whose plot sounds like something out of *Viz*.

Hosenose has a cold and he's managed, while sneezing, to suck his girlfriend up his nose and deep into his brain. Sounds like Microcosm on acid.

You take a dive into Hosenose's nasal passages to find the aforementioned beauty. Through various organs and orifices, you'll meet a veritably disgusting cast including the likes of Mickki Mewkus, Logjam Sam, Vicki Virus and Evil Dr Bile.

Described as an off-beat graphic adventure, this sounds like a cultish game if I've ever heard of one.

Syndicate
Bullfrog Productions

Release date: Not known

The makers of the superb Populous and Powermonger are to release Syndicate, one of last year's most engrossing, psychotic and amoral games.

Released on both the Amiga and PC, the Jaguar version will be as close to the latters as possible, with the excellent intro scenes and polished graphics included.

Mass destruction, a lethal assortment of weapons and a moral code that makes Debbie Does Dallas look cleaner than a Persil advert Syndicate is an absolute gaming classic...

Set in the future, you control a syndicate locked in battle with your other rivals, all wanting to claim the entire planet for your own power-hungry purposes.

Isometrically viewed, the player must control a party of up to four brainwashed agents who must systematically move from each country in the world, accomplishing various missions. These range from assassinations to retrieving top secret vital weaponry from the enemy labs.

Lethal armoury can be developed in your own labs to create flame throwers and missile launchers. The game's strongest point on other machines was the atmosphere of moving around a living, breathing city, creating mayhem – and the adrenalin-pumping gameplay.

If this all sounds a little subversive (a shrink could probably have a field day), never mind – it is great fun and from the sound of it, the Jaguar version will catch the same slice of the action too.

Theme Park
Bullfrog Productions

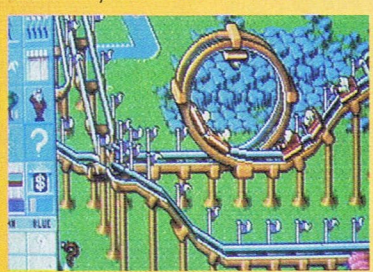
Release date: Not known

Soon to be released on other formats, this game puts you in control of a theme park that needs to be managed efficiently to compete with 40 other parks across the world.

Build roller-coasters, rides and food joints to appease the entertainment needs of your customers. These paying computer people have their own personalities – each can become bored, happy, sad or hungry depending on how well you've structured the park.

Seen by its makers as a comprehensive business simulator, the kind of complexity and thought that has gone into this title is amply illustrated by the use of salty chips at your burger joints – the more salt there is, the more thirsty the customers get and the more thirsty they are, the more drinks they'll buy and thus, the more money you'll make.

The graphics and sound are both up to a high, comical standard with bright, attractive colours and crisp samples. It will be some time before this potential blockbuster from one of the top games design houses in the world is released on the Jag, but it certainly looks like the wait will be worth it.



Design your theme park courtesy of Bullfrog (3DO version shown)

On the 3DO version, get on a ride and you're treated to a first person view of the action. Well have to wait and see if this is incorporated into the Jaguar conversion

Evolution: Dino Dudes
Imagitec

Release date: Out now

Psygnosis have no plans to convert their range of Lemmings titles to the Jag, so Evolution: Dino Dudes should help to cure those manic cravings that most Lemmings players seem to suffer from.

Dino Dudes refers to the Stone Age men at your mercy and control. These little thugs need to be kept alive for higher levels and at the same time skills used by these furry freaks need to be improved and practised to gain access to the later screens.

A puzzler for all Lemmings-style loving gamesters

Presented in clear and pleasing graphics, this looks set to be an addictive and challenging puzzler.

Raiden
Imagitec

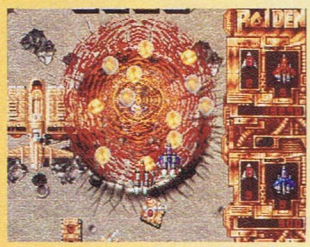
Release date: Out now

An arcade-perfect copy of the classic shoot-'em-up with graphics and sound to match the playability of the original.

Presented as vertically scrolling shoot-'em-up over eight areas, the mission is simply to fly and blow the hell out of everything.

Your ship is fortunately loaded with effective lasers as well as three mega bombs that can be dropped when the going gets too tough.

If you liked the arcade version then there is no reason why you shouldn't like this.



An arcade-perfect conversion of the riginal coin-op machine

Bubsy – Claws Encounter of the Furred Kind
Imagitec

Release date: Not known

One of the most marketed games in existence when it made its debut across the console formats last year, this fast-paced intended Sonic-beating platformer received mixed reviews due to several game flaws.

The good news for any prospective Jaguar owners is that Imagitec intend to rectify the problems and turn Bubsy into a top ranking platform game with, in the words of their Martin Hooley, "bells and whistles on".

Bubsy, as seen on the Super Nintendo, in a fast platform-based title

Apparently, the Woolies have taken all of the Earth's yarn and Bubsy Bobcat has to tear round, pouncing, gliding, jumping and running through various landscapes to grab it all back from the clutches of the enemy while picking up various power-ups.

A promising title that could give the Jaguar a real run for the platforming crown.

Freelancer 2120
Imagitec

Release date: Not known

As well as cartridge games lining up to be released, CD-based titles are also being developed for the Jaguar's CD-ROM drive. Freelancer 2120 has been described as Doom meets Aliens where, like Aliens vs Predator, all in-game graphics are digitised and step-animated. Coupled with a fast 3D environment and 256 colours (640 x 400), Freelancer sounds as if it's going to be huge.

Just as a note, Tobias Richter has done the intro sequence for the game. For those not familiar with his work, Richter is a highly respected 3D animator whose ray-traced work makes regular appearances on Amiga computer screens worldwide.

Dungeon Depths
Midnite Software

Release date: Not known

Long ago in ancient times, man had the snobbish habit of building huge castles to close himself off from the less worthy beings of the earth.

Beneath these monoliths of imperialism, he built miles and miles of dungeons to imprison you, the player, and your repressed minions.

The aim is to make your way to the top and take on the "surface dwellers" to win the day. With a first person view, the main quality that stands out is the opportunity to take on the role of either good or bad guy in this texture-mapped adventure.

Cybermorph
Attention to Detail

Release date: Out now

The first game to be released on the 64-bit console, Cybermorph needed to be special to show off the machine's capabilities. And while there's no doubt that it can be pushed further, this title is a great start for the Jaguar.

Featuring Gouraud shading that produces a 3D undulating alien landscape, the player's mission is to visit 52 differing planets, killing baddies and collecting all the pods in true Defender style from each location with your craft.

This is a great game with adrenalising action and some excellent 16-bit sound samples from your advisor, Skylar, who regularly informs you of the current state of play.

Released with the initial Jaguars, this game has already carved itself out quite a reputation

Brutal Sports Football
Beyond/ Telegames

Release date: July

Released on the Amiga a few months back to solid reviews, London-based company Teque are converting their bloodthirsty American football game over to the Atari platform. It is to be distributed by Telegames.

Set in the future, a team of scientists have found a hole in the space/time fabric and within this rather dark abyss discover races of mutants who have the ability to grow back limbs and heads if ripped off.

These creatures are ideal for the old-fashioned multiple bone-breaking sport of American football. The game is played with two teams on a pitch where anything goes – power-ups can be collected, swords wielded and heads decapitated.

If, perchance, a draw should ensue, then a quick carnage session will result in the last surviving member winning for his team.

The Jaguar version will incorporate graphical enhancements, quicker gameplay and scrolling smoother than the Amiga original.

Ultra-violence and mutant players meet head-on to produce Brutal Football. Amiga

Lester the Unlikely
DTMC

Release date: Not known

Most critics and punters will agree that despite graphical and sonic improvements, platform games very rarely boast original features. But this looks set to change.

Enter Lester, an insecure, spotty geek with no friends and no life whose coming of age story is played out in this American platformer. Starting as a bag of nerves, the player must guide Lester through various stages, improving his confidence.

In computer terms, this translates into the lead character becoming more controllable and easier to handle – he'll be able to jump higher, run faster and respond more quickly.

This all sounds like involving stuff and one to keep an out for in the future if you fancy a leap-'em-up with a fresh coat of paint.

Aliens vs Predator
Rebellion Software

Release date: April

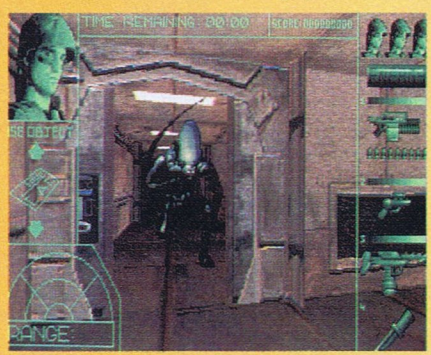
Regarded by many as a true software flagship for the Jaguar to match the likes of Starwing on SNES and Sonic on the Mega Drive, and possessing the same pulling power, this is shaping up to be the game to lay your hands on when it's released.

Viewed from the first person, the player takes on the role of either Alien, Predator or a colonial marine. Each different "species" has a different mission within the game.

Set on a space station made up of seven levels, you start on the central floor and either make your way up to the predator ship docked at the top or down to the lowest level where the alien mothership lies.

Taking on the role of marine, the objective is to rescue all the stranded troops and get rid of all aliens and predators. Playing either of the two xenomorphs requires the destruction of the other's ship and collecting as many colonial marine corpses as possible. At present, the title is looking like the game to have for your Jaguar, with 15 frames per second update and fully digitised graphics of objects and scenery to boot.

It's also rumoured that this will be the game to be bundled with the Jaguar on its release in the UK – watch this space.



Look at the picture hard – imagine it moving at 15 frames a second and you've got a game worth buying a Jag for

Robinson's Requiem
Simarils

Release date: Not known

Described as the ultimate test of human endurance in an alien world, the interestingly titled Robinson's Requiem from French company Simarils, puts you in the role of agent Robinson sent to a mysterious and unknown planet on a renaissance mission.

Much to your horror, you find out that the entire project is a trap set by your own government who have decided that they're better off without you. Your ship is, in fact, heading for a huge prison so without a second thought, you leap from the auto-piloted craft into the densely covered jungle below.

Featuring over three square miles of land and ten differing kinds of scenery, the aim of the game is to escape and avoid the hostile entities on the planet.

Viewed in the first person perspective (by now, you've probably sussed that this is one of the machine's strong points), this looks good on the ST and therefore should look incredible on the Jaguar.

But at present the game programming hasn't even begun, so expect to see it at some point next year.

Bio-spfear
ASG Technologies Inc

Release date: Not known

Despite recent claims from the head of Commodore that the Jaguar's CD drive doesn't exist, plenty of companies seem to have started developing CD titles for the machine.

Bio-spfear begins with the earth's ecology ruined and humanity retreated into huge biospheres. Viewed in a first-person, texture-mapped perspective, the player must set about the modest task of stopping the pollution once and for all.

Commando
Microids

Release date: Not known

Commando is another first-person perspective title placing you in the role of an officer in charge of a team of crack commandos. Set ambushes, destroy key structures, rescue personnel in jungle settings and ultimately win the day for your team.

Evidence
Microids

Release date: Not known

A CD-based title that puts the player in the role of a young reporter wrongly charged with murder. The idea is to escape from jail and find the party responsible for putting you behind bars.

Using full-motion video and digital sound effects, this is another attempt at the interactive movie.

- Virgin are working on a CD-based title and have three other games in the pipeline. Doug Johns, PR man, is quick to add that these titles are open to alteration and when some or all do appear, it won't be until next year.

- Attention to Detail are working on the sequel to Cybermorph, Battlemorph, an air and land-based program.

- They're also working on a movie-like feel conversion of Blue Lightning, the helicopter combat game from the Lynx.

- MicroProse are developing Gunship 2000.

- Ocean are very enthusiastic and are going to produce for the console at some stage.

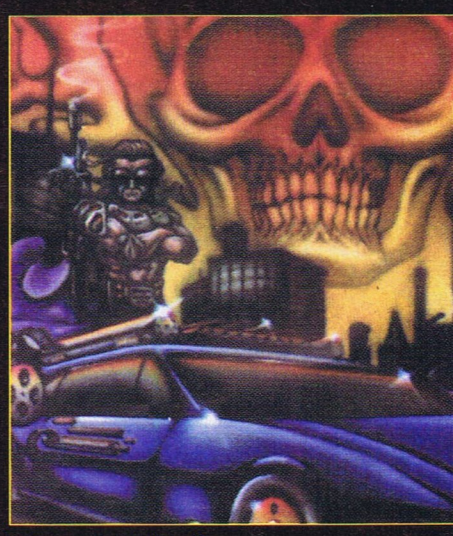
- Ubisoft are considering releasing four games, one which might include Pro Tennis, but they're playing their cards close to the chest.

- Gremlin Graphics have given the thumbs-up to the Jaguar and are hopefully going to produce Zool 2, a superior platformer featuring Zooz, a female Ninja as well as the original character – don't hold your breath though, as any releases will be a long way off.

- Soccer Kid is a highly acclaimed Amiga title from Krisalis involving a young lad who uses his football to see off the enemy, gain access to higher platforms and other assorted footy goodies. It's yet to be started but one worth waiting for.

- European Soccer Challenge, an Atari Lynx footy game, is being given the Midas touch delivering an expanded season and playoff format, 170 teams and complete team/ individual stats.

Players also have their own personalities and performance capabilities and it's possible to trade with other teams as well. Viewed from an elevated side angle, football fans seem to be in for a solid match on the Jag.



Hammer your car into the opponent in Battlewheels

Also coming soon...

Soccer Kid is a game all about ball control and finding the pieces of the World Cup that have been stolen by aliens (as seen on the Amiga)

Car racing game Chequered Flag II is shaping up to be a Virtua Racing beater – we'll just have to wait and see

● Ultimate Brain Games is for the more cerebral among us, and comes with chess, checkers and backgammon on one cartridge. Special features include a specific game set-up for computer solution and digitised graphics to move these age-old games into the 90s.

● Battlewheels is set in year 2021AD. Humankind has turned to increasingly dangerous spectator sports for entertainment. Car racing, with the added bonus of missiles, flame-throwers and machine guns, seems to have caught the population's imagination, so in you step with up to eight other players to blow the hell out of each other on the quest for glory.

● Ultra Vortex is a beat-'em-up featuring ten fighters, each intent on beating the Vortex Guardian who has been dominating mankind for thousands of years; it's an answer to the Streetfighter II legend on other consoles. Through the use of street fighting and martial arts skills the player must destroy the opponents and kill the Guardian to reign supreme.

● Software firm 3D Games have gone for the strategic market with an as yet untitled game based around the Clinton administration. Using various world issues, the player is put in situations where he must find solutions and increase their popularity. Released later this year.

● Rainbow Warrior is a more action-based program, also from 3D Games, and also out later this year. You take on the role of a warrior trying to save the Earth's climate by combating the pollution in forests, seas and other terrains.

● Following on from Rebellion's AVP is Dungeon, a role-playing game seen in the first person. The basic premise is that the ancient evil one, Centurion Gargath, has unfortunately manifested himself on the human plane with the intent of consuming any souls in the nearby vicinity. Your task is to enter the dungeons where he lives and defeat him. Looking like a hyped-up version of Ultima's Underworld, Dungeon features 24-bit colour and numerous 3D effects to make the jaw drop firmly to the floor. Gameplay is action oriented with puzzles sprinkled into the arena for extra lasting appeal.

● Reckoned by some as Virtua Racing for the Jaguar, Rebellion's Chequered Flag II is a polygon-based racer that's well on the way to completion. Featuring depth-cued graphics, varying weather and different choices for viewing perspectives, CFII is looking decidedly classy.

● And Rebellion's latest under-wraps project is a Bladerunner-esque release with the working title Hammer Head. Set in a cyberpunk Utopian city of the future, it offers the player a chance to take part in a flight simulation in a neon-choked and fog-smothered landscape.

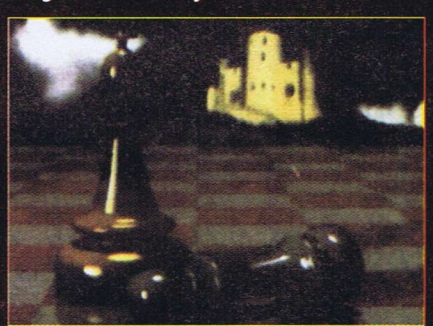
● Midnite software have an as-yet untitled strategy-based new game in the pipeline. For those of you who have seen *Patriot Games* starring Harrison Ford, one of the best remembered scenes is in the satellite room where Ford watches a terrorist camp being wiped out by paratroopers. Viewed from above (the satellite's position), individual troops, buildings and other objects could be clearly picked out.

This style of "play" is to be used on this forthcoming Jaguar release which will feature photo-realistic graphics to generate the suspenseful atmosphere needed as the player watches raids unfold.

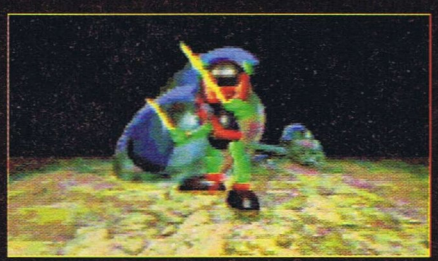
● Also making its way to the Jag – from DTMC – is an untitled game which centres around miniature golf, or more accurately what happens to the ball once it enters a hole. Apparently, under every windmill, lighthouse and other assorted oddity found on these courses is an underworld of obstacles and other challenges.

● Another DTMC forthcomer is a multi-player California Games-style title which will feature rock climbing, among other sporting events.

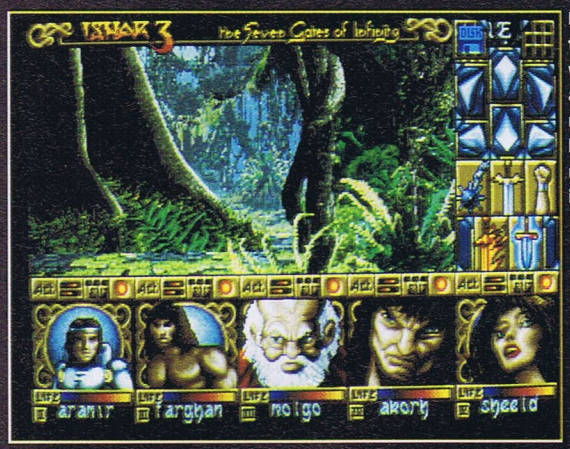
For all soccer addicts, that classic ball game is on the way



After wasting aliens in AVP, why not settle down and relax with a nice game of chess, checkers or backgammon?



Seen here on the Amiga, Zool 2 has received high accolades and there's even an arcade machine just released featuring the little ninja



In Ishar 3 you'll find your team wondering around a wide range of locations, one moment you're in a swamp...

..the next, walking through the cobbled streets of a town

ISHAR 3

It's nearly time to sharpen your kilt, tighten your shield and zip up your sword Simon Clays, as takes a look at how the third in the Ishar series is progressing

Over the last two years Silmarils have risen to a position of remarkably high stature in the arcane world of the role-playing genre. Based just outside Paris, Silmarils have become one of the leading developers of high quality Tolkien-esque style adventures.

Much of the success of the company is down to the Ishar titles, with their first-person 3D graphics and incredible depth and attention to detail.

Their aim has always been to create state-of-the-art software that, like its inspiration, is rich in dream-like images, colour, sound and plot.

Following the fantastic success across Europe of Ishar's 1 and 2, the French outfit are close to completion on the third title in the saga.

ENCOUNTERS

If you were an avid player of the previous encounters in the land of Kendoria, then you're in for a treat when Ishar 3 is released, as it includes a whole host of improvements.

The plot will once more send you back to Kendoria and the kingdom of Ishar. If you've played either of the other Ishar titles then you'll be more than familiar with the geography and the inhabitants of Ishar.

In Ishar 1, Legend of the Fortress, the peace and prosperity was threatened by Krogh, a rich and powerful Overlord who built the impenetrable fortress called Ishar. It was from the fortress that Krogh launched his bid to control the seven islands that go to make up the kingdom of Kendoria.

Following the defeat of Krogh, the fortress of Ishar became a centre for cultural and intellectual development, casting a radiance and wealth and knowledge to the outermost corners of the kingdom.

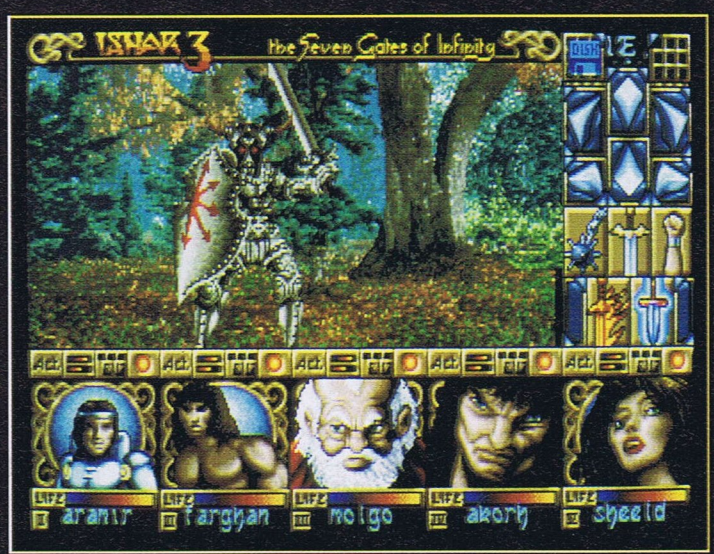
But, in Ishar 2, a new threat emerged to threaten the idyllic tranquility of Kendoria. Shandar, an evil wizard and a demonic deity all rolled into one, planned to use addictive mind-controlling drugs to enslave the population of Kendoria and take control of the Fortress of Ishar.

Those of you who played Ishar 2 through to its conclusion will remember this particularly evil, nasty piece of work, and also recall that to achieve total success you had to destroy him.

The bad news is that despite your efforts in Ishar 2, Shandar is back. Shandar defied nature by securing a policy for the unlikely event of his destruction. He achieved this in the shape of a spell which would enable his energy and consciousness to survive.

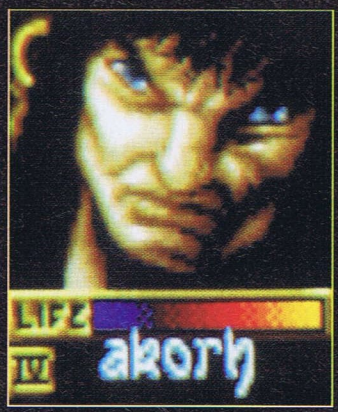
So the evil wizard is alive, kicking and still filled with megalomaniac-style ideas to take control of the region. In Ishar 3 he finds a new physical form which is more destructive and malevolent to oppose the forces of goodness.

Being the prudent type of psychopathic would-be dictator, Shandar takes no chances and decides to occupy the biggest, nastiest creature ever to roam the mortal



Ishar 3 is set to include some ominous foes

In Ishar 3 shopping can be done in one conveniently sited centre

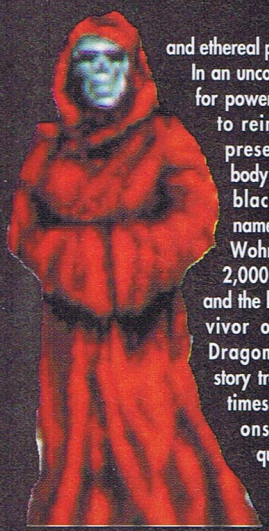


and map during play. So, rather than traipsing around swamps all day and night, you might find your party researching some arcane myth in a library.

Something new to this new addition to the Ishar trilogy will be animated film sequences of events, which will add a whole extra dimension of reality and atmosphere to the title.

With all these and more features included in Ishar 3, the game looks as though it could well become a benchmark adventure title, and set a new standard in first-person role-play gaming on the Amiga.

Silmarils have always had a reputation for producing intelligent and visually stunning games. While we've yet to see the finished product, both the screenshots and early demos look set to give role players a very large, very involving dip into the world of Tolkien. But remember, too many jaunts into this fantasy world could become Hobbit-forming...



and ethereal plains.

In an uncontrollable lust for power, he chooses to reincarnate his presence in the body of a gigantic black dragon, named Wohratax. Wohratax is over 2,000 years older, and the last living survivor of the Black Dragon race. His story travels back to times when dragons were frequently used to fight battles.

In one particularly desperate onslaught between the White Knights and the evil Powers of Chaos, all of the Black Dragon race was wiped out. Only Wohratax survived the battle and as a reward for his courage and bravery, he was created Lord of Sith and made immortal.

To capture this great prize, Shandar must perform the reincarnation ceremony during the planetary conjunction of the two moons, the sun and the planet Ishar.

This is where you're set to come into the action. Taking the role of a party of adventurers, you must destroy the dragon before Shandar can perform the ritual which will transform him into the most powerful entity on the face of the earth. According to Daze Marketing who handle the UK promotional activities of Silmarils, the key to success in Ishar 3 is time. Though you will not directly race against the clock, you'll have to travel through various time portals which will lead you to varying historical zones in the development of Ishar.

In order to achieve any significant progress you'll have to make sure your team appear at all the salient points in time, and affect history in the correct manner.

The main overriding feeling you're left with after Ishars 1 and 2 is the attention to detail, accuracy and distinctive look that Silmarils games have.

Fans of, or indeed newcomers to, the Ishar titles will be pleased to hear that Silmarils are keen to maintain that image, and are packing the game full of enhancements to add even more realism.

While it's too early to determine exactly what the final product will contain, this progressive French software company are boasting some fairly impressive additions.

One of the areas that they're paying extra attention to is character generation and selection. In Ishar 3 you'll be able to select from over a 100 different characters and assign your party with a whole host of personality traits.

Also, like in many games of this genre, you'll be able to re-load teams you've used in Ishars 1 and 2, giving your adventures an extra dimension of realism and a history that you yourself are familiar with.

VOCABULARY

As well as the rich array of weapons your dwarves and barbarians can yield, there'll be a wide vocabulary of spells to cast, conjure and recite at your enemies.

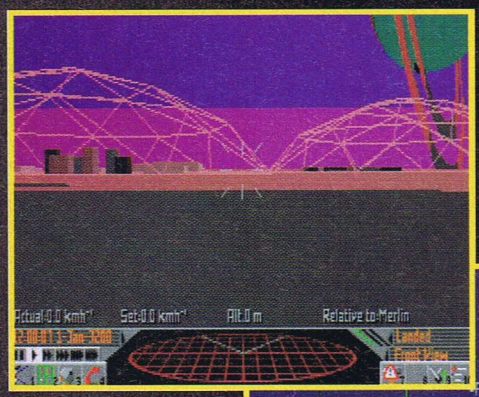
While your not slaying and hacking your way around some forest or wilderness, there's a whole host of indoor locations to hang your sword up in. These will vary from dank caverns through to brightly lit inns and taverns.

There are also a large number of other buildings which you'll be able to explore

Silmarils

Here in an eerie underworld, you'll encounter strange gaunt figures in feminine garb

The point-and-click icon controll will continue to make movement and combat light work



Here's your starter for ten... the ground view of dome city!

The star map will help you navigate between star systems

cheat mode

Simon Clays and Tina Hackett splash down in the escape capsule with a few hints and tips for budding Frontier astronauts

FRONTIER

System Map

It appears that many of you are experiencing the rather annoying problem of crashing into planets, for no obvious reason – so let's have a look at ways around this.

When you target a location, be very careful to make sure that you're very specific. It's not good enough to just target a planet, as this will only render you in the general area.

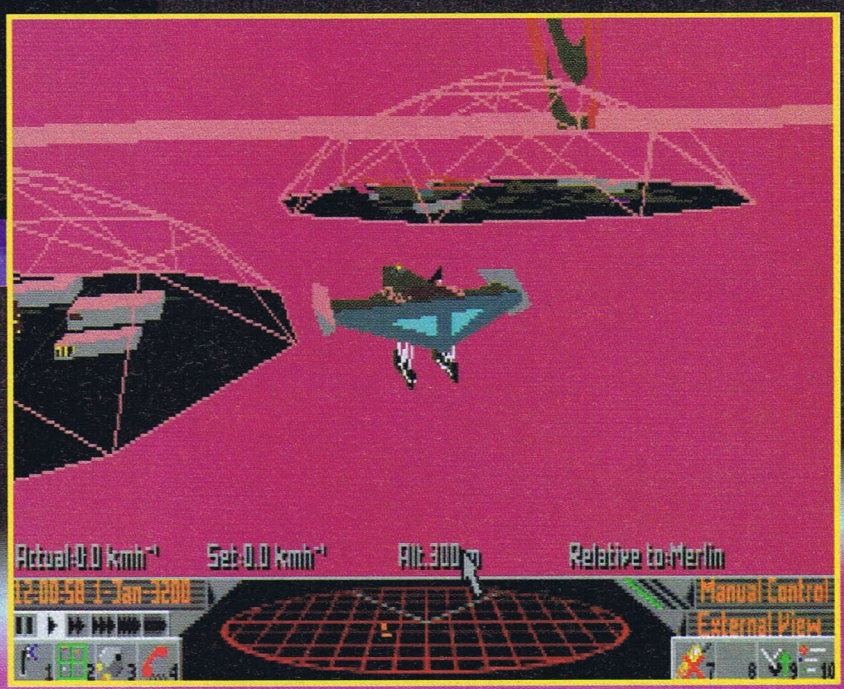
The major problem with this is that the autopilot facility will shut off automatically, leaving you to crash into the planet's surface.

Double clicking on the zoom-in icon sends you immediately to the closest view of your destination, and should allow you to select very specifically.

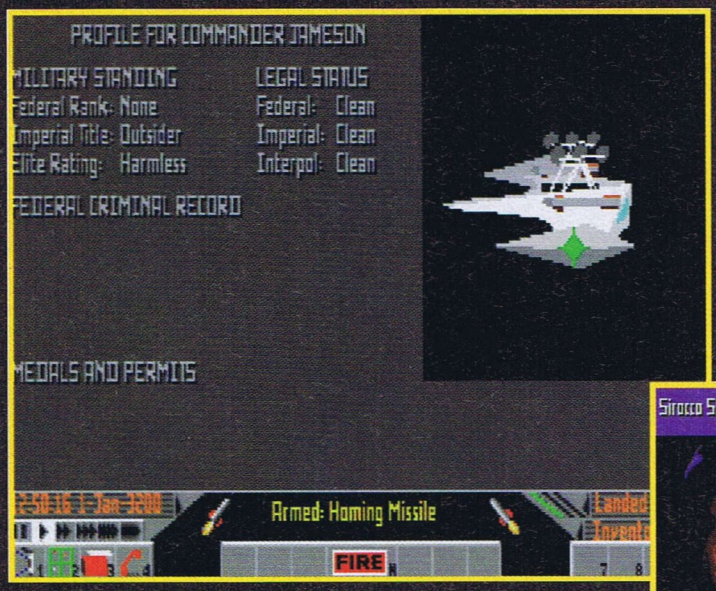
Some people are experiencing problems with getting the place names to appear on the screen. Click onto one that is visible and the rest should appear.

If this gives you no joy then experiment with the zoom in and out icons. After this try rotating the system with the mouse or time

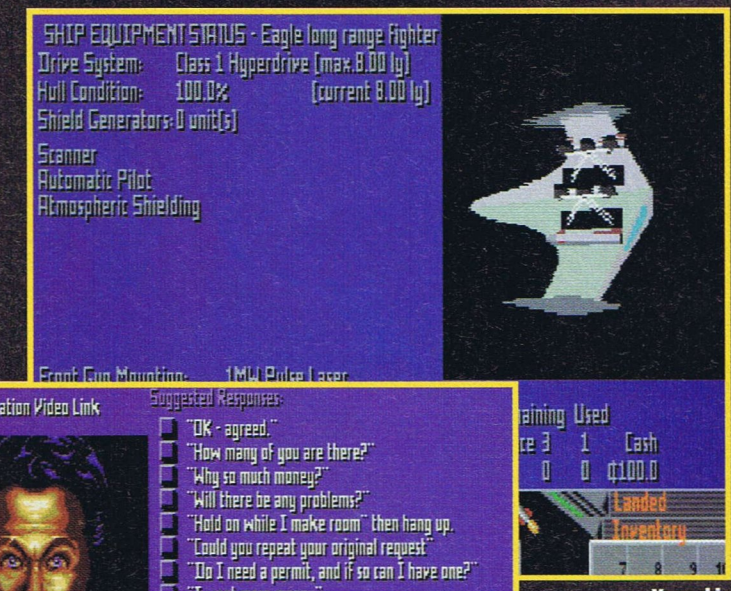
Trading in the Galaxy has come a long way since the original Elite



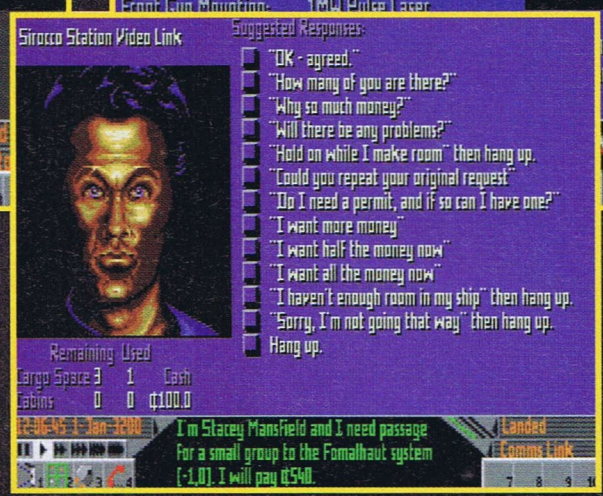
View the surfaces of the planets. On some planets with no atmosphere cities are enclosed within domes



Check how well you're doing in the game through the profile screen



Your ship equipment status screen



A fair bit of money can be made ferrying passengers across systems

controls. Remember to have the locations name on-screen when you select the target destination.

Clicking on the location's unnamed "dot" sends the autopilot into a state of mental instability, and it flies off in any direction for a couple of thousand parsecs.

Galactic map

This is another area in which players appear to be having difficulties, especially in highlighting the systems they want to examine.

To get around this, never rotate the map with the mouse when you first examine the system because it gives a false impression of the distance between systems.

Use patience and negotiate the maps using the arrow keys and the zoom icon. This will ensure that the map appears on a flat plane, is a whole lot more legible and more user-friendly.

This way you can refer to specific locations first and then pinpoint the precise system you are after. It is also very useful to turn off the identification text, the distance lines and the grid.

Once your target destination has been located, make use of the trading route display. This gives a better idea of exactly how far away systems are, and the best possible route to take.

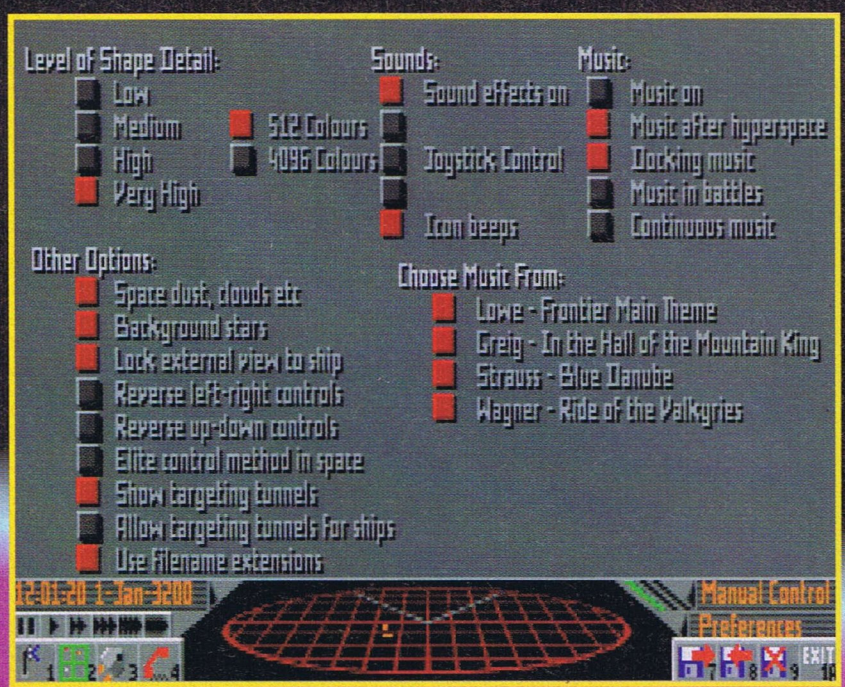
In many instances the planet you wish to visit appears to be the next closest destination, but actually is up to ten jumps away.

The best way to map out a route is to use the trade route display and work your way along the trail from your starting point.

Alternatively, an effective method of quick travel is to sell all of your cargo, missiles and equipment and invest in enough fuel to allow you to jump on as soon as you reach the next system.

Trading

Trading is all-important so find two good trading posts to go between to initially gener-



Through the configuration screen you can set the detail level to speed up the game if things are running a little slowly

Take on missions to improve your military rating and make pots of money

cheat mode

Here we have your bog standard front view

Check the planet's economies – their major and minor exports – and plan your strategy

ate some capital. Use the data on economy (found by pressing F7) to see if there are any opposite economies you can make use of.

One trading strategy you could try is this: From the Ross 154 bulletin board accept two packages that require passage to Formalhaut – the first Federation military mission and the last bulletin mission.

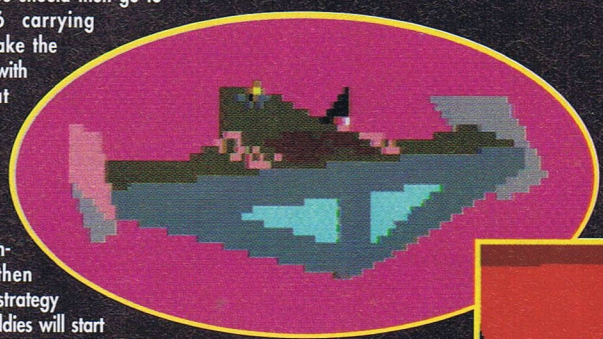
Now buy two tonnes of hydrogen fuel and fly to Lacaille 8760, and then directly to Formalhaut. You should then go to Luyten 789-6 carrying liquor, and make the return journey with robots. Repeat this as often as you want.

The route to Luyten 789-6 is hostile, but if you fancy plenty of combat then this is a good strategy to try. Most baddies will start to fire once they're within four kilometres and are at their most dangerous at two kilometres away.

When they get this close you may like to try pausing the game, switching to external view and launching missiles – most ships will speed off into the distance once they sense a missile.

If a missile should home in on you play it safe. As soon as you are warned of a missile, pause the game, turn on the identifier, switch to external view, and find the missile targeting it with your mouse.

Change to rear view and manual control, now unpause the game. You're now looking out of the back; move the ship so that you can see the missile, while increasing speed.



You can see how close the missile is – because you've targeted it – and by keeping it in the middle of your rear view you can outrun it until it expires.

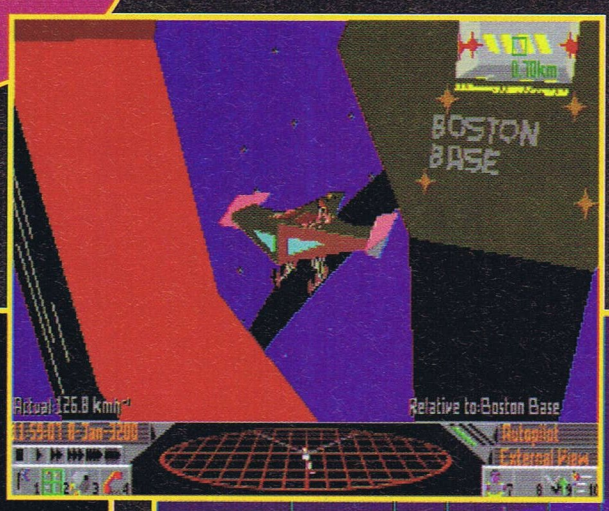
The slight snag with this, though, is that any damage you've done to enemy shields has time to regenerate.

And finally...

A bit of cheating along the way can also help! Save the game before leaving your current location, when arriving at your next location check the bulletin board for traders looking for specific stock.

Load your previously saved game after making sure you invest in lots of the particular stock they wanted.

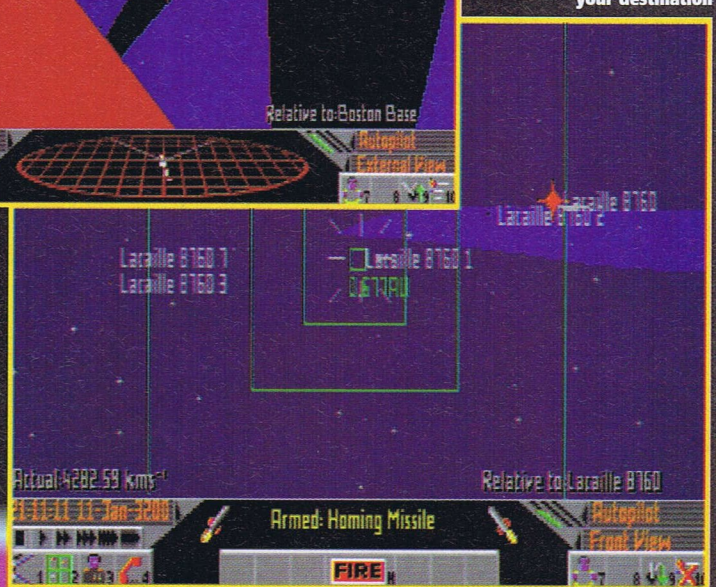
It's also possible to go to a system where this stock is a major export, thus buying it dirt cheap – then fly back to where you first saw the advert. The computer thinks it's the first time you've been there and the advert still appears.



Take care when landing

Switching on the targeting tunnel feature will tell you how far you are travelling towards your destination

This is your information screen on local systems



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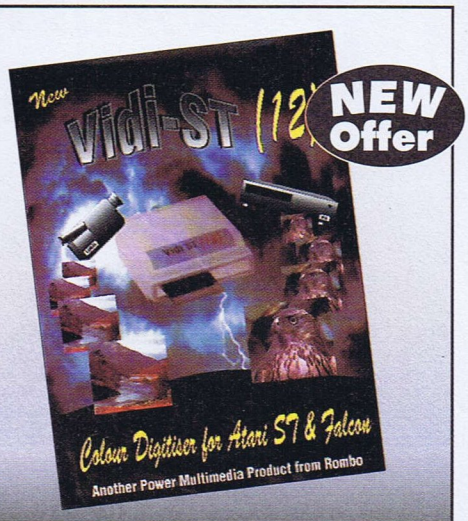

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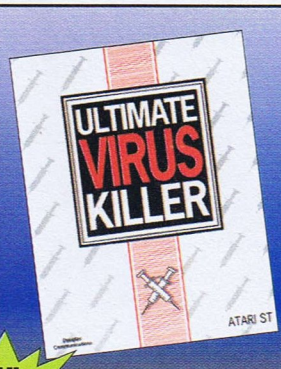

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Videomaster features a sound sampler as part of the hardware, though the software can be used with external sound samplers. This is supported by a full feature sound recording and editing program within the videomaster software. The Videomaster system also features a video sequencer.

The complete package contains the Videomaster video digitising and sound sampling hardware unit, TRI-Colour filters for colour camera use, comprehensive user guide and full system software.

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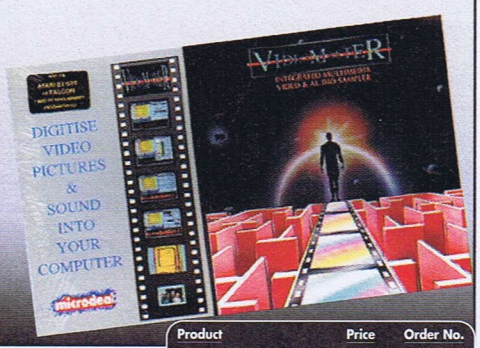

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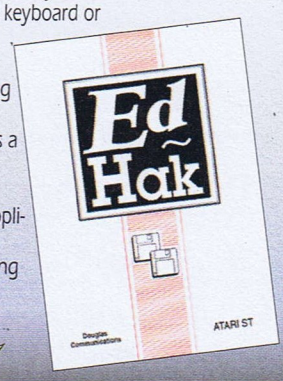

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HARDWARE – The 16 bit sampling unit plugs into the cartridge port of the ST. Audio connections to and from the sampler are provided via standard Phono connectors. An Input volume control is also provided.

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.

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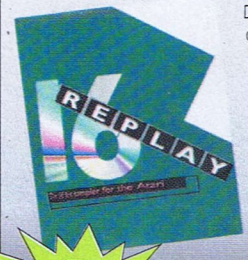

DRUMBEAT – A 4 voice polyphonic Drum machine with full MIDI control. Up to 30 different samples can be loaded into a kit at once and 50 patterns can be programmed in either realtime or steptime. Samples can be up to 1Mb in length each.

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The system runs on any ST or STE with 502K (1Mb min is recommended), and comes complete with hardware, software and comprehensive manual.

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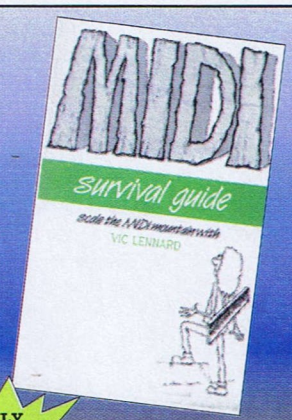

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Midi thru

Ian Waugh looks at a typical Midi problem, reviews some wonderful utilities and rounds up the rest of the news in the ST music world

As we speed along the hi-tech music highway, it's easy to forget that some people are just getting into the driving seat. Peter Evans from Colchester has written to say he is having problems with Midi Thru and he wants to know how, why and when he should switch it on in his sequencer. His problems range from weird sounds coming from his synth to no sound at all!

In a sequencer, Midi Thru will usually transmit the signal arriving at the ST's Midi In socket back through the Midi Out socket. Most sequencers can also rechannel this – that is, send it out on a different Midi channel to the one it arrived on.

So for example, if you have a number of tracks each set to a different Midi channel and you highlight the track set to channel four, the program would transmit incoming data out on channel four.

This lets you leave your keyboard transmission channel set to one, for example, and yet still access the sounds in a multi-timbral module simply by switching tracks in your sequencer.

If your keyboard is also being used for playback, you should switch Local Control to Off. This disconnects the keyboard from its sound generators. If you don't do this you'll hear double notes – the ones you are physically playing and the ones being echoed from the computer. This is probably what is causing Peter's weird notes.

PD RAMPAGE

I've been troughing the boards (bulletin boards, that is) and ransacking PD libraries again and discovered some pretty interesting stuff. It's nice to know that software authors are still writing music programs and utilities.

One of the most interesting is Psycho. Nothing to do with Norman Bates, more like Andy Warhol meets Jeff Minter. Remember Colour Space? Well Psycho is a bit like that. It runs in lo-res.

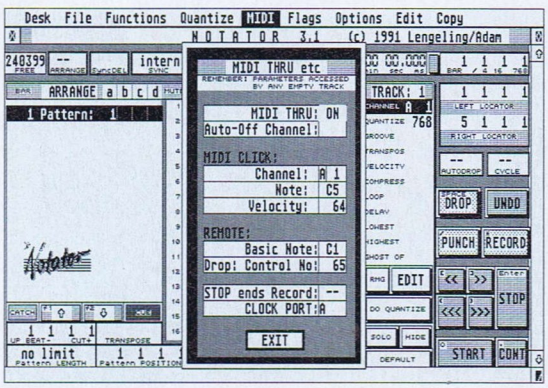
There are 16 Midi channels and as the ST has 16 colours, Psycho colour-modulates ST graphics using Midi messages. In Midi Clock mode the colours cycle on receipt of Midi Clock messages.

In Channel mode, the colours respond to data on each of the 16 Midi channels. A range of 16 notes controls the colours in Note mode and in Velocity mode the colours respond to velocity data.

Psycho responds to Midi commands arriving at the ST's In socket. Alas, you can't play a file on your ST sequencer and see the pics. But it's all good, clean, colourful fun.

You can load any standard Neochrome and lo-res Degas pictures into Psycho and it can hold four images in memory at one time. You can switch between them with program change numbers. It's PD but a fiver to the author – who is a UK resident, believe it or not – will get you Psycho Movie with additional features such as 16-picture display capacity and additional modulations.

I found Psycho on Floppyshop's MID4147 disk. On the same disk is a fascinating program called Midi Chord which runs in mono or



Notator has a Midi Thru function which you can switch on or off. The Auto-Off channel will prevent the transmission of any data arriving on a certain channel. This can be useful if your keyboard doesn't have Local Off

Three of the best to solve your common problems

Here are three little utilities which solve problems which many people probably have. Well at least the authors had them. Local Control and Panic will run in any resolution as programs or desk accessories.

Local Control quite simply sends the necessary messages to a keyboard to switch Local Control Off – quite appropriate considering Peter Evans' problem.

Several keyboards such as the Casio CZ101/1000 range and Yamaha's DX7 respond to Local Off but have no front panel control for it, and as Peter found, not many sequencers give you a Local Off button. Local Control fixes all of this!

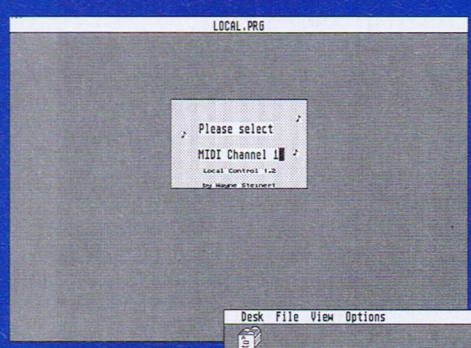
Panic simply transmits an All Notes Off message. A useful utility for a sequencer which doesn't have a panic button.

Voice Select is a DA which lets you transmit a program change number on any Midi channel. Rather than give you all 128 program change numbers to click on, it adopts a bank and preset approach.

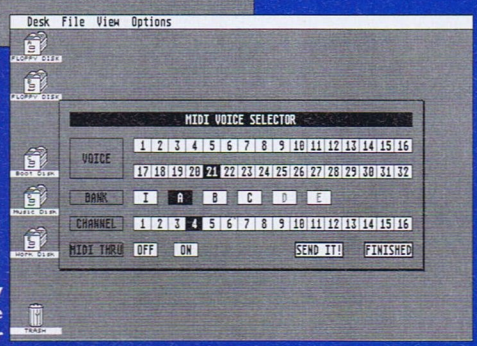
It's fine for instruments which have banks and presets, otherwise you'll have to calculate bank offset numbers – useful for GM sound modules and the like which can only be controlled via Midi.

All three programs are on Floppyshop's disk MID3352. I'll keep my ear to the ground and my modem to the wall and report on any more interesting PD goodies I discover. Likewise, if you have a PD favourite, send it along so we can all share it.

● ***You can contact Floppyshop at 45 Provost Graham Avenue, Hazlehead, Aberdeen AB1 8HB. Tel: 0224 312756.***

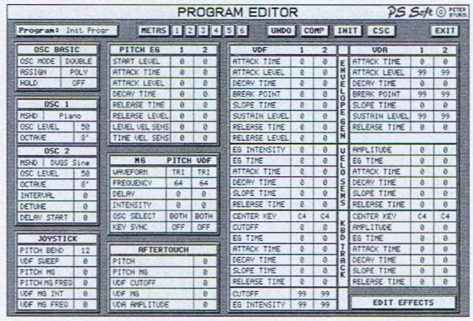


Programs don't come much simpler than Local Control

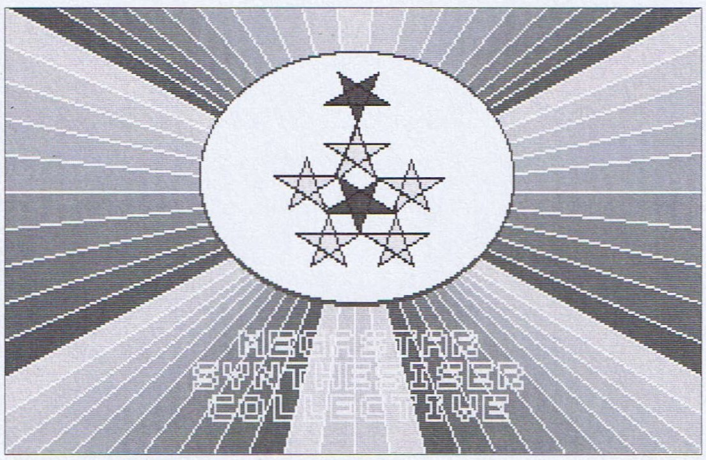


An easy peasy Midi voice selector

and thru



The PS Soft M1 Workstation is a must for M1 users



Sixteen colours on the ST, 16 Midi channels – now why didn't someone think of this before?

You need a Spectra to get past the loading screen...

colour. It looks great but the documents are in German and its *modus operandi* didn't miraculously reveal itself in response to my usual subtle clicks on anything remotely like a button.

LIMITED

It's actually a combination of a sequencer and an arranger with lots and lots of windows and edit functions. It's a shareware program with a limited capacity of 10,000 notes, but DM60 will increase that to 224,066 notes.

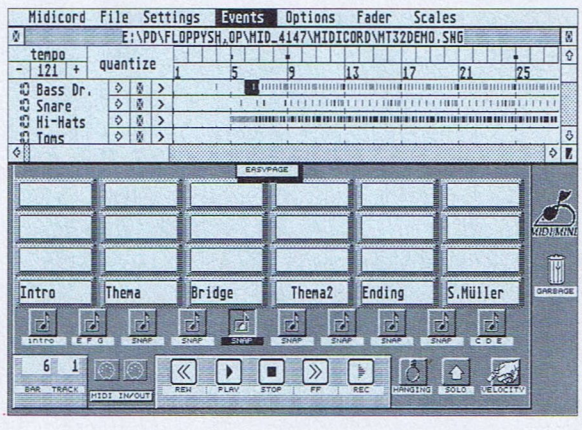
Another serious program is the PS Soft M1 Workstation, an editor for the ever-popular Korg M1 synth. It will run on an ST/E with 1Mb RAM and a mono monitor.

It's a most impressive piece of software, well up to commercial standards. There are program and combination managers and editors, a drum editor and a mixer. The Computer Sound Creation feature can generate both Programs and Combis and has several user-definable options.

It also boasts a 32-track sequencer and although it's not very sophisticated, it will work with any Midi instrument, not just the M1. It can load Standard Midi files, too. Other facilities include automatic saving, disk format and file deletion.

Registration, some DM60, will bring you the instructions – there are no on-disk documents at all. However, the competent M1 user should be able to fathom it out. Highly recommended. This is another from Floppyshop on disk MID3354M.

You don't have a Kawai Spectra, do you? You do! Well check out Spectra, an editor/bank manager for it. You'll need 1Mb RAM and a mono monitor. Yet another from Floppyshop on disk MID3352 – but watch out the documents are in Dutch.



Read the screen carefully and you'll see that this is the Easy page...

Music update

- Lots of news this month from Hands On Midi Software, purveyors of Midi files extraordinaire. Some new disks to start. Rockbeats (£9.95) contains over 975 drum patterns and fills which you can drop into your own songs. Groove Machine (£9.95) contains sets of grooves for you to jam along to.

- The Roland GS System Exclusive Utility Disk (£9.95) is a collection of 158 small Midi files of popular GS edits which you can load and use – saves messing around with all those 'orrible SysEx numbers. Topics include chorus and reverb levels and types, tuning, partial reserves, global panning and volumes and GM and GS initialisation. Could save a lot of work. We'll be looking at some of these disks over the next few months.

- Hands On have also set up a bulletin board which will give pre-registered users immediate access to the company's vast range of Midi files. It contains a demo of every file so you can try before you buy and, due to savings in p&p, the files have been further reduced to £3.50 each. The BBS is on-line 24 hours a day on 0705 78400.

- Hands On have also moved, for the third time in as many years, to The Software Suite, 11 Warfield Avenue, Waterlooville PO7 7JN. Tel: 0705 783100, Fax: 0705 783200.

- This is the final call for MEMS – the Midi and Electronic Music Show – which takes place from April 22-24 at the Wembley Conference and Exhibition Centre in London. You can expect to see the latest hi-tech musical instruments and software direct from launches at the Frankfurt Music Fair and the American NAMM show. As of writing the exhibitor list numbers over 80.

  There are some 27 seminars already scheduled – everything from creating dance music to digital synthesis – and there are Ask the Experts Question & Answer sessions.

  Last year's do was undoubtedly the premier UK event for anyone interested in Midi and hi-tech gear. Admission is £8, or £5 if you book in advance and entry to the advice centres and seminars are free. More from Westminster Exhibitions on 0222 512128.

- Fractal Music Composer has been heavily updated and includes a vast range of new functions and features. The price is likely to be around £89 with a most substantial discount for anyone wanting to upgrade from v1. We'll be looking at this soon but for more information or a demo disk contact Fractal Music on 071-272 7482.

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GEM – View 3 – The Ultimate Graphic Conversion Utility

After lengthy correspondence with Dieter Fiebelkorn, author of GEM-View, Floppyshop are now the official UK distributor for the unregistered version of the new modular GEM-View 3. It is the most comprehensive picture conversion utility available, reading around 40 different file formats from the ST, Amiga, Macintosh, PC, Sun and others. Pictures may be saved in IMG, ESM, GIF, IFF, BMP, TGA or TIFF formats. The good news for UK users is that GEM-View may now be registered in the UK. The latest unregistered version of GEM-View (presently v3.02) will always be available directly from Floppyshop. GEM-View 3 is on ART.3485 and is at a special price of £2.00 or £2.50 including a copy of our catalogue (please state ST or Falcon).

Family Roots

Family Roots is an invaluable aid to both professional and amateur genealogists. It is designed around an integrated workbench which allows you to create your family tree graphically on the screen by linking directly between the individuals. What the Press have said about Family Roots: "Certainly more than you'll ever need, unless you manage to trace your relatives back to Fred and Wilma Flintstone" – Atari ST User. "All in all, the best genealogy program available for the ST and well worth the money if you are considering tracing your family" – ST Format. Family Roots costs ONLY £24.95 (demo disk £1.00). UK postage free, please add £1.50 for Europe or £3.00 for rest of World.

Easy Text Professional Vector

This is an easy to use fully featured Desktop Publishing package for the Atari ST/E, TT & Falcon. It lets you create your own newsletters, brochures, business stationery, notices etc. It produces truly professional results with virtually all printers and comes complete with a 134 page fully illustrated manual. Easy Text Pro Vector requires at least 2 meg of memory and a hard drive or 2.5 meg of memory if you don't have a hard drive. SpeedoGDOS is also required but is NOT supplied. Easy Text Pro Vector costs ONLY £35.95. If you don't have SpeedoGDOS, why not get Easy Text Pro instead for ONLY £29.95. It is almost identical to the Vector version, except that it runs on a 1 meg machine and uses standard GDOS fonts (a number of which are included) instead. Overseas customers please add £2 Europe or £4 Rest of World, for either product.

The Beginners Guide To STOS Basic

This complete programming course for the Atari ST/STE comprises of a 618 page manual and 2 DS/DD disks. It introduces the reader to STOS Basic and takes the newcomer from basic principles through to the development of complete programs. It includes 190 programming examples and guides you through the creation of games, a complete art package, various educational packages and numerous business utilities. The Beginners Guide To STOS Basic costs £29.95 + P&P (UK £3, Europe & Eire £5, Rest Of World £10). COURSE DOES NOT INCLUDE STOS BASIC.

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When is a disk not a disk?

When it's a RAM disk! Günter Minnerup looks at the memory that thinks it's something else...

One of the buzzwords of the computer world these days is virtual, as in virtual reality or virtual memory. It describes something that is only present in appearance, such as the environment in a virtual reality game.

Virtual memory makes the storage space on a hard disk appear to the software as working memory so that the computer can handle files larger than its actual RAM – Calamus SL and various graphics programs on the ST can do this, and both the Mac's System 7 and Windows 3 have virtual memory handling built in to the operating system.

Virtual disks or RAM disks are the opposite of virtual memory in that they set aside a section of actual memory to behave like an ordinary disk drive.

The most obvious benefit of a virtual disk is to single drive owners when it comes to copying entire floppies or even single files, especially when files from different source disks need to be transferred to one destination disk.

The RAM drive acts as a holding area for the data to be copied, and since memory is much faster than the mechanics of a real disk drive, these operations are greatly speeded up.

As an additional bonus, this method cuts out repeated physical disk changes and the tedious disk change prompts from the operating system. And if you're as scatterbrained as me, it also helps eliminate silly errors like confusing disks and ending up overwriting crucial files. There are just two unavoidable drawbacks to RAM disks.

Because they are virtual and only exist in random access memory, all their contents are lost when the computer is switched off. It is therefore essential that you copy everything to a real drive before you finish your session, and if possible automate this process so that you cannot forget. Secondly, every single byte of your computer's RAM diverted for use as a RAM disk is not, of course, any longer available to programs so you must not go overboard configuring a huge RAM disk and then finding that your software will not run!

This latter problem is particularly acute if you only have the standard 640k DOS memory to play with, as is the case with original PC-XTs. With PC-ATs, however, any additional RAM fitted in your computer can be used as extended memory and your RAM disk located there.

Most DOS emulators for the ST let you take advantage in this way of any Atari memory over 1Mb. AT-Speed, for example, includes a device driver called MEGADISC.SYS, which gives up to 2.9Mb with a 4Mb ST.

To make any of the basic 640k available for a more modestly-sized virtual disk, however, you would normally use the RAM disk device driver included with your version of DOS, probably VDISK.SYS or RAMDRIVE.SYS. Like all device drivers, this is installed in your CONFIG.SYS file with the line:

```
DEVICE=VDISK.SYS
```

and there is no need to add any additional parameters if you are happy with DOS's default values of 64k size, 126 bytes sectors and 64 directory entries. To define a 100k virtual disk with 512 byte sectors and 64 directory entries, however, this line would look as follows:

```
DEVICE=VDISK.SYS 100 512 64
```

The precise use of a RAM disk will, of course, depend on your very own working patterns and hardware setup, but one typical example beyond simple disk copying is speeding up a word processor, either by copying the spelling checker onto the virtual drive (probably only possible with larger, extended-memory RAM disks) or keeping the document file there to accelerate automatic autosaves.

In the latter case, it is crucial that you do not switch your computer off – or reset it – before you have copied your work back to the physical storage medium, and DOS batch files are ideal to automate this operation and thus safeguard against human error. Look at this example for inspiration and adapt it for your own purposes:

```
1: @echo off
2: cd \wp
3: copy %1 d: (where d: is the
RAM disk)
4: d:
5: wordpro (or whatever your
word processor is called)
6: c:
7: copy d:%1
8: erase d:%1
9: cd \dos
```

There are also public domain RAM disks for the Mac – one popular one is called RAMSTART – but they haven't been used as widely, presumably because most Mac owners soon gave up trying to work with one floppy only and Mac applications have always tended to be a bit more memory-hungry than their plain DOS equivalent (a situation which has been reversed with a vengeance following the arrival of Windows 3 for PCs).

Nevertheless, they can be useful in emergencies – such as a hard disk breakdown like I had recently – to hold the System and Finder files which the Apple operating system needs to access with neurotic frequency.

Your floppy drive is then free for the actual applications and you are effectively working with the equivalent of two floppy drives, except faster because Mac floppies are very slow indeed.

You probably need at least 1Mb of memory though, given the size of the System and Finder.

```
DRIVPARM=/D:0/C/F:2/H:2/S:9/T:80
DRIVPARM=/D:1/C/F:2/H:2/S:8/T:80
SHELL=\COMMAND.COM  /P /E:512
BREAK=OFF
BUFFERS=15
FILES=20
FCBS=4,4
FASTOPEN=512
LASTDRIVE=E
HISTORY=ON, 256, OFF
COUNTRY=001,,C:\DOS\COUNTRY.SYS
HIDOS=OFF
DEVICE=C:\DOS\ANSI.SYS
DEVICE=C:\DOS\CACHE.EXE /S=64
DEVICE=C:\DOS\VDISK.SYS

C:\>dir d:

 Volume in drive D is VDISK 1-1
 Directory of D:\
File not found

       0 File(s)     62464 bytes free
```

VDISK in action: The (empty) directory listing for the virtual drive D, part of the CONFIG.SYS with the RAM disk device driver installation in the final line

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Serial killer!

Kick your jaded serial port into life with this wonder patch for STs and the Falcon, with André Willey

This month's Aspects Communications column starts with a short history lesson. Back in the good old days, there was just one type of Atari ST. Sure, there were different amounts of memory, and some changes in the TOS/GEM operating system, but basically the machines were broadly similar.

One of the common points was the use of the MFP 68901 chip to handle serial (modem) communications. Another common point was that the RS232 handling routines were invariably broken in some new and innovative manner with every new machine.

Since those heady days the situation has become ever more complicated as Atari introduced machines which didn't rely solely on the MFP chip for comms work.

The first was the TT, then the MegaSTE – both of which supported an extra serial chip, the SCC 85C30. Then along came the Falcon, which only supports the SCC chip, but half-heartedly tries to pretend that it has an MFP.

FACILITIES

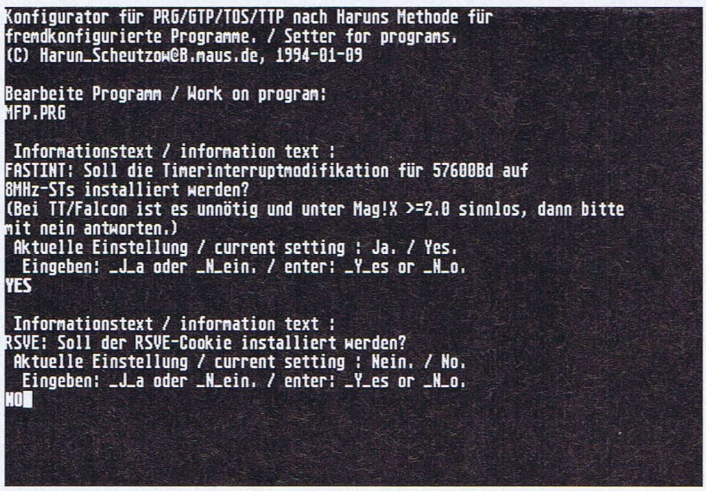
Each of these serial chips has different facilities available, forcing software authors to find new and ever more inventive ways to accomplish simple tasks such as checking whether the modem is currently online.

None of these machine variations even supports baud rates of greater than 19,200 – although the SCC chip can happily run at four times that rate, and greater, with just a couple of extra numbers in an internal TOS table.

What has been required for a long time is a serial port patch that not only cures the various bugs in older versions of TOS, but also provides a common interface for the different types of serial port which may be found on Atari computers. German programmer Harun Scheutzow has at last developed such a tool, in the form of his HSMODEM2 package.

Rather than trying to patch further into the limited and bug-ridden Atari code, Scheutzow decided to start from the ground up, and completely rewrote the driver system. This gave rise to a two-stage installation process.

The first file, DRVIN.PRG, contains the core code to allow the new drivers to be loaded and linked into the existing operating system.



Thankfully, if your German isn't up to scratch, there is an English explanation of this set-up screen in the documentation files

The other part of the system is the drivers themselves, which support each design of serial port that Atari have created. Scheutzow has also created drivers for the assorted hardware modifications which can be used to enhance a machine's performance.

Although the set-up system looks hellishly antiquated and complicated at first – especially since much of it is in German! – the default settings do seem to work fine for most standard configurations of computer.

The simplest way to get started is to remove any current serial port patches you may have in your AUTO folder, and then install DRVIN.PRG and the appropriate driver program(s) for your particular machine (see table).

It is important to ensure that DRVIN.PRG goes into your AUTO folder before the driver programs themselves, as they depend on routines already installed by DRVIN.PRG.

Do make sure that any programs which themselves need to access the serial port are loaded after HSMODEM2, or they won't be able to take advantage of the changes.

Don't worry about using the SETTER.TTP program just yet, unless you have problems with the default settings. If you do need to configure your setup, print out a copy of the appropriate English documentation files before you start.

There are several big advantages to this suite of programs over the existing flow control patches. Firstly, HSMODEM2 completely replaces the old serial port code with new, more efficient, routines. This can have advantages in terms of speed, reliability, and compatibility with multitasking systems such as MultiTOS and Mag!X.

COMMON

HSMODEM2 also provides a common interface for programmers, which means that once a piece of software has been written to use the system, it should be able to detect and utilise future hardware and software improvements relatively easily.

The author is currently engaged in discussions with Atari in the hopes of making his enhanced serial port interface available as part of newer versions of TOS which, if implemented, could mean that more and more programs will be able to support enhanced features which previously had to be laboriously hand-coded for each different type of computer.

Perhaps the most important advance is HSMODEM2's support for high baud rates, even on an 8MHz ST – although a hardware mod is still required for the original MFP-based STs.

Since these extra baud rates can be accessed by selecting the now-obsolete slow rates of 110, 134 and 150 baud, any well-written comms package should now be able to take advantage of 38,400 baud and above, which is essential when using high speed V32bis/V42bis modems.

HSMODEM2 should be available from all good PD libraries, or can be downloaded from bulletin boards, plus of course from the atari.st conference on CIX.

What do you get?

Here's a list of the programs supplied in the HSMODEM2 package:

DRVIN.PRG The loader/installation program. Must be loaded before one or more of the following driver programs in your AUTO folder.

MFP.PRG Driver for standard ST-type ports (required for ST, STE, Mega-STE, TT).

SCC.PRG Driver for standard SCC-type ports (required for Mega-STE, TT, Falcon).

MFP_TT.PRG Driver for second MFP port on a TT (TT only).

MFP_FALC.PRG Driver for a hardware-modified MFP port on a Falcon (modified Falcon only).

ESCC.PRG Driver for user-upgraded SCC (85230) port (modified Mega-STE, TT or Falcon only).

ST_ESCC.PRG Driver for user-fitted SCC port (modified ST only).

SETTER.TTP The configuration program. Run it (with one of the above filenames as its parameter) in order to reconfigure a driver.

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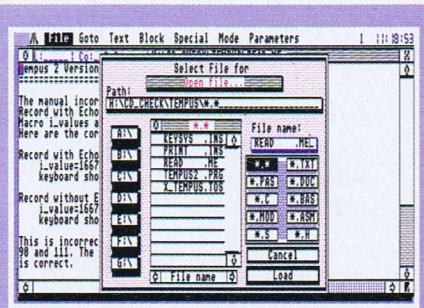

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To order either of these great products send this order form to HiSoft, The Old School, Greenfield, Bedford MK45 5DE. This offer ends on March 31

Here is the news

To many people, newsletters are what DTP is all about. Andrew Wright takes an in-depth look at their design

Ask someone about desktop publishing and the chances are they'll mention the word "newsletter" somewhere along the line. It's the archetypal DTP document that almost everyone has had a bash at producing.

In the States there are reputed to be over a million regular newsletters in existence – there's even a newsletter about newsletters!

One reason for the popularity of the newsletter is that it is very hard to beat as a means of communication – almost anything goes in a newsletter, whether it's a cheeky one-liner or a two-page treatise on the origin of black holes or the meaning of life. They are used in different ways, too.

Most are used as a means of exchanging ideas and information. Within this category are the subscription (paid for) newsletters which offer valuable information such as investment advice or sales ideas and the monthly or quarterly publications put out by societies, clubs and other organisations to keep people in touch.

Others are used in a sales or public relations role. Some companies mail out newsletters whose stories and features are aimed at persuading the readers to buy goods.

My local county council sends out regular newsheets telling me what a wonderful job they're doing with my council tax, presumably in the hope that I'll continue to pay it.

If you're reading this page, the chances are that you have an idea for a newsletter or you already produce one. Over the next few issues we'll take the newsletter apart, looking at main components and the devices that can be used to make it look better in order to do the job it was designed to do – communicate.

OBJECTIVE

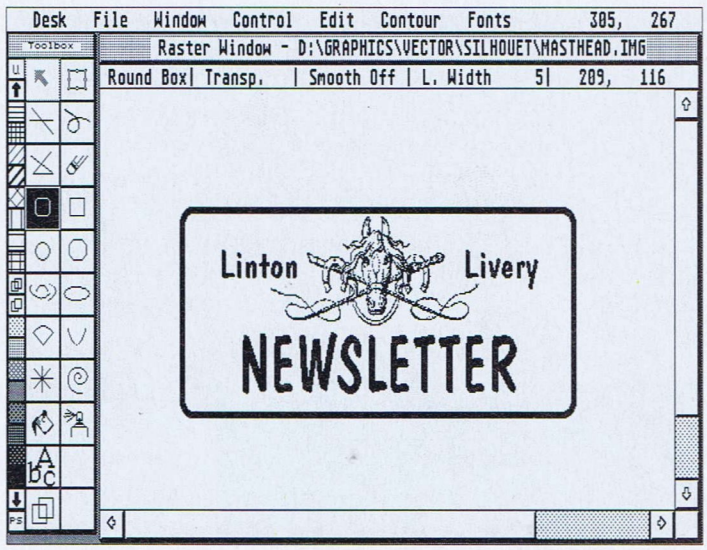
Perhaps the best way to start is with the name. You need a suitable title to give it a sense of identity and preferably one that reflects its objective. It's pretty dull calling the Rare Frogs Appreciation Society newsletter *RFAS Monthly News*! You demonstrate to the world your own lack of imagination.

Something a little more catchy might be in order – how about *The Pond Dweller* or *Hoppin' About*, for example? You can always add a subtitle underneath to explain the newsletter's role. It's worth a lot of thought – it's no use dreaming up a cracker of a title once the first issue has hit the streets...

The masthead, the plate at the top of the page that contains the title of the publication and other information, is probably the most important single design element. It will be a constant in subsequent issues, enabling readers to spot your newsletter quickly, and one which might well make or break the newsletter on its first appearance. Mastheads can be designed inside your DTP program or out, depending on your software's capabilities. As the size is known and will remain constant, you can even use a bitmap art package or a special text handling program like Textstyle as long as you work to the final output resolution and create the masthead at the size at which it will be used.

For newsletters that are to be photocopied, it's also a good idea to test the design by photocopying it a few times.

Next month we'll look at masthead design in more detail and the effects you can achieve with entry level DTP packages.



Silhouette in bitmap mode

FONT OF THE MONTH

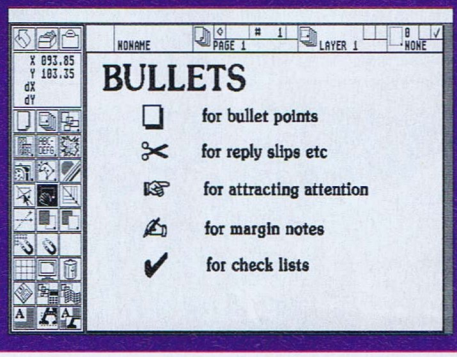
This month's font is more of a category than a particular typeface. Dingbats is the common generic term but there are dozens of variations that can be used to enhance documents.

Fonts like Monotype Sorts or Zapf Dingbats can be used with any typeface combination because they aren't typefaces in the strict sense of the word. They are best described as clip art fonts – they contain pictures and shapes that can be easily aligned with existing type.

The most common usage is for bullets – graphic devices at the start of sentences that help them stand out and lend their name to the phrase "bullet points". They are widely used in presentations and in education as they provide a good way of summarising information.

There are more uses for Dingbat fonts though. Consider the same symbol used as a decoration, to add some style to a headline. A string of half a dozen Dingbats provides you with "instant" clip art which can easily be aligned with the text it encloses.

In many old books, paragraphs were ended with flourishes, many of which can be found in Dingbat fonts, and you can use them in the same way to separate stories in a newsletter or signify the end of a particular passage. Similarly, you can use simple square graphics to denote the end of a story, a trick often used in magazines.



Dingbat fonts have endless uses....

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3D Key Frame animator and morphing package compatible with the Cyber range from Antic. CHRONOS can create animations in all Atari resolutions and supports Maths coprocessor in TT and Falcon. Loads Lexicors 3D4 and Cubers 3D2 files, creates 3D4 and Antics DLT sequential image files. Includes Wireframe and solid rendering with Phong, Gourad and Flat/Shading interpolation. Object Group and World Depth Cueing. Object Face Smoothing which removes facted appearance. Automatic colour palette. The Animation features include, Independent timelines, Morphing, Object Cycling, Object Instancing, Visibility Fades and Blurs, Camera and Director Views plus more.

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XENOMORPH **ST-STE-TT-Falcon** **Requires 1Mb RAM**

3D Object Rendering package which produces photorealistic pictures on any Atari. Xenomorph includes the following features Render objects with smooth shading, Render with highlights, Objects can cast shadows on themselves of other objects, Textures may be wood, grain, marble or you can wrap any image around the object. Each object can have it's own colour palette, 4 different Light Sources, 3 different Camera Types, View and save as SPECTRUM 512, GIF or TARGA files.

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PRISM PAINT II **ST-STE-TT-Falcon** **Requires 1Mb RAM**

The utimate art and animation package for all the Atari family. Comes in modular form so can be constantly updated and improved with new picture format modules. Comes with GIF, DEGAS, IMG, XIMG, PNT and TGA imports, will export GIF, TGA, XIMG, PNT files. Built in virtual screen, supports GDOS (inc Speedo) fonts as well as Signum fonts. More features than can be mentioned here.

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Keeping one step ahead of the law

In the third and final part of his series on the law and your business, Richard Williams looks at insurance and some taxing matters

If you employ someone in your business, it is a legal requirement that you take out Employer's Liability Insurance. Not only that, but your certificate has to be displayed in the workplace.

This insurance will protect you against claims for damages brought by employees or their families for injury or death in the course of work.

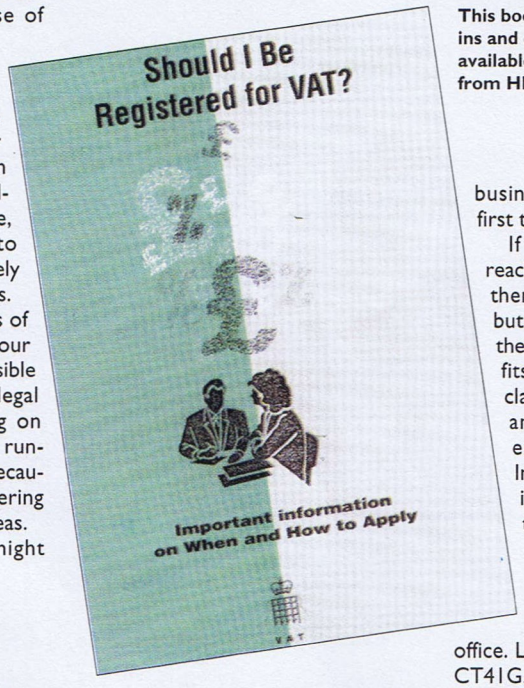
All vehicles used in your business must, of course, be insured by law. The private insurance you take out for vehicles not used in connection with a business will not normally cover you for business use, so be careful if you intend to make use of an existing, privately insured vehicle in your business.

There are many other forms of insurance which will protect your business from a variety of possible claims. Not all of them are legal requirements but, depending on the type of business you are running, you may find it a wise precaution to take out policies covering one or several of these risk areas.

Types of insurance you might wish to look into include:

- public liability
- product liability
- professional indemnity
- goods in transit
- premises (fires and other perils like burst pipes, and property owner's liability if not covered by a public liability policy)
- employment protection
- cash loss (if your business involves handling large amounts of cash, it's sensible to guard against theft or loss)
- fidelity guarantee and internal theft (protects against possible dishonesty by your own staff)
- consequential loss (to maintain the financial position of your business should your premises be out of action for a while due to an insured peril such as fire)
- personal health and life insurance, and pension.

Contact a reputable insurance broker or the Association of British Insurers (071-600 3333) for further information. The Association publish a free booklet which is invaluable to people seeking information on all kinds of business insurance.



This booklet explaining the ins and outs of VAT is available free of charge from HM Customs & Excise

TAX

You can forget about PAYE (Pay As You Earn) income tax if you become a sole trader or a partner in a business. From the moment you start up in business, your income tax will be based on the profits of the business.

Don't make the mistake of thinking that your first year is tax-free. You pay in arrears as opposed to as you go along, the method you will be used to if you are or have been an employee of a business. Be sure to make an allowance for the tax you will have to pay if your business makes a profit in the first tax year.

If your business does not reach profit in the first tax year, there will be no tax to pay – but don't forget that you will therefore receive no tax benefits which could normally be claimed in respect of capital and several other kinds of expenditure. Your local Inspector of Taxes must be informed when you begin trading.

Traders and Partnerships do this on Form 41G which you can get from your local Inland Revenue office. Limited companies use Form CT41G.

Businesses must operate the income tax system in respect of any employees it has, and a limited company must operate PAYE for its directors as well.

A new employers' starter pack is available from your local PAYE Office. This contains all the information you need in order to comply with the regulations governing employees' taxation.

Apart from tax on any profit the business makes, sole traders/partners must each also pay Class 2 National Insurance Contributions. The business will also have to pay Class 4 Contributions along with the tax on its profits.

Before starting up in business, you should contact your local Department of Social Security (DSS) office and obtain the leaflets NI.41 and NI.255.

The first informs you about Class 2 contributions. The second is a direct debit form that will enable you to pay Class 2 contributions monthly out of your business bank account.

Directors of limited companies pay Class 1 Contributions to the Inland Revenue along with their PAYE income tax, and the company pays an employer's contribution.

THRESHOLD

If, at the end of any month of trading you find that the taxable supplies (the sales) of your business exceeds the registration threshold for Value Added Tax (currently £45,000) you will most likely have to register for VAT by law.

To register, contact your local Customs and Excise Office, which will provide much useful information on how the tax works, and how you can account for it.

Ignorance is not bliss!

Unfortunately, ignorance of the law regarding business is no defence if you are found to be breaking it, so it's better to err on the side of over-caution than to wait for problems to arise.

That means taking advice from the experts whenever you are unsure or confused. Most, if not all, of the advice you require initially is free of charge from the likes of Customs and Excise, Trading Standards and local enterprise agencies.

Use your ST to maximum advantage. A good financial control package, a fast word processor, a spreadsheet in which you can do lightning quick calculations on different sets of data and a database to store all the contacts you will need to ensure full compliance with the law, will all help take the strain out of this very necessary work.

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Switched on

John Hetherington has a brainstorm, and tries to be more switched on this month!

One of the problems of owning a Falcon, oddly enough, is the large number of screen resolutions and different monitors it supports. While this might sound like a joke to the poor old ST owners out there who haven't yet seen the light, it can be a pain in the rear end for developers wanting to try out software on the four different screen types the Falcon can use.

There are no less than three monitors on my desk – an Atari SC1224 colour, an Atari SM124 mono and a cheap 'n' cheerful SVGA – all of which regularly get connected to the Falcon for doing different things.

Add a portable TV and video that appear now and again and there's a fair old strain being placed on the poor machine's video ports, not to mention the legs of the desk. Gasteiner have come up with an interesting little invention that should help the former considerably without adding to the strain on the latter.

The Falcon monitor switch box is a black plastic case three inches long and two inches wide. Four types of display can be connected to the box. On one side is a 15-pin female socket for the input from a standard VGA or SVGA monitor and one the other side are two 13-pin female sockets for connecting both Atari colour and mono monitors and two phono-style socket for connecting a TV and audio source. All four can be connected at once and attached to the Falcon via an 18in cable which plugs into the Falcon's proprietary video port. A two foot long blue wire extends from the box to a plug for one of the Falcon's paddle ports and there's an unmarked three-way switch on the box for choosing the input device.

The switch box does save a lot of wear and tear on the video port and leads, not to mention fingers and thumbs. Despite the lack of any instructions and the unmarked switch, it is easy to use and set up although the paddle port lead is a little irritating. For those wanting to use different monitors it is a worthwhile investment, especially as the Atari adaptors themselves cost around £10 each. The switch box costs £69.95 from Gasteiner who can be contacted on 081-345 6000.

DSP POWER

All Falcon owners will at least have heard of the DSP – it's the bit that should make the Falcon superior to almost anything else on the market. Unfortunately the number of applications that actually use it are few and far between at present. A year ago Atari were claiming there were all sorts of DSP-based applications just over the horizon, from high speed modems to voice mail.

While not normally one to throw cold water on things, it just hasn't happened – although the software that does use the DSP is impressive indeed.

Doug Little, the Scottish programmer responsible for the eagerly awaited Chroma 24, has carried out dozens of tests to compare the Falcon with other high powered workstations and his conclusion is that the Falcon/DSP combination is far more efficient than an equivalent 486 PC.

For example, morphing a 720 x 486 pixel true colour image with a hundred control lines took 18 minutes on the Falcon using the 32MHz DSP.

Long enough to make several cups of coffee, I agree, but on a 486DX/33 PC the same task would take around 30 minutes and while it only took two minutes on a Silicon Graphics 4D workstation (the kind used for special effects in films like *Terminator 2*), we are talking telephone numbers for an asking price.

Chroma uses the DSP, of course, for all sorts of operations, including rotating and skewing image blocks and morphing one image into another. It has to be the hottest Falcon program released yet – keep an eye out for a demo version very soon.

Falcon PD of the month

For those who want to sample the power of the DSP, there's good news. The Brainstorm programming team, who developed the Jpeg decoder alongside Atari France, have just released the program and a sample accessory into the public domain.

It should be filtering into PD libraries as you read this and is well worth getting hold of. Decoding Jpegs with programs like GEM-View is incredibly fast – the decoding itself is claimed to be some 12 to 20 times faster though on average, due to hard disk transfer, it drops to seven or eight times faster.

The Brainstorm decoder is good enough to add a whole dimension to Jpegs, which are often pretty ropy, especially at high compression rates. Coupled with GEM-View's excellent dithering techniques – try selecting nearest colour with octree colour mapping – even a fairly ordinary Jpeg can be transformed into a startlingly realistic image even in 256 colour mode.

As they can now be loaded as fast as any other graphics format, they are well worth using, especially for real life images such as landscapes and people.

Breathing new life into tired Jpegs – a standard Jpeg dithered using the default method (left) and GEM-View's octree colour mapping (right)

The Brainstorm Jpeg viewer. It mucks up the palette but it ain't half fast

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The Adventures of Robin Hood	12.99
The Greatest	**21.99**
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Kick Off + Extra	4.99
Lure of the Temptress	5.99
Psycho Selection Soccer	9.99
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JOYSTICKS/ACCESSORIES

10 Capacity 3.5" Disk Box	1.99
40 Capacity 3.5" Disk Box	4.99
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Cheetah 125+	7.99
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Gravis Gamepad	15.99
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Quick Joy 2 Turbo	10.99
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Better Maths (12-16 GCSE)	13.99
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Picture Fractions (7-10)	9.99
Reasoning with Trolls (5-12)	9.99
The Three Bears	13.99
Tidy The House (6-10)	9.99

3.5 BLANK DISKS

	TDK VERBATIM	PRECISION	UNBRANDED	RECYCLED
10	7.99	6.49	5.99	4.50
20	14.50	11.99	10.99	8.50
30	21.99	17.49	15.99	12.00
40	28.49	21.99	20.49	15.00
50	35.00	26.00	23.99	17.50
100	65.00	49.99	44.99	35.00

telephone 0234 843388
facsimile 0234 840234
technical 0234 841882
(technical is available from 2-5.30pm)

power computing ltd

series 900

The Series 900 HD features a buffered through port, optional battery backed clock, high speed 20ms seek rate, write protect switch, power supply and ICD interface and utility disk.

Series 900 52QMB **£299**
Series 900 120MB **£349**

icd link

The 'Link' from ICD includes an external SCSI host adaptor, allowing the Atari ST to connect to external SCSI devices e.g external hard disks, optical drives and CD-ROM drives which were originally designed for the Apple Mac, IBM PC etc. Just plug-in and no power supply is needed.

ICD 'Link' **£89**
AD SCSI Plus **£89**
AD SCSI ST **£79**
ICD Pro Utilities **£39.95**

power scanner

The award winning scanner from Power Computing allows you to scan up to 400DPI in real-time greyscale, with an autoscan rate detect. The scanning software included allows you to edit and manipulate any image you scan.

£99

floptical drive

The Floptical stores 20MB of data on a 3.5" disk. ICD 'Link' is required.

Floptical drive **£329**
Floptical disk ..... **£22** *each*

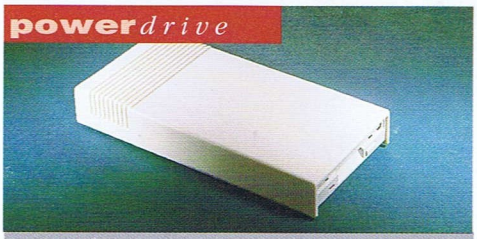
printer range

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

miscellanous products

PowerMouse **£15**
Power Clock **£17.99**
Optical Mouse **£29.95**
Replacement Optical Mat **£10**
100 Branded Disks + Box **£49**
10 Branded Disks **£4.99**
Intruder 1 Joystick **£29.99**
Maverick 1 Joystick **£15.99**
Python 1 Joystick **£9.99**
Apache 1 Joystick **£7.99**

power drive



The award winning external disk drive which includes a virus blocker, built-in Blitz Turbo and is able to boot from drive B. This is the ultimate in external disk drives for the Atari ST computer.

£60

power drives

Power Computing manufacture many disk drives for the Atari ST, all of which are made from high quality components.

PC720P (Inc. PSU) **£55**
PC720I (Internal) **£39.95**
(360K upgrade drive, needs case modification)
PC720 OI (Official internal) .. **£45**
(720K replacement drive)

drive-b cable

If you have an internal drive that is not compatible with 'boot from drive B', this cable will solve your problem.

Drive-B Cable **£9.95**

blitz turbo

Back-up disks at lightning speeds, Blitz copies from the internal to the external drive and cleverly by-passes your ST's controller chip. In around 40 seconds you can back-up an ST disk, what's more you can now switch between your disk drive and Blitz Turbo without disconnecting your Blitz interface. Probably the best Atari disk copier on the market. (1988 Copyright act applies)

Blitz Turbo **£25**

supra modems

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

Supra Fax Modem+ **£119**
Supra Fax Modem 32BIS **£249**

ring interruption

Use with Ultimate Ripper or SuperMon. Stop games or programs in their tracks, search for infinate lives and hack with the code. A press of a key and the program is restarted.

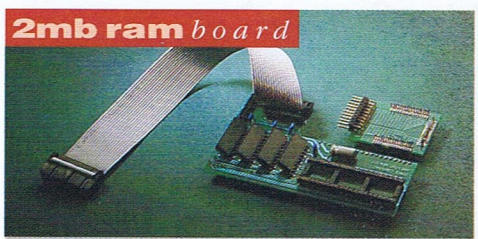
Ring Interruption **£15**

super mon

SuperMon comes with all the features of the 'Ultimate Cartridge' and more. Some of the features included with SuperMon are: Program Switcher- allows two programs to be in the memory simultaneously and switched between at the touch of a key, Printer Spooler- allows files to be printed at the same time as other tasks, Comprehensive Debugger- disassemble programs and step through them, intercept OS calls, search memory or find where a routine is called from automatically, Diagnostics Function- check the internal functioning of your ST disk analyser, custom format disks, read/write sectors, hide files, Utilities- the SuperMon also has many utility functions available, including reset proof RAM disk, mouse trap function, time display, screen snapshot and 50/60Hz display toggle.

Ultimate Cartridge **£25**
Including SuperMon **£35**

2mb ram board



The Atari RAM Board requires no soldering and plugs directly inside the ST using the latest capacity RAM chips. Full fitting instructions are supplied. The ST RAM Board is available either as a 2MB or 4MB RAM expansion.

£99

4MB RAM Expansion **£169**
1MB SIMM for STE **£35**
512K RAM STFM **£45**

order form

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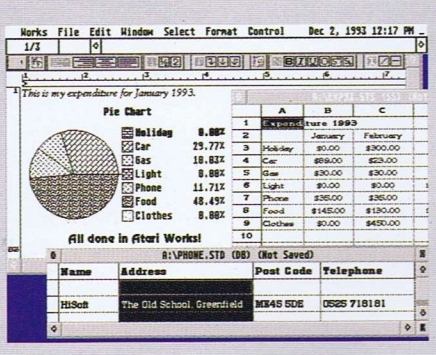
New Software for a New Year

Business Applications



Atari Works

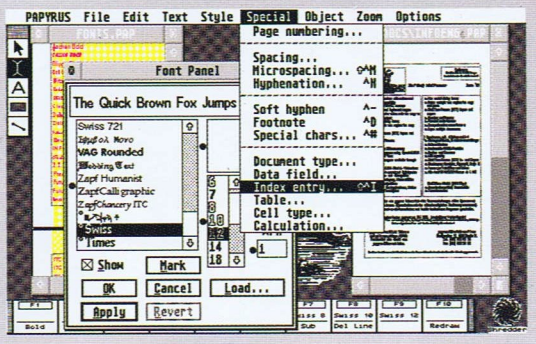
The comprehensive, up-to-date, integrated business package for any Atari 680x0 computer with 2Mb of memory and a hard disk. Atari Works contains a word processor, a spreadsheet and a database in one program, so that swapping between the applications is a piece of cake!

The word processor contains all the normal editing functions plus the drawing of lines & boxes, graphic import, spell checker and thesaurus, mail merge etc.

The spreadsheet is as powerful as many people will ever need - organise your data clearly and simply as text, percentage, fixed or floating-point or currency and then, using the 53 built-in functions, create interdependancies between your information. Then display the results graphically with pie charts, line graphs etc. and cut/paste these into the word processor!

The database is a joy to use; create as many fields as you need and position them on your form using the mouse. Once the data has been entered you can sort it, match records, find specific entries and produce reports, all quickly and simply. It is easy to import data from other databases and export data for use with the mail merge facility of the word processor.

All modules support the new SpeedoGDOS and are fully integrated - Atari Works is probably the most powerful integrated package yet seen on the Atari computers.

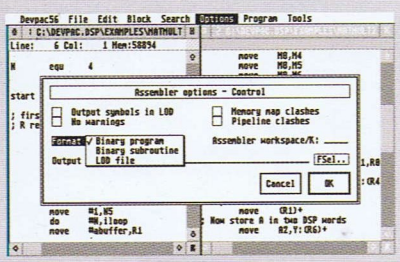


Papyrus

If you need a high-end word processor with many desktop publishing features then Papyrus is the new package for you.

The application is ideal for producing all types of professional-looking output, from one-page flyers to complete manuals. With extensive SpeedoGDOS support, paragraph styles, headers, footers, footnotes, reliable undo, automatic table of contents, flexible zoom, index creation, full margin control, freely adjustable paper format, letter micro-spacing, GEM vector import, text flow around objects, master pages, RTF support and more, Papyrus is the premier choice for all serious writers and designers.

Programming



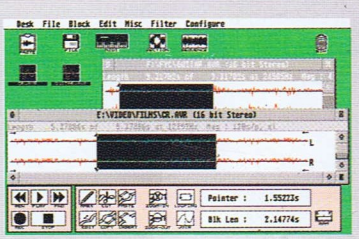
DevpacDSP

Another new programming package joins the HiSoft family of languages for the Atari 680x0 computers. DevpacDSP is a complete development system for the Motorola 56001 digital signal processor used in the Falcon030.

Remember that we've also updated our other programming languages for the Falcon. Devpac 3.10, Lattice C 5.60 and HiSoft BASIC 2.10 all contain extra libraries/include files for the Falcon, an extended debugger that works in all Falcon resolutions and much more. The *Modern Atari System Software* book (free with Lattice C 5.60) gives full Falcon developer documentation.

DevpacDSP consists of a fast 56001 assembler, fully integrated with our friendly GEM editor, which supports macros, conditional assembly, include files and direct production of .LOD files or Falcon binary plus an easy-to-use GEM-based debugger for disassembling and stepping through your code, modifying registers, setting breakpoints etc.

Video/Music



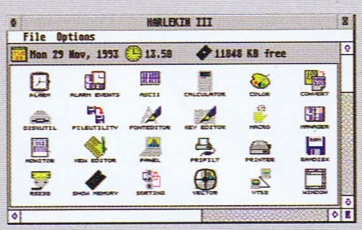
VIDEOMASTER

clarity

The best-value real-time video digitiser you can buy. VideoMaster is available for the ST/STe and, in a special enhanced true colour version, for the Falcon. VideoMaster RGB includes our new colour splitter, ColourMaster and produces amazing quality colour stills.

Clarity is our latest sound sampling system for the Falcon. Featuring an extensive sample editor, a complete drum sequencer and a powerful MIDI controller, Clarity is an ideal companion for all musicians. Includes extra hardware for CD (44.1KHz) and DAT (48KHz).

Utilities



HARLEKIN 3

This popular collection of utilities for all Atari computers gets another facelift. Harlekin 3 contains a multitude of enhancements including a multi-file editor, a new communications module with a scripting language, support for high density disks, a new Alarms module, for use with the Manager, separate keyboard and font editors and much more. The whole package has a new look, with all modules in a window or a flying dialog so that they can be moved and the memory configuration is now even simpler. Upgrades from Harlekin 2 cost only £19.95.

All products on this page are either available now or by the end of January '94 - please call to confirm availability and pricing.

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